Ahalanui Park Development

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County of Hawaii

DEPARTMENT OF PARKS AND RECREATION
25 Aupuni Street, Room 210 • Hilo, Hawaii 96720-4252
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September 30, 1998

Mr. Gary Gill, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, HI 96813

Dear Mr. Gill:

Subject: Final Environmental Assessment and FONSI for Development of Ahalanui Park

The Hawaii County Department of Parks and Recreation has cooperated with the Federal Emergency Management Agency (FEMA) to prepare a federal-state Environmental Assessment (EA) for the project. Our agency has reviewed the comments received during the 30-day public comment period which began on March 8, 1998. The agency has determined that the project will not have significant environmental effects as defined in Chapter 343, HRS, and Title 11, Chapter 200, HAR, and has issued a Finding of No Significant Impact (FONSI).

Attached are four copies of the Final EA and a publication notice for the *OEQC Environmental Notice*. Please publish this notice in the next edition of the *Notice*. Please call Norman Olesen of the Hawaii County Mayor's Office at 961-8565, if you have any questions and also to confirm the publication date. Our consultant has sent Nancy Heinrich of your staff a project description via e-mail.

Juliette Tulang for
George Yoshida
Director

1998-10-23-HI-FEA-Ahalanui Park Derelopment

FINAL SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT REPORT

DEVELOPMENT OF AHALANUI PARK, HAWAII COUNTY, HAWAII

Prepared for

Federal Emergency Management Agency
Region IX
Building 105
The Presidio of San Francisco, California 94129

And

County of Hawaii
Department of Parks and Recreation
25 Aupuni Street
Hilo, Hawaii 96720

September 23, 1998

Prepared by

PaRR
Partnership for Response and Recovery
A Joint Venture of Dewberry & Davis and Woodward-Clyde

200 Orchard Ridge Drive, Suite 101
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FEMA-864-DR-HI

and

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TABLE OF CONTENTS

List of Exhibits, Tables and Appendices

Acronyms

°F	degrees Fahrenheit
APE	area of potential effects
BFE	base flood elevation
BMPs	best management practices
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CZM	coastal zone management
DFW	State of Hawaii Division of Forestry and Wildlife
DLNR	State of Hawaii Department of Land and Natural Resources
DOH	State of Hawaii Department of Health
DPR	County of Hawaii Department of Parks and Recreation
EA	Environmental Assessment
EC	enterococci
EIS	Environmental Impact Statement
EO	Executive Order
FC	fecal coliform
FEMA	Federal Emergency Management Agency
FPPA	Farmland Protection Policy Act
FONSI	Finding of No Significant Impact
gpd	gallons per day
HRS	Hawaii Revised Statutes
msl	mean sea level
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NGVD	National Geodetic Vertical Datum of 1929
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
PA	Public Assistance
ROW	right-of-way

Acronyms

SCS	Soil Conservation Service
SHPO	State Historic Preservation Office
SMA	Special Management Area
TMK	Tax Map Key parcel
UBC	Uniform Building Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USACE	U.S. Army Corps of Engineers

1.1 PROJECT SETTING AND BACKGROUND

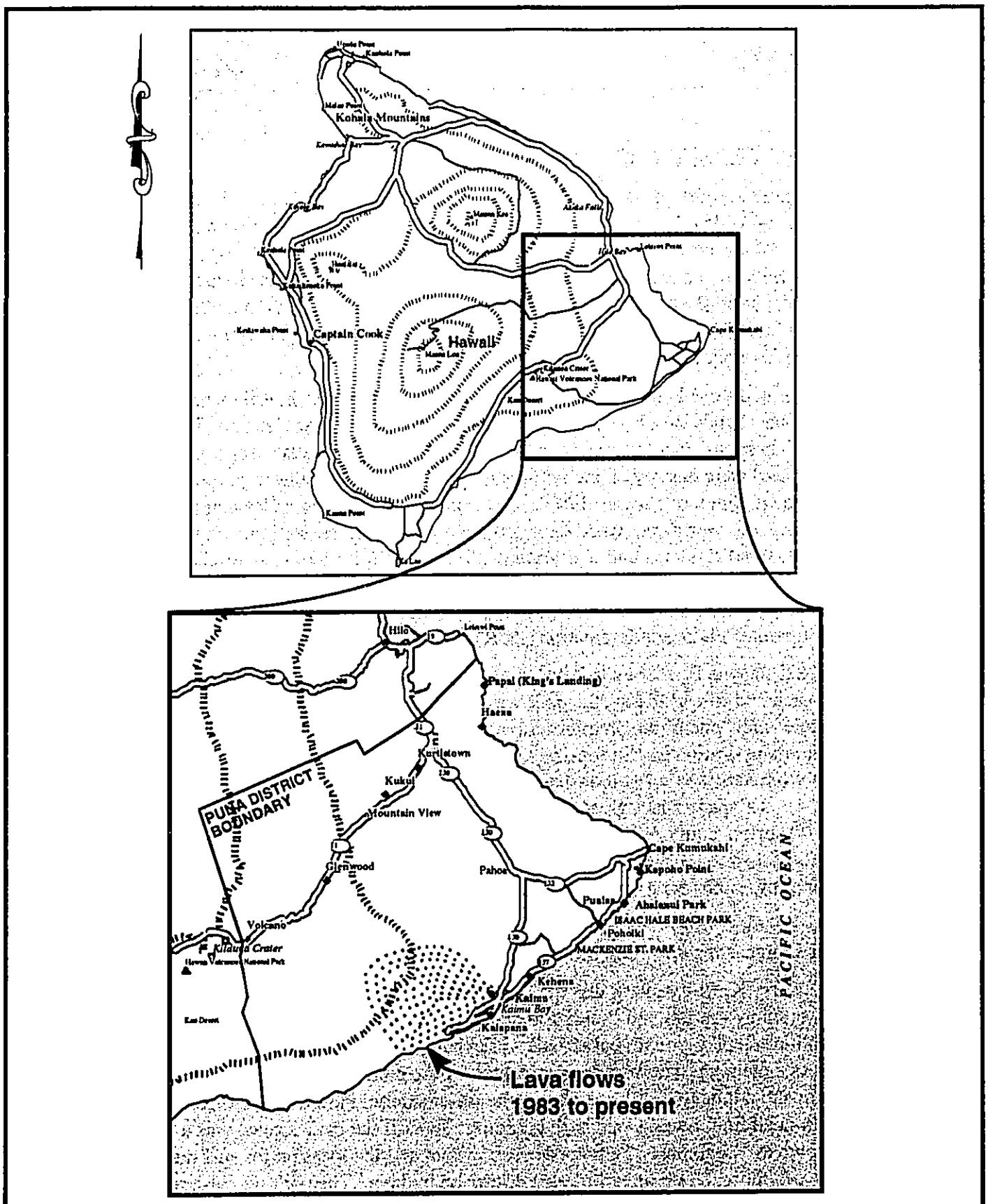
Five large volcanoes form the land mass of Island of Hawaii, or Big Island, in the State of Hawaii. Kilauea, considered to be active 62 percent of the time, began erupting on its east rift zone in January 1983 (University of Hawaii, 1983; County of Hawaii, 1992). By May of 1990, subsequent lava flows had covered an area of approximately 30 square miles in the Puna District of the County of Hawaii (Exhibit 1-1). The lava flows destroyed nearly 200 residences and other structures, filled in the Kalapana oceanfront area, and moved the shoreline as much as 0.75 mile *makai* (seaward) (County of Hawaii, 1992).

Lava flows inundated three Hawaii County parks: Harry K. Brown Park, Kalapana Beach Park, and Kalapana Black Sands Beach. All of these parks were located near Kalapana in the vicinity of Kaimu Bay. These three parks were buried under 50 to 75 feet of lava. Approximately 50 acres of county land were destroyed, including nearly 28 acres of beachfront property with 1.35 miles of shoreline (County of Hawaii, 1992). According to the County of Hawaii (1992), "the beauty of this area was world-renowned" and provided recreation, relaxation, and meeting-places for thousands of island residents and tourists annually. All of the parks were directly accessible by county road and had electricity, telephones, and potable water. Adequate parking was available at each park, and all were supported, maintained, and patrolled by the County of Hawaii Department of Parks and Recreation (DPR) (County of Hawaii, 1992).

The 11.43-acre Kalapana Black Sands Beach was located at Kaimu Bay. Before the lava flow covered the beach and filled the bay, the park was considered "one of the world famous beauty spots in the state" and "one of the premier tourist attractions" (County of Hawaii 1992, 4). The beach was a frequent destination for tourists and a location for filming movies. The loss of the park negatively impacts the tourist industry, "the mainstay of the county economy" (County of Hawaii 1992, 4). Kalapana Black Sands Beach was also a popular location for local residents. As many as 100 surfers could safely use Kaimu Bay. In addition to surfing, the area was a popular location for shorecasting. Other activities enjoyed by local residents and tourists included swimming, sunbathing, picnicking, and snorkeling (County of Hawaii, 1992).

Kalapana Beach Park consisted of 14.97 acres; 5.42 acres were beachfront property. This park was a popular shorecasting and spearfishing spot (County of Hawaii, 1992).

The 22.8-acre Harry K. Brown Park was the largest county beach park in Puna and was heavily utilized year-round by tourists and Puna residents. The park included picnicking and camping facilities; a children's playground; basketball, volleyball, and tennis courts; and a large pavilion, which served as a meeting place and activity center for the community. The park had areas for young children and adults to swim and play in the water safely. Park users also participated in windsurfing, sandsliding, fishing, and bodyboarding. Just off the park's coast was a geologic formation known as "Drainpipes," a favorite surfing spot and the location for surf meets. Despite being off-shore, Drainpipes was also destroyed by lava. The park was also a popular location for watching wildlife. It was a "world-famous viewing site for nesting hawksbill and green sea turtles," and whales and dolphins were often observed off-shore (County of Hawaii 1992, 5).



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PROJ	Ahalanui Park EA			
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TITLE **VICINITY MAP**

PaRR — A Joint Venture of Dames & Moore and Woodward-Clyde
Partnership for Response and Recovery

PROJ NO R953314

EXHIBIT **1-1**

The County of Hawaii applied for funding to replace the three damaged parks under the Public Assistance (PA) program of the Federal Emergency Management Agency (FEMA). The purpose of the PA program is to provide assistance to state and local governments and certain private nonprofit organizations to repair infrastructure and public facilities and to remove debris. This grant program is authorized by the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288, as amended).

1.2 PURPOSE OF AND NEED FOR ACTION

According to the County of Hawaii (1992, 1-4), the loss of the three county beachfront parks:

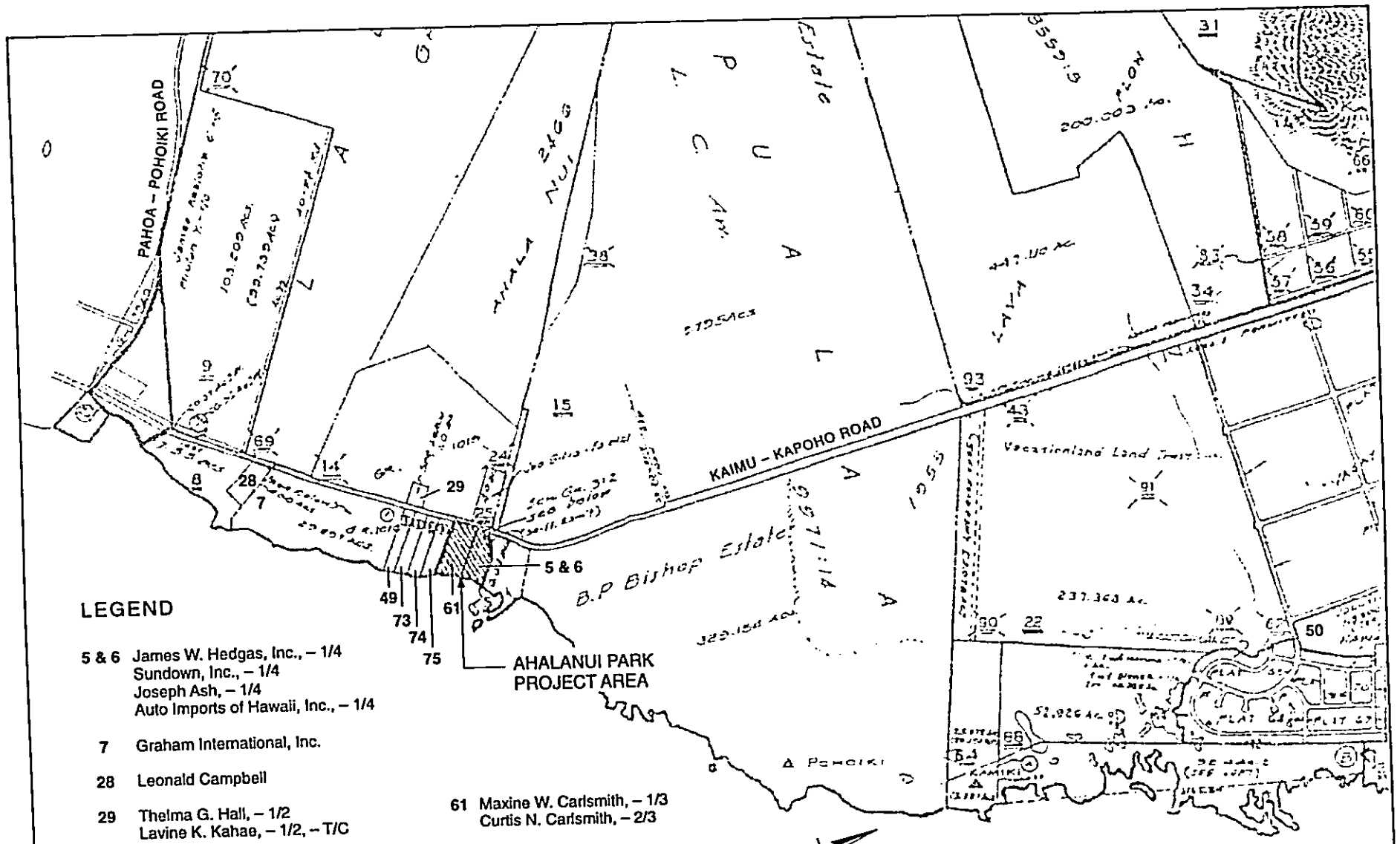
> ...has had a negative impact on tourism in the county, as well as on the traditional native Hawaiian lifestyle, which is closely tied to the ocean....In addition to parks and recreation facilities lost, the cultural traditions in the Kalapana-Kaimu area have been severely impacted. The parks were the center for traditional Hawaiian community activities such as family fishing and surfing, where the *`ohana* (family) gathered and preserved the old ways of life. The mental and spiritual well-being of the native Hawaiian community is closely tied to traditional ocean-based activities, and the community's access to these activities has been significantly impaired by the loss of this beachfront park area.

The loss of the three county beachfront parks have caused "a severe shortage of shoreline park space in Puna and greater pressure on private and undeveloped public shoreline properties" resulting in the "degradation of shoreline areas that are over-used, with no sanitary facilities or maintenance" (County of Hawaii Department of Planning 1992, 6). In fact, there are only two remaining developed shoreline parks in Puna: the 1.79-acre Isaac Hale Beach Park (a county park), and the 6-acre Mackenzie State Park, located along a cliff overlooking the ocean. Visitors to these parks cannot swim, canoe, or participate in many other "ocean activities associated with the Hawaiian way of life" at these parks (County of Hawaii 1992, 6).

The County of Hawaii needs to alleviate the social and economic problems created by the loss of these parks. To meet this need, the county acquired Tax Map Key parcels (TMKs) 1-4-002-005 and -006 in August 1993 and TMK 1-4-002-061 in February 1995. As is shown in Exhibit 1-2, these parcels are located in Ahalanui, Puna, Hawaii County, Hawaii. At the time of the acquisition, the county planned to make improvements to these contiguous properties so that they could be used to replace the lava-damaged parks. No improvements have yet been made. Although all of the county's plans are described and analyzed in this EA, only some of the improvements would be funded with FEMA assistance, as described in Section 2.3.

1.3 SUMMARY OF REGULATORY REQUIREMENTS

The National Environmental Policy Act of 1969 as amended (NEPA), was enacted by the U.S. Congress to require Federal agencies to consider the environmental impacts of Federal actions as part of the decision making process. The Council on Environmental Quality (CEQ) developed regulations that specify how Federal agencies must implement NEPA. These CEQ Regulations



LEGEND

5 & 6 James W. Hedgas, Inc., – 1/4
Sundown, Inc., – 1/4
Joseph Ash, – 1/4
Auto Imports of Hawaii, Inc., – 1/4

7 Graham International, Inc.

28 Leonald Campbell

29 Thelma G. Hall, – 1/2
Lavine K. Kahae, – 1/2, – T/C

49 Ralph E. Allison, Loma D.

50 Roger-Schock Antoinette, – T/E, A/S

51 Vacationland Land Trust

61 Maxine W. Carlsmith, – 1/3
Curtis N. Carlsmith, – 2/3

73 Graham International, Inc.

74 Graham International, Inc.

75 Graham International, Inc.

Source: Dept. of the Tax Commissions, Taxation Maps Bureau, Tax Map, TMK 1-4-2

Project No. R953314	Ahalanui Park EA	LOCATION MAP	Exhibit 1-2
	Partnership for Response & Recovery		

R95331-0300/051998/gos

for Implementing the Procedural Provisions of NEPA are codified in Title 40 of the Code of Federal Regulations (CFR) Parts 1500 through 1508. The CEQ regulations require Federal agencies to conduct an investigation and evaluation of alternatives as part of the environmental impact analysis process, prior to making decisions that may impact the environment. FEMA's regulations for implementing NEPA are promulgated at 44 CFR Part 10, titled Environmental Considerations.

This Environmental Assessment (EA) process was conducted in accordance with NEPA, as well as CEQ's and FEMA's implementing regulations. According to NEPA and its implementing regulations, an EA is prepared to determine whether or not a Finding of No Significant Impact (FONSI) sufficiently documents the consequences of a proposed action. When an EA supports a FONSI, the EA and its associated FONSI satisfies the proponent's need to comply with NEPA. When the EA does not support a FONSI, a Notice of Intent is prepared and the EA facilitates preparation of an Environmental Impact Statement (EIS). Therefore, if this study concludes that no significant impacts would occur from implementation of the proposed action, a FONSI will be prepared and the action will be permitted to occur. If this study finds that significant impacts are expected to occur as a result of the proposed action, then either an EIS would be prepared or mitigation measures would be implemented to reduce all impacts to insignificant levels.

Chapter 343 of the Hawaii Revised Statutes (HRS) is the basis for the environmental impact process in the State of Hawaii. The content requirements and procedures of Chapter 343, HRS, and its implementing regulations, Title 11, Chapter 200, of the Hawaii Administrative Rules, are similar to NEPA and its implementing regulations. A major additional requirement is the need to explicitly evaluate whether impacts are significant according to eleven specific criteria. Appendix A lists these criteria and the findings of the County of Hawaii regarding significance.

An EA (entitled Negative Declaration for Proposed Purchase of Land for Park at Laepao'o, Puna, Hawaii) was prepared by the county in 1993 for the acquisition of TMKs 1-4-002-005, -006, and -061. The 1993 EA resulted in a Negative Declaration for the state, and FEMA executed a FONSI for the acquisition. This 1997 joint Federal-state EA will supplement the 1993 EA to document the environmental impacts resulting from development of the properties into a county park. Instead of merely referencing sections from the 1993 EA, this supplemental EA will repeat text from the 1993 EA, as appropriate.

In addition, the County of Hawaii is considering acquiring and developing three contiguous parcels in Pohoiki, Puna, Hawaii County, Hawaii (TMKs 1-3-008-016 and -033 and a portion of TMK 1-4-002-008). FEMA and the county prepared and circulated a joint Federal-state EA (titled Environmental Assessment: Replacement of Puna District Beachfront Parks, Hawaii County, Hawaii) on the acquisition and development of these properties.

1.4 PUBLIC INVOLVEMENT AND AGENCY COORDINATION

FEMA is the lead Federal agency for conducting the NEPA compliance process for the development of the county park. It is the goal of the lead agency to expedite the preparation and

review of NEPA documents to be responsive to the needs of Hawaii County residents while meeting the spirit and intent of NEPA and complying with all NEPA provisions.

The specific project proposal was developed as part of an ongoing partnership between county officials and community members that had as its goal the replacement of recreational resources lost to Kilauea's lava flows. It is important to acknowledge these broader efforts in order to accurately characterize the large role the public has played in selecting the pond and adjacent parcels as the site for a swimming park. In particular, the Puna Friends of the Parks and the Mayor's Parks Advisory Committee helped create, review, and revise proposals.

The EA process provided an occasion for more intensive public involvement focused on the specific proposal. Prior to and during preparation of the Draft EA, discussions with various stakeholding individuals and groups were conducted, including the following formal meetings:

- September 2, 1997, a public meeting, advertised in the *Hawaii Tribune Herald* and through flyers posted in Pahoa and near the park, at the Pahoa Recreational Center: The principal concerns expressed related to parking design, restroom location, safety of the pond's stairs and sidewalks, the fate of the coconut trees that would be removed to make the parking lot, and security.
- September 9, 1997, discussion with Sandy Masaoka of Lawai'a Ohana O Pohoiki, an association of fishermen in Pohoiki: No concerns were raised.
- September 9, 1997, discussion with Bob Williams, counselor at Pahoa High School: His concerns related to proper involvement of local community, particularly youth, in the park's design and opening. Opening ceremony, signs, and general design should be sensitive to native Hawaiian and environmental concerns.
- September 13, 1997, discussion with Kauilani Almeida of Na Ohana O Kalapana, a group of former and future Kalapana residents: Supplied information and references for maps and plans.

As a result of these meetings, the project has evolved into the proposed action described in Section 2.3. One issue in particular, the design of the parking lot, is still being studied by the county as a result of comments made during the public scoping meetings.

Letters received from interested parties as part of the scoping process can be found in Appendix B. FEMA and the County of Hawaii solicited comment letters on the Draft EA from interested agencies, organizations, and individuals. These letters, and the County of Hawaii's responses, are included in Appendix C.

2.1 ALTERNATIVE SELECTION

According to the 1993 EA prepared for DPR, the Puna Parks Committee, an advisory group made up of area residents, studied available sites for replacement parks. Although a number of alternative sites were identified, few had the ideal combination of location, access to roads and utilities, existing swimming facilities, and owners willing to sell at prices affordable to the county. There were no suitable parcels already owned by the county or state in the Puna District. Except for TMKs 1-4-002-005, -006, and -061, the only privately held beachfront sites for sale were near Kapoho, an area with very poor water quality because of the density of cesspools. No other privately owned sites were available for purchase. The Puna Parks Committee listed as their highest priority in park replacement, "a safe place for the children to swim." Only two privately held sites with swimming potential were found; however, condemnation would be required to take these properties from their current owners. The Puna Parks Committee unanimously decided upon TMKs 1-4-002-005, -006, and -061 as the most suitable location for a county park with swimming facilities (DPR, 1993). These parcels were acquired by the county in 1993 and 1995. The acquired parcels (hereafter referred to as the "subject property" or "proposed site") are described in more detail in Sections 2.2 and 2.3 below.

Because the subject property has already been purchased by the county and this acquisition has previously been evaluated in an EA that resulted in a FONSI and a Negative Declaration, no other site locations will be considered as reasonable alternatives in this supplemental EA. Therefore, only two alternatives will be evaluated in this EA: to develop the subject property into Ahalanui Park (the proposed action) and to maintain the status quo (the no action alternative).

2.2 NO ACTION ALTERNATIVE

Under the no action alternative, the subject property would not be further developed for use as beachfront park. Currently the subject property is operated by the county as a public park. Park users park their vehicles on the property *mauka* (inland) of Kaimu-Kapoho Road (Highway 137), across from the subject property, even though the county's lease to this property expired at the end of 1994. Some park users parallel park on the makai side of Kaimu-Kapoho Road. This segment of the road consists of a single paved lane with narrow, unpaved shoulders. These elements create hazardous conditions for park and road users and their vehicles. The DPR has specifically expressed concern about using the mauka parcel for parking due to the safety of children who must cross a street where their vision (and that of drivers) is obscured by parked cars. In addition, thefts from cars parked on the mauka property have been reported. The parking situation and lack of improvements would likely cause some residents and tourists to continue to illegally use and overcrowd three beach areas in the Puna District: Isaac Hale Beach Park, Kehena Beach, and Kapoho, shown in Exhibit 1-1.

The 1.79-acre Isaac Hale Beach Park at Pohoiki has been crowded with hundreds of visitors daily since the loss of the three county beach parks "raising pressing health and safety concerns" (County of Hawaii, 1992). Although swimming is prohibited at this park because of the

proximity to a state boat ramp, many park users swim and access surfing areas from the park. Swimmers are at risk to injury from fishing boats, and several boats have capsized in the small harbor trying to avoid swimmers. In addition, the existing temporary portable toilets do not meet the demand for current use, potentially creating health problems (County of Hawaii, 1992). As stated in Section 1.3, the county plans to acquire three parcels and develop this land into a beachfront park in the Pohoiki area. Even if this plan is implemented, though, the Puna District would still lack adequate space and facilities for recreational and cultural activities destroyed by the Kilauea eruption.

Kehena Beach is a state property consisting of an undeveloped narrow beach at the foot of a steep cliff. Beach users must park their vehicles on the cliff and hike down a steep trail to the beach. Because vehicles are not visible from the beach, the area has become a frequent target for car thefts and vandalism, despite police stakeouts and investigations (County of Hawaii, 1992). The lack of restroom facilities has created health problems, the beach is not accessible to the physically challenged, and the steep trail is hazardous with a severely undercut cliff posing the potential hazard of collapse.

Since the destruction of the three county beach parks, beach users trespass on private property in the Kapoho Vacationland subdivision to access the brackish ponds and tide pools in the Kapoho area. Water in the ponds and tide pools exceeds state standards for fecal coliform and enterococci. Although the primary reason for the poor water quality is residential cesspools, the lack of restroom facilities at the beach is a contributing factor. Beach users risk serious health hazards by swimming in waters polluted with these bacteria (County of Hawaii, 1992).

2.3 DEVELOPMENT OF AHALANUI PARK (PROPOSED ACTION)

The County of Hawaii owns and maintains the subject property (TMKs 1-4-002-005, -006, and -061), which totals 5.95 acres and has 550 feet of ocean frontage. TMKs 1-4-002-005 and -006 contain a naturally occurring, 0.5-acre, warm-spring pond connected to the ocean by a narrow channel; a structure that was a home when the property was a private residence; and several storage and equipment sheds. The landscaping on the mauka section is a neatly mowed lawn with ornamental trees and shrubs; the makai side consists of natural lava and milo trees near the pond. TMK 1-4-002-061 has no buildings and is essentially an overgrown grassy area with scattered coconut trees throughout the parcel and a dense grove of assorted trees mauka of the shoreline (DPR, 1993).

The county would implement the following improvements to develop the subject property into Ahalanui Park:

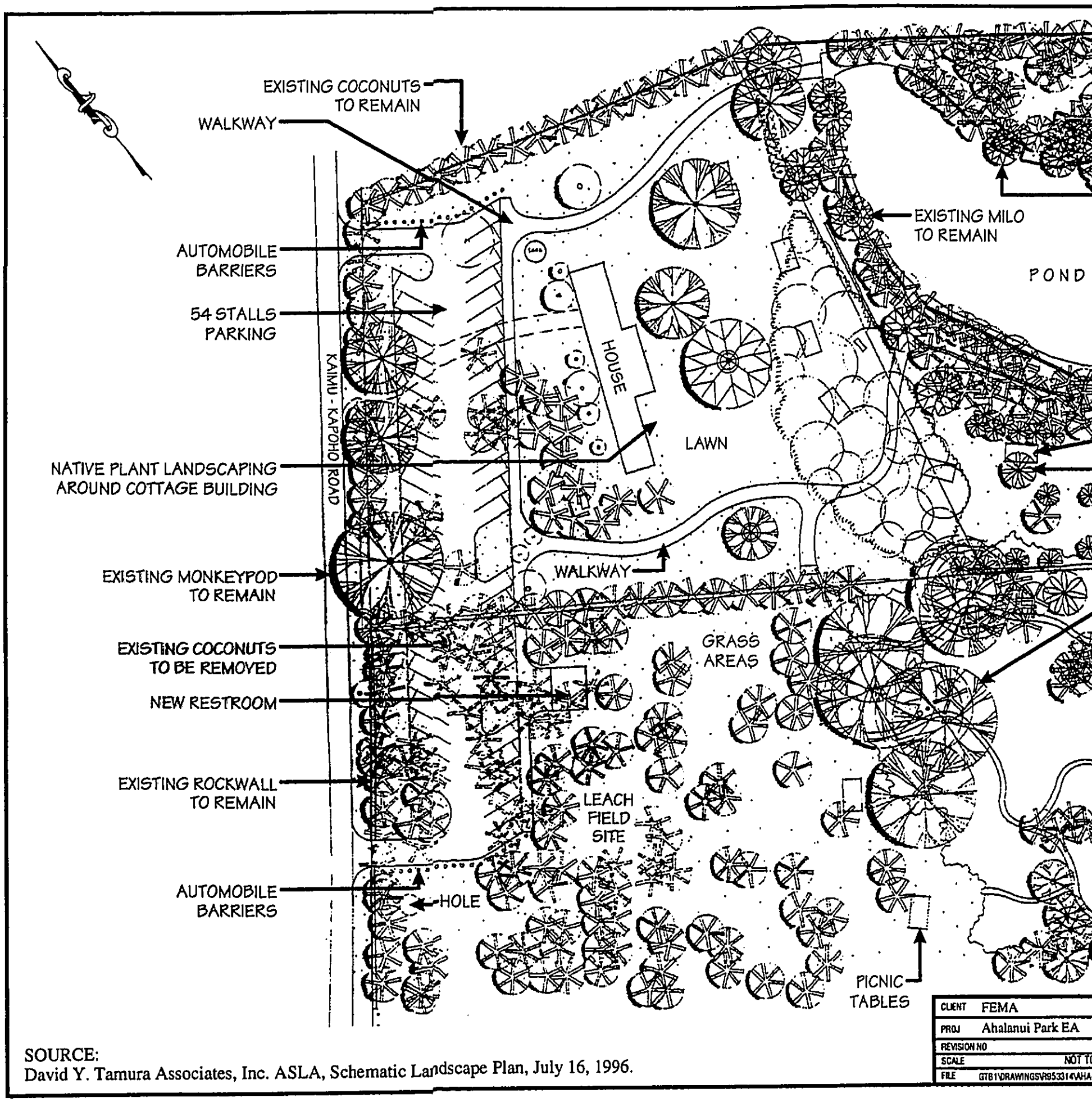
- construct a parking lot with a maximum of 54 parking spaces (a maximum of approximately 0.5 acre) on the mauka section of the subject property
- convert and renovate the existing structures for use as a caretaker's cottage and community center

- establish paved walkways between the parking lot and the pond and foot trails through the vegetation in the southeastern portion of the subject property (partially funded by FEMA)
- improve and widen approximately 2000 feet of Kaimu-Kapoho Road from the southernmost part of the fully improved section to the entrance to the park (partially funded by FEMA)
- construct restrooms (with composting toilets for human waste and a leach field for graywater), picnic facilities (with shelters), and children's playground equipment (partially funded by FEMA)
- extend potable water lines from Kaimu-Kapoho Road to the restrooms and the cottage (partially funded by FEMA)
- upgrade the safety level of the pond through construction of a railing, steps, and lifeguard facilities, and erecting signs (partially funded by FEMA)
- maintain and expand the mowed area for public use
- install appropriate safety measures including telephone and photovoltaic security lighting
- extend telephone lines from Kaimu-Kapoho Road to the cottage

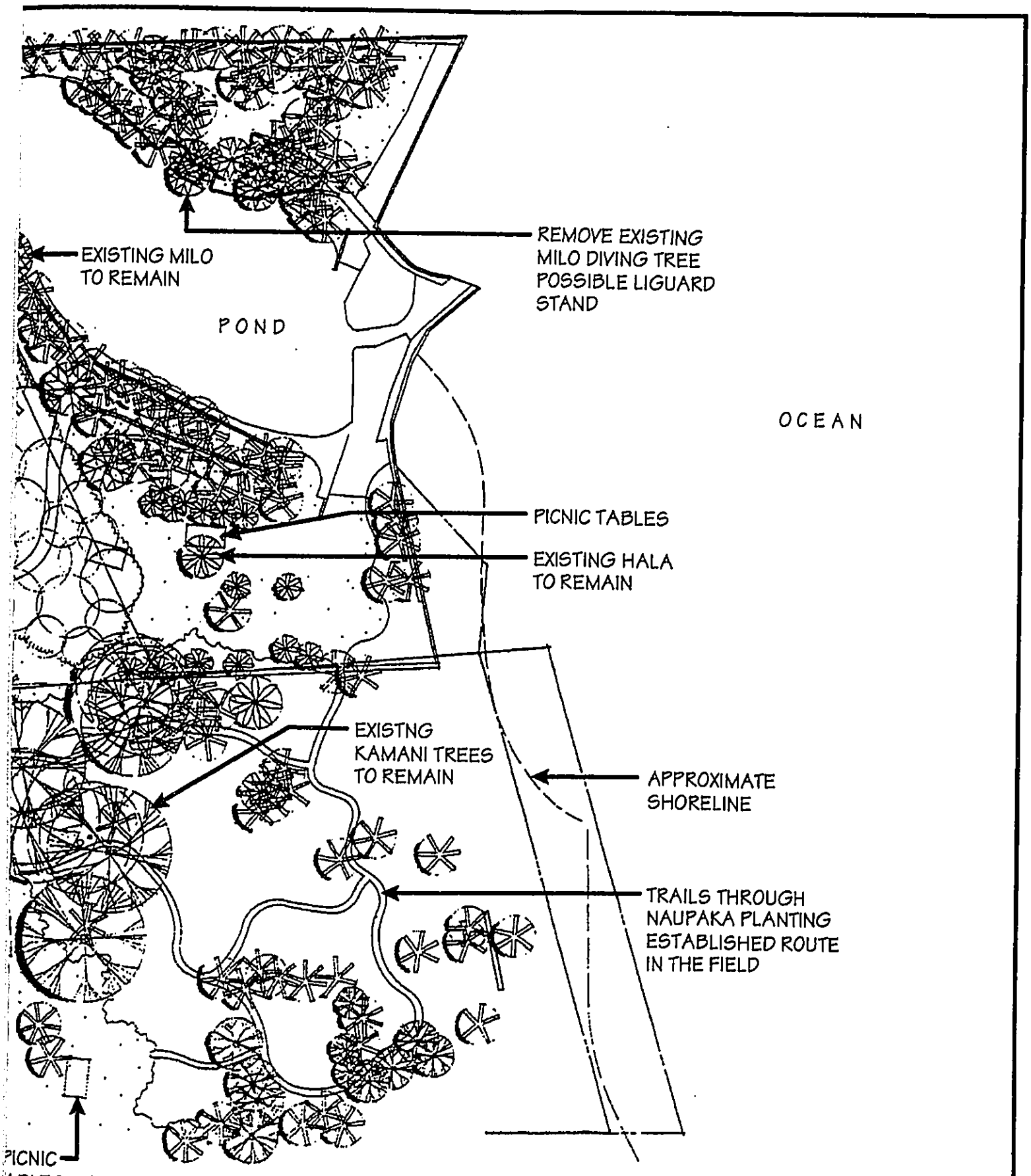
Implementation of the Proposed Action would make a unique swimming pond available to the public, create a meeting place for the community, and add utilities and other necessary public facilities. The park would provide opportunities for the following activities: pond swimming, picnicking, sightseeing, wildlife watching, sunbathing, shore fishing, and community meetings. Construction of the park would begin in the middle of 1998 and is expected to be finished by 2001. The total cost of the proposed action is $1.5 million, which is shared between FEMA (75 percent) and the county (25 percent). Exhibit 2-1 contains a site plan of the proposed park.

2.4 SUMMARY OF ENVIRONMENTAL IMPACTS

The potential impacts of implementing either alternative were evaluated for all NEPA compliance issues and resources. For those resources identified as having the potential to be impacted or requiring agency coordination, a description of the existing environment and a detailed evaluation of anticipated environmental consequences associated with each alternative are provided in Chapter 3. Table 2-1 summarizes the potential impacts associated with each of the two alternatives evaluated in this EA, including brief descriptions of resources and issues not discussed in Chapter 3.



SOURCE:
David Y. Tamura Associates, Inc. ASLA, Schematic Landscape Plan, July 16, 1996.



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PROJ	Ahalanui Park EA			
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TITLE **SITE PLAN OF AHALANUI PARK**

PaRR — A Joint Venture of Dames & Moore and Woodward-Clyde
Partnership for Response and Recovery

PROJ NO R953314

EXHIBIT **2-1**

TABLE 2-1

IMPACT SUMMARY MATRIX

Description	No Action Alternative	Development of Ahalanui Park (Proposed Action)
A. Description of Alternative		
	Ahalanui Park would not be developed for park use. Beach users would continue to use existing undeveloped shoreline areas.	The county would acquire 6 acres and develop the property into a beachfront park, as shown in Exhibit 2-1. Facilities would include a pond, parking, restrooms, a community center, trails, and picnic areas.
B. Potential Impacts		
Soils	Adverse impact: soil loss from parking on unpaved shoulders.	Beneficial impact: decreased soil loss from widened Kaimu-Kapoho Road.
Geology	Adverse Impact: Continued use of steep trail and potential collapse of undercut cliffside.	Negligible impact: minimal cut and fill required; new structures to conform with the Uniform Building Code.
Water Resources	Adverse impact: continued contamination from human waste at existing beaches.	Negligible impact: continue maintenance of pond water quality; new structures to conform with National Flood Insurance Program.
Plant Communities and Wildlife	Adverse impact: marine life potentially harmed by human waste.	Negligible impact: displacement of alien wildlife; removal of unprotected plants.
Threatened and Endangered Species	Adverse impact: potential continued contamination of protected shrimp habitat.	No impact: no threatened or endangered species known to exist on the site; mitigation measures to protect transient species.
Wetlands	Adverse impact: continued contamination of potential jurisdictional wetland.	No impact: no wetlands on the site.

TABLE 2-1 (continued)

IMPACT SUMMARY MATRIX

Description	No Action Alternative	Development of Ahalanui Park (Proposed Action)
B. Potential Impacts (continued)		
Land Use and Zoning	No impact.	No impact: proposed land uses conform with state and county zoning; mitigation through securing necessary permits.
Socioeconomics and Environmental Justice	Adverse impact: Lower Puna residents continued lack of coastal recreational opportunities.	Beneficial impact: improved coastal recreational opportunities in Lower Puna; safe construction practices to avoid impacts to minority populations.
Cultural Resources	No impact.	No impact: implementation of archaeological report recommendations and preservation of existing site "as is."
Infrastructure	Adverse impact: substandard segment of Kaimu-Kapoho Road to access park.	Beneficial impact: widening and improving Kaimu-Kapoho Road.
Air Quality and Climate	No impact.	Temporary impact: construction equipment emissions; airborne soil (fugitive dust).
Hazardous Materials and Wastes	No impact.	Negligible impact: proper disposal of hazardous materials used during construction
Noise	No impact.	Temporary impact: construction.
Visual Resources	No impact.	Beneficial impact: more permanent and established appearance from restrooms, trails, and walkways; paths create viewpoints for some park users otherwise unable to visit the park.

SECTIONTHREE Affected Environment and Environmental Consequences

3.1 PHYSICAL ENVIRONMENT

3.1.1 Soils

Affected Environment

According to the Soil Conservation Service (SCS), soils in the areas of the proposed site, the existing beaches at Kehena, Kapoho, and Pohoiki, and the proposed Kaimu-Kapoho Road improvements (hereafter referred to as the "project area") are part of the Lava Flows Association and the Kekake-Keei-Kiloa Association. Lava Flows Association is characterized by excessively drained, nearly barren lava flows and well- to excessively-drained, medium- to coarse-textured soils formed in volcanic ash, pumice, and cinders. The Kekake-Keei-Kiloa Association consists of very shallow, well-drained organic soils formed over pahoehoe or `a`a lava. The proposed site and Isaac Hale Beach Park are underlain by Opihikao extremely rocky muck. Soils underlying the Kehena Beach include Malama extremely stony muck, Opihikao extremely rocky muck, and `a`a lava. Soils lying beneath the Kapoho area include `a`a lava flows and pahoehoe lava flows. The soils underlying the proposed road improvements include (from north to south) `a`a lava, Malama extremely stony muck, and Opihikao extremely rocky muck (SCS, 1973).

Malama extremely stony muck and Opihikao extremely rocky muck are well-drained, thin, organic soils formed over lava flows. Malama soils are underlain by fragmental `a`a lava, and Opihikao soils are underlain by pahoehoe lava bedrock. Lava is typically found beneath both soil types at depths of 3 inches, though depths can range from as little as 2 inches to as much as 5 inches for Opihikao soils and 8 inches for Malama soils. Both soils have rapid permeability, slow runoff, and slight erosion hazard (SCS, 1973). The rock beneath these soils may or may not be permeable depending on the location of cracks; brief and localized ponding can occur after heavy rains (DPR, 1993).

Malama extremely stony muck is considered a statewide important soil. In every state, certain soils are designated prime, unique, or important due to characteristics such as pH, water capacity, temperature, depth, erodability, slope, permeability, or floodability. Under the Farmland Protection Policy Act (FPPA), Federal agencies funding projects that involve prime, unique, or important farmlands must evaluate the proposed project for impacts to farmlands and coordinate their findings with the Natural Resources Conservation Service (NRCS). None of the other soil types are considered prime, unique, or important.

Environmental Consequences

Under the no action alternative, Ahalanui Park users would likely continue to park their vehicles and drive on the unpaved shoulders of Kaimu-Kapoho Road. Both vehicles and pedestrians would cause slight soil displacement by using the road's shoulders to reach the park. In addition, soil erosion would continue at Kehena Beach where beach visitors must hike down a steep cliff to reach the shore.

Soil displacement would result from implementing the proposed action but would be limited to those areas where development would occur, such as the proposed locations of restrooms, the parking lot, trails, picnic shelters, and removed trees. Best management practices (BMPs), such as covering spoil piles and erecting silt fences, would be employed to minimize erosion. After development of the proposed park is complete, equipment staging areas and other disturbed sections would be revegetated and maintained as mowed lawn. Furthermore, widening the segment of Kaimu-Kapoho Road would reduce soil displacement from cars driving on unpaved shoulders to pass. Therefore, implementation of the proposed action would likely result in less soil loss than would occur under the no action alternative.

No farmlands would be directly or indirectly converted to non-agricultural use under either alternative. Therefore, there is no requirement for FPPA compliance.

3.1.2 Geology

Affected Environment

Geomorphology and Topography

The Island of Hawaii is of volcanic origin. The subject property and Isaac Hale Beach Park are underlain by pahoehoe lava. The existing beaches at Kapoho and Kehena, and the location of the proposed road improvements are underlain by both pahoehoe and `a`a lava (SCS, 1973). Both lava types range in age from 450 to 700 years old (DPR, 1993). The geomorphology of the land is a result of lava flow and weathering of the rock since its emplacement. The relative youth of the landscape is indicated by the lack of stream channels in the project area.

The elevation of the subject property is between 0 and approximately 10 feet above mean sea level (msl). The slope at the subject property is approximately 2 percent. The segment of Kaimu-Kapoho Road is between approximately 10 and 20 feet above msl. Both Kapoho beaches and Isaac Hale Beach Park are between sea level and less than 20 feet above msl. Slopes at these beaches are less than 5 percent. The beach at Kehena is at sea level; however the cliff where visitors must park and descend a trail is at approximately 40 feet above msl. The average relief of this descent is 20 percent.

Geologic Hazards

The proposed site is approximately 2 miles makai of the East Rift Zone of Kilauea. Kilauea is one of the most active volcanoes in the world, and the east rift has been the most active area on Kilauea over the last 30 years. The U.S. Geological Survey (USGS) Lava-Flow Hazard Map (Wright et al., 1992) depicts the project area as Lava-Flow Hazard Zone 2 on a scale of increasing hazard from 9 to 1. Lava-Flow Hazard Zone 2 is adjacent to and down slope of Zone 1 (summits and rift zones of active volcanoes). The area can be expected to be covered by lava at anytime over the next several hundred years according to Donald Swanson of the USGS Hawaii Volcano Observatory (Swanson, 1997a; Appendix B).

Recent and current eruption of Kilauea is from the Pu`u `O`o cone. As of October 2, 1997, lava flows extended approximately 7 miles makai of the vent and in an area approximately 19 miles southwest of the subject property. The lava flow of 1955 came within 4000 feet of the proposed site, and the 1790 lava flow penetrated to within 2000 feet of the proposed site (DPR, 1993).

Isaac Hale Beach Park is approximately 2 miles makai of the east rift. The lava flow of 1955 came within 1.5 miles of this park The segment of Kaimu-Kapoho Road proposed for improvement and the existing beaches at Kapoho are as close as 1 mile makai of Kilauea's east rift. Both of these areas were within approximately 2000 feet of the 1955 lava flow. The existing beach at Kehena is approximately 3 miles makai of the east rift; however this site is within 200 feet of the 1955 lava flow.

Earthquakes on Big Island are commonly associated with the movement of molten rock within the earth as it makes its way to the surface. Few of these tremors are strong enough to be felt at the surface. Major earthquakes are usually the result of movement along faults. Over the past 70 years, seven earthquakes with magnitude greater than 5.3 originated on Hawaii, and four originated from faults beneath the ocean. A magnitude 7.2 earthquake on November 29, 1975, was centered about 15 miles off the Puna coast and was the largest in 100 years (University of Hawaii, 1983). The entire Island of Hawaii is designated as Seismic Zone 4 by the Uniform Building Code (UBC), its highest seismic hazard zone. The Seismic Probability Rating, though, places the Island of Hawaii in Zone 3 on a scale of ascending risk from 1 to 4 (DPR, 1993).

Most tsunamis (huge water waves) that affect Hawaii are generated by earthquakes from fault movements along the Pacific Rim in places such as the Aleutian Islands and South America. A tsunami from the Aleutians in 1946 washed over Hilo at 33 feet above sea level and killed 83 people. Movements along a nearby fault during an earthquake in 1868 caused a tsunami that is reported to have overtopped coconut trees on Big Island's south shore. Nine tsunamis have caused damage or death on the Hawaiian Islands since 1820; two of these originated locally (University of Hawaii, 1983). The 1975 earthquake caused a tsunami that inundated the coastline in the project area to a depth of about 8 feet (Swanson, 1997a; Appendix B). All of the existing beaches and the proposed site are on the Puna coast and have essentially the same probability of tsunami coming ashore. The segment of Kaimu-Kapoho Road proposed for improvements is between 500 and 1500 feet off shore and is therefore less likely to be affected by tsunami. Tsunami warning is currently provided by an emergency siren. The siren is located at Isaac Hale Beach Park but can be clearly heard in Ahalanui Park.

Subsidence or ground sinking occurs on the Island of Hawaii in several ways. The entire island is slowly sinking due to its own weight on the oceanic crust. This regional subsidence was measured at Hilo at a rate of approximately 0.14 inches per year. At the same time, the Kapoho area is subject to a greater localized subsidence rate of about 0.67 inches per year (Swanson, 1997a; Appendix B). Sudden, catastrophic subsidence occurred along 35 miles of Puna shoreline, including the project area, during the 1975 earthquake. Some areas sank more than 6 feet in a matter of seconds, and two people were killed. However, the area around the proposed site likely sank less than 14 inches in association with the earthquake (Swanson, 1997a; Appendix B). The USGS estimates that the project area is sinking at a rate of 0.79 inches per

year (3.3 feet in 50 years)—approximately 6 times greater than the regional subsidence rate (Swanson, 1997a; Appendix B).

Kehena Beach consists of an undeveloped, narrow beach at the foot of a steep cliff. Beach users must park their vehicles on the cliff and hike down a steep trail. The trail runs along a portion of the cliff that is severely undercut and poses the potential hazard of collapse. None of the other alternative sites contain cliffs; as such, they are not subject to these hazards.

Environmental Consequences

Geomorphology and Topography

Grading would be necessary for the proposed action. Leveling of the ground surface for the restrooms, trails, picnic shelters, and portions of Kaimu-Kapoho Road would be necessary. The parking lot would be primarily constructed at natural grade to facilitate drainage. No impacts would occur to topography or geomorphology as a result of the no action alternative.

Geologic Hazards

Based upon the local geology and the volcano's recent history of eruption, the risk to users of any beaches in the project area from lava flow would be minimal. Lava flows from Kilauea have not been explosive except, on occasion, at their point of origin at the summit and in the rift zone. If a future eruption were similar to those of recent history, then the distances between the rift zone and either the existing beaches or the proposed site would allow for several days warning of lava flow and evacuation of the area (Swanson, 1997b). Beach users in the project area could be evacuated via Kaimu-Kapoho Road to Pahoa-Kapoho Road (Highway 132), Pahoa-Pohoiki Road, or Pahoa-Kaimu Road (Highway 130) in the direction of Pahoa. It is unlikely that an eruption would simultaneously block all of these roads.

To reduce the risk of casualties and damages from earthquake, all structures in the proposed park would be built to the current UBC seismic safety design standards. No structures would be built under the no action alternative, and therefore there would be no impacts from earthquakes.

The National Oceanic and Atmospheric Administration National Weather Service operates the Pacific Tsunami Warning Center and Alaska Tsunami Warning Center and monitors sudden earth movements throughout the Pacific Basin. Warnings are broadcast by the news media on radio and television. A tsunami from earth movements in South America would allow for as much as 15 hours warning time; events in the Aleutian Islands would allow 4.5 hours. In either case, sufficient time would exist for evacuation of the proposed park. Beach users under the no action alternative would be less likely to receive warning since those beaches do not have lifeguards stationed on the beach. Ahalanui Park, under the proposed action, would have a lifeguard at the pond. Sudden movement along faults close to Hawaii are unpredictable, would allow for only minutes of warning time, and evacuation would be very unlikely. Complete avoidance of the tsunami hazard along the Puna coast is not possible because all of it is vulnerable to tsunami. Under all alternatives, the emergency warning siren at Isaac Hale Beach Park would remain at its current location.

The entire project area is on the Puna coast. The entire Puna coast is susceptible to unpredictable subsidence; therefore, reduction of subsidence risk is not likely.

Under the no action alternative, beach users would continue to use the steep trail to access Kehena Beach from Kaimu-Kapoho Road. The steep trail and the potential collapse of the undercut cliffside would remain as hazards.

3.1.3 Water Resources

Affected Environment

Groundwater

Groundwater is the primary source of water on Big Island, and the basaltic water table is the most dependable groundwater source for both public and private users (County of Hawaii Department of Water Supply, 1991). The basaltic water table forms from rain water percolating through the ground and settling in a lens-shaped reservoir at approximately mean sea level. Because the specific gravities (densities) of fresh water and salt water are different, the freshwater floats on the sea water and, over time, pushes the sea water downwards—in some cases to depths of 1000 feet below mean sea level. Most water from basaltic aquifers is very high quality; however, chloride concentrations can be high where the sea water encroaches on the basaltic aquifer (University of Hawaii, 1983). Water from the basaltic aquifer east of Kilauea moves towards the ocean at a rate of approximately 40 feet per day (County of Hawaii Department of Planning, 1992).

The basaltic aquifer under Kilauea's east rift is one of the largest on the island, and with the exception of farm catchment systems, deep groundwater wells are Puna's only water source. With the exception of the existing Kapoho beaches, the project area is located in the Kalapana Aquifer System (80802) of the Kilauea Aquifer Sector (808). The only groundwater sources in this system are wells in Keauohana. No domestic, commercial, industrial, or other system draws groundwater from the Kalapana Aquifer Sector. The Kapoho area is located in the Pahoa Aquifer System (80801) of the Kilauea Aquifer Sector. Groundwater sources in this system include wells in Pahoa, Keonopoko Nui, and Kapoho. Four private wells draw groundwater from the Keaau area and northeast of Pahoa. The most abundant supply of high quality water is in the vicinity of the current wells in the Pahoa area. Future well locations proposed by the county have been in this area (County of Hawaii Department of Water Supply, 1991). Within the project area, groundwater is expected to occur at or just above mean sea level.

Cracks and depressions in the lava intersect basal groundwater escaping to sea and form numerous water-filled cracks and ponds. Some of this water has been geothermally heated. Because this water exists in various states of mixing with seawater, other groundwater, and rainwater, these water bodies exhibit great spatial and temporal variability in temperature and salinity.

Surface Water

Because of volcanic activity, Puna's entire 60 miles of shoreline is in a state of transformation: lava flows extend the shoreline and subsidence submerges portions of land. The most recent evidence of this activity was the destruction of the three county parks in the Kalapana area. Most of Puna's coast is seacliff, and many areas have high elevations and near vertical slopes. Few sandy beaches exist, and the district has only one boat ramp—at Isaac Hale Beach Park (County of Hawaii Department of Planning, 1992).

No streams, perennial or intermittent, exist in the project area. The only surface waters in the project area include the ocean and the warm-spring pond at the proposed site. The pond was originally a natural depression in the lava that filled with brackish warm water. Local informants remember it as Maunakea Pond, named after a local family. Long used for swimming purposes, it was enlarged in the 1950s by the Hayes family. After alteration, the pond became a kidney-shaped pool of approximately 0.5 acre, with a maximum depth of 6 to 7 feet at null tide. Perhaps in order to raise the pond's temperature, the property owner separated it from the ocean by constructing an artificial cement weir that allows limited passage of tidal and wave-fed water in and out of the pond. On its mauka end, the pond is fed by a thermal spring. A culvert connects it to a natural, brackish pond on the adjacent property to the north (DPR, 1993).

Mr. Hayes was a manager at a local sugar plantation, and the pond was a welcome feature at his private parties and, periodically, at gatherings of plantation employees and *kumiai* (community) groups. Local informants say that Mr. Hayes used to clean the pond often during this period. In addition, every 5 years he would use a small dragline to excavate any excess organic mud. The last 20 years have seen less use of the pond, and less maintenance as well. In 1990 the owners accomplished a major cleanup, taking out the accumulated organic litter and trimming the surrounding milo trees in order to reduce future fouling of the pond (DPR, 1993).

In 1992, DPR funded a study of the physical properties and water quality of the pond. The study analyzed flow patterns, temperature, salinity, and bacterial presence, and its findings are summarized below (DPR, 1993).

The pond has a somewhat complex structure. Flow in the pond responds to both groundwater input and tidal fluctuations. On a test conducted October 14, 1992, flow rates of up to 12,500 cubic meters per hour were recorded as the pond emptied into the ocean during ebb tide. Temperatures varied from 90 to 97 degrees Fahrenheit (°F), as compared to 75 to 83°F for the adjacent ocean surface. Salinity varied from 8 to 23.5 parts per thousand, with values tending to be lowest near the surface and near the brackish pond (DPR, 1993).

Water quality sampling between May and August 1992 revealed high densities of fecal coliform (FC) and enterococci (EC) at a number of locations within the pond. Testing indicated that the property's cesspool and brackish pond were major contributing factors (DPR, 1993).

Subsequent to conducting the studies, the pond was cleaned out and the cesspool was closed and disinfected. Water samples tested by both DPR and the State of Hawaii Department of Health (DOH) indicated that the level of sewage pollution was low and probably not a risk to public health. It was decided to conduct a 30-day study to determine if the water quality of the thermal

swimming pond met standards for nearshore recreational waters as determined by the State DOH Administrative Rules under Title 11, Chapter 54, Water Quality Standards (DPR, 1993). The bacterial results are presented in Table 3-1.

In terms of FC, the pond met and even exceeded DOH water quality standards for inland recreational waters. However, the values for EC found almost everywhere in the pond exceeded recommended levels. DOH suggested that bird droppings may be responsible for all or part of the high EC readings. There may also be a correlation between high rainfall events and abnormally high EC counts (DPR, 1993). Maintenance of the pond has continued to present, and discussions with DOH officials confirm that current readings are lower than the 1992 data.

TABLE 3-1:

BACTERIA COUNTS AT AHALANUI PARK

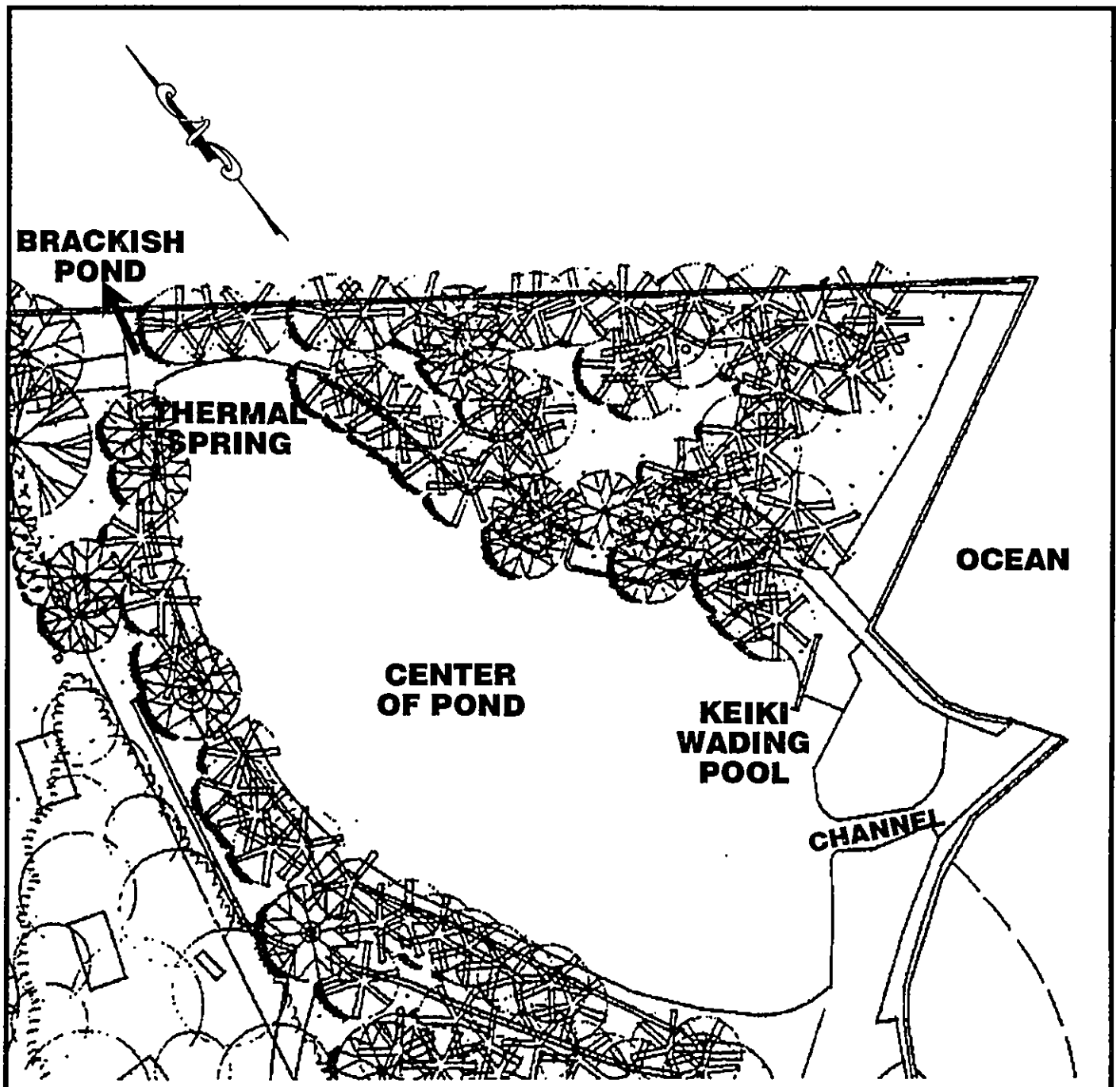
Site	FC per 100 ml	EC per 100 ml
Center of Pond	23	13
Channel	14	8
Keiki Wading Pool	8	6
Brackish Pond	38	82
Thermal Spring	18	20
Ocean	2	7
DOH Maximum Standard	200	7

Note: Exhibit 3-1 shows site locations. Values are geometric means of samples taken between September 14, 1992, and October 14, 1992. DOH maximum standards for FC is based on geometric mean of ten or more samples collected in a 30-day period. For EC, DOH maximum standard is based on at least five samples equally spaced over a 30-day period.
Source: DPR, 1993

Table 3-2 shows bacterial data taken from the ocean at several of the existing beaches. No samples are collected at Kehena Beach. As discussed in Section 2.2, county officials have expressed concern of localized water quality at all three of the existing beaches due to lack of proper or sufficient restrooms (County of Hawaii, 1992).

Floodplains

Most of the proposed site is located in Zone VE, which represents the 100-year coastal, high hazard floodplain, incorporating storm surges. The remainder of the proposed site is located in Zone AE, which represents the 100-year floodplain. The 100-year floodplain designates the area subject to inundation from a flood having a 1 percent chance of occurring in any given year. This flood is referred to as the "100-year flood" or "base flood" and may occur more or less often than once every 100 years. Exhibit 3-2 shows the boundaries of the 100-year floodplain relative to the proposed site. The base flood elevation (BFE), between 17 and 20 feet at the proposed site, is the estimated elevation of the 100-year flood based on the National Geodetic Vertical



CLIENT	FEMA			
PROJ	Ahalanui Park			
REVISION NO		DES BY		
SCALE	NOT TO SCALE	DR BY	LAL	9-12-97
FILE	DRAWINGS\R953314\BACTERIA.PPT	CHK BY	MG	9-12-97

TITLE: LOCATIONS OF BACTERIA COUNT SAMPLING

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PROJ NO R953314

EXHIBIT 3-1

Datum of 1929 (NGVD). Most of the segment of Kaimu-Kapoho Road proposed for improvements is also within Zones VE and AE, with BFEs between 16 and 18 feet NGVD.

TABLE 3-2:

BACTERIA COUNTS AT BEACHES

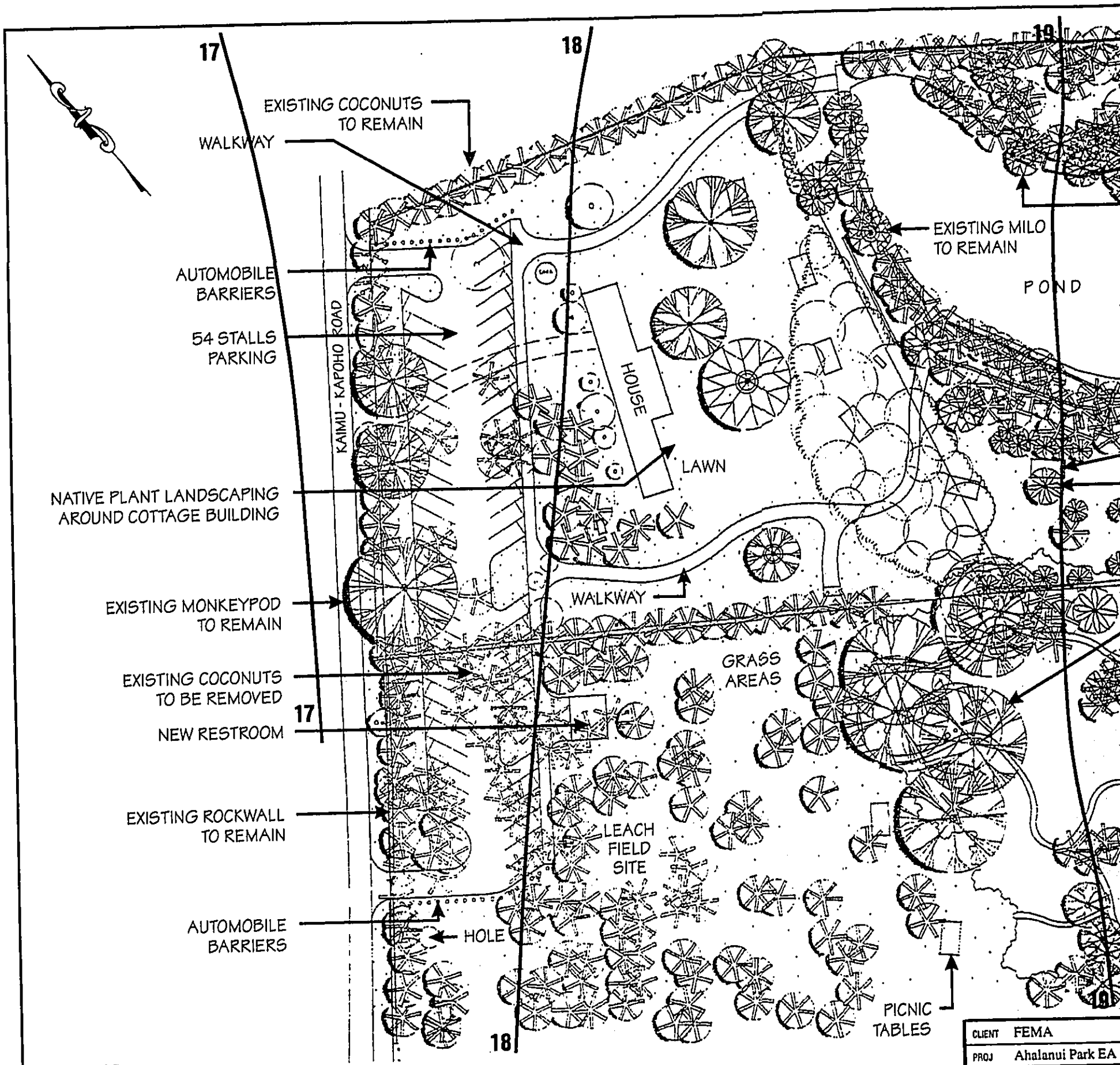
Site	Clostridium Perferingens per 100 ml	EC per 100 ml
Isaac Hale Beach Park	1.3	3.3
Vacationland Subdivision (Kapoho)	1.0 *	1.7
Kapoho Beach Subdivision	1.0 *	4.1
Ahalanui Park	1.5	5.3

Note: Samples were tested for Clostridium Perferingens because it is a more reliable indicator of contamination in salt water than FC (Furukado, 1998). Values are geometric means of samples taken between January 1996 and May 1997 except * which were taken between July 1996 and May 1997.
Source: Furukado, 1997

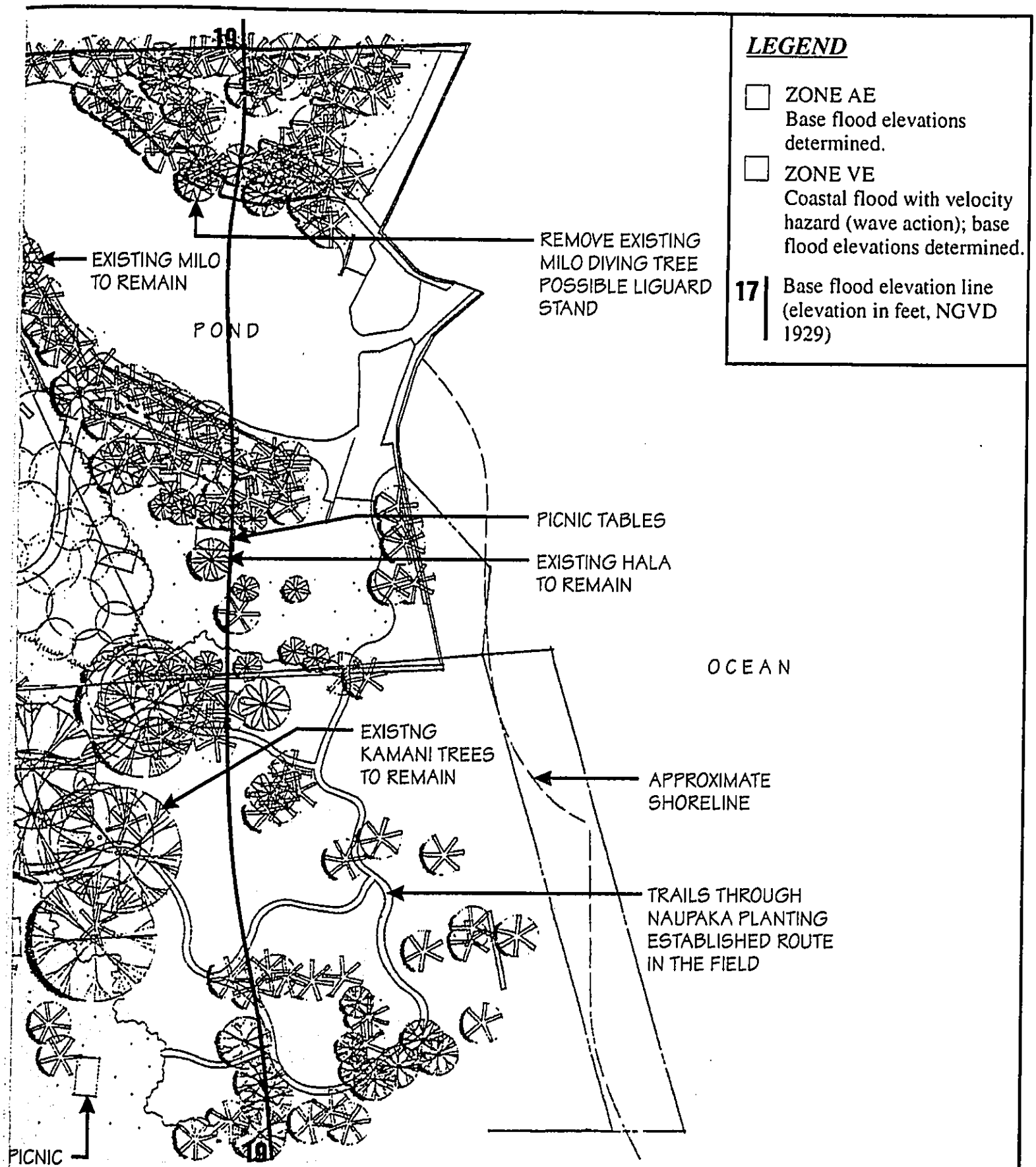
Because of their coastal locations, portions of the existing beaches are also located in the floodplain. Isaac Hale Beach Park is located entirely within Zone VE with a BFE of 20 feet NGVD. Most beachfront areas of Kapoho are also within Zone VE. BFEs of Kapoho beaches are 16 and 17 feet NGVD. The beach at Kehena is not mapped in the floodplain but is described as an area of minimal tsunami inundation.

As with all locations in the Hawaiian Islands, Puna seldom experiences the full impact of a hurricane. Hurricanes directly hit land in the Hawaiian Islands infrequently—less than once every 20 years—and hurricanes are thus seldom accounted for in local building design. However, hurricanes on their way across the tropical eastern North Pacific periodically graze the Hawaiian Islands, causing high surf on southern and eastern shores. Several times during the last 10 years, notably in August of 1982 and August of 1988, hurricane waves have battered the Puna coast, causing destruction to vegetation and property. On occasion the pond on the subject property suffered minor storm damage, most recently in November 1990 (DPR, 1993).

The NEPA compliance process requires Federal agencies to consider direct and indirect impacts to floodplains which may result from Federally funded actions. Executive Order (EO) 11988 requires Federal agencies to take action to minimize occupancy and modification of floodplains. Furthermore, EO 11988 requires that Federal agencies proposing to site a project in the 100-year floodplain must consider alternatives to avoid adverse effects and incompatible development in the floodplain. If no practicable alternatives exist, the project must be designed to minimize potential harm to or within the floodplain and a notice must be publicly circulated explaining the project and reasons for the project being sited in the floodplain. Furthermore, construction must



SOURCES:
Base map adapted from David Y. Tamura Associates, Inc. ASLA. Schematic Landscape Plan, July 16, 1996.
Flood data from NFIP Flood Insurance Rate Map, Hawaii County, Hawaii, September 16, 1988.



CLIENT	FEMA			
PROJ	Ahalanui Park EA			
REVISION NO		DES BY		
SCALE	NOT TO SCALE	DR BY	LAL	9-8-97
FILE	GTB1\DRAWINGS\R953314\AHA-FLUD.CDR	CHK BY	MG	9-8-97

TITLE **FLOODPLAIN BOUNDARIES AT AHALANUI PARK**

PaRR — A Joint Venture of Dames & Moore and Woodward-Clyde
Partnership for Response and Recovery

PROJ NO R953314
EXHIBIT 3-2

be consistent with the standards, criteria, and intent of the National Flood Insurance Program (NFIP) and its implementing regulations (44 CFR 59 through 77).

Environmental Consequences

Groundwater

Under both alternatives, pollutants from human waste have the potential to reach groundwater. Lawn maintenance practices on the subject property would not include the application of artificial fertilizers, insecticides, or herbicides under either alternative, and therefore, would not impact groundwater under either alternative. Although the exact depth to groundwater is not known at the proposed site or existing beaches, the proximity to the sea and general groundwater flow patterns suggest that contaminated groundwater would flow to the ocean before contaminating basaltic water aquifers used for potable water. Nonetheless, subsurface investigations and computer modeling would be required to more accurately determine potential impacts to basaltic water aquifers.

Surface Water

Due to cleaning and water circulation improvements already made by the county, water quality in the pond appears to be sufficiently close to DOH standards to expect that the pond could serve as a safe and healthy public swimming facility. However, heavy use of the facilities could tend to degrade water quality to unhealthy levels. Systematic monitoring would warn of this condition and allow temporary closure, at the cost of diminished public use (DPR, 1993).

To maintain safe and healthy water quality in the pond, the county would continue to implement the following mitigation measures as recommended by DOH: trimming of trees overhanging the pond, implementation of a systematic program of repeated and regular water quality sampling, and investigation of the correlation between high rainfall and EC levels, if warranted (DPR, 1993).

Under the no action alternative, park visitors would continue to swim in the warm-spring pond; however none of the safety measures described above would be implemented. Therefore, implementation of the proposed action would likely decrease the bacteria in the pond compared to the scenario under the no action alternative.

Under the no action alternative, Kapoho and Kehena would continue to be used as recreational destinations, even though no restrooms are available, and the portable toilets at Isaac Hale Beach Park are inadequate for the park's volume. Surface runoff is likely to carry fecal coliform, enterococci, and other pathogens from human wastes that are not properly collected and treated into the ocean. This is most likely at Kapoho which has little or no soil covering `a`a and pahoehoe lava. Ocean waters near Kapoho have already been identified as having high levels of FC and EC (County of Hawaii, 1992). The proximity to the ocean and slow permeability of the lava beneath soils at other beaches suggest that untreated human wastes at Isaac Hale Beach Park and Kehena would also impact coastal waters through surface runoff. Therefore, maintaining the

status quo could create health risks at these three areas due to beach visitors not having access to sanitary facilities (County of Hawaii, 1992).

As discussed in Section 3.1.1, soil loss would continue to occur from park users parking on Kaimu-Kapoho Road. The topography of the area, its proximity to the ocean, and the volume of rain on the Hawaii's east coast suggest that a proportion of eroded soils and affiliated contaminants (such as motor oil and antifreeze) would reach coastal waters makai of Kaimu-Kapoho Road and the warm-spring pond.

As discussed in Section 3.1.1, implementation of BMPs, revegetation, and road improvements occurring as part of the proposed action would result in less soil loss, and hence less sedimentation in surface waters, than would occur under the no action alternative.

The proposed action would increase the amount of impervious surfaces on the subject property through construction of a parking lot, restrooms, trails, and picnic shelters. The parking lot would be made of asphalt except for a portion which may be graveled to support existing palm trees. At a maximum, approximately 0.7 acres of the proposed site would be transformed from maintained lawn to impervious surface. This land use change would increase surface runoff by approximately 100 percent for these areas (County of Hawaii Department of Planning, 1992). Therefore, this land use change would increase surface runoff by a maximum of approximately 10 percent on the subject property. Current plans include using a dry well to collect surface runoff, as well as constructing the parking lot with a slight slope so that excess stormwater flows to grassy areas on-site. Widening the proposed segment of Kaimu-Kapoho Road would increase impervious surfaces by an additional 0.7 acres.

Lawn maintenance practices on the subject property would not include the application of artificial fertilizers, insecticides, or herbicides under either alternative, and therefore, would not impact surface water under either alternative.

The proposed action includes placement of a composting toilet system (for human waste) and leach field (for graywater) on the proposed site. The composting toilet and leach field would be designed by a registered professional engineer and permitted by DOH. The design, construction, and maintenance of these systems would meet all appropriate DOH regulations. In particular, the system would meet the requirements of an Individual Wastewater Disposal System. The design of these systems would ensure that neither the composting toilet nor the leach field discharges to U.S. or state waters. Mitigation measures to ensure proper maintenance and care of the facility would include the following:

- Installation and maintenance of an exhaust fan to ensure proper ventilation
- Specialized training for maintenance workers and discussions with park caretakers regarding proper care
- Posting signs that prohibit cigarettes and other fire sources from entering the facility
- Securing the back maintenance area from vandalism

Floodplains

There are no permanent structures located in the floodplain at the existing beaches. Therefore, maintaining the status quo would have no affect on the BFE or the size of the floodplain. Since there is no Federal action under this alternative, there is no requirement for compliance with EO 11988.

As shown in Exhibit 3-2, implementation of the proposed action would site public restrooms, a parking lot, picnic shelters, walkways, and trails within the 100-year floodplain. The restroom building would be considered a regulated "structure" under the NFIP, and construction of this structure and public notification of decisions regarding its construction would therefore comply with EO 11988 and the NFIP and its implementing regulations. In particular, either (1) the lowest floor of the restroom building would be elevated to or above the BFE or (2) the building would be designed so that all portions of the structure below the BFE are watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy.

Because the flooding is coastal in nature, siting this structure in the 100-year floodplain would have a negligible impact on the BFE and the size of the floodplain.

3.2 BIOLOGICAL RESOURCES

3.2.1 Plant Communities and Wildlife

Affected Environment

The original vegetation of the proposed site can be classified as Lowland/Coastal Wet Forest, but the region has been extensively modified by Hawaiian cultivation and the spread of alien plants introduced since Western contact. A small fringe along the coastline contains some native species including sedges (Fimbristylis cymosa), naupaka kahakai (Scaevola sericea), hala (Pandanus tectorius), beach morning glory (Ipomoea pes-caprae), heliconia (Heliconia spp.), and ʻakulikuli (Sesuvium portulacastrum). Most of the property, however, consists of lawns containing alien grasses, ferns, and weeds, dotted with ornamental shrubs and trees, including milo (Thespesia populnea), kamani (Calophyllum inophyllum), Norfolk Island pine (Araucaria heterophylla), ti (Cordyline fruticosa), coconut (Cocos nucifera), dragon tree (Dracaena sp.), bird-of-paradise (Strelitzia reginae), plumeria (Plumeria acuminata), breadfruit (Artocarpus altilis), wai'awi (Psidium cattleianum), and bougainvillea (Bougainvillea spectabilis) among others (DPR, 1993).

Native fauna in such disturbed lowland habitats is generally not abundant. No native passerine bird species are known to frequent the area (DPR, 1993). The native Hawaiian owl or pueo (Asio flammeus sandwichensis) has been identified in the area of the proposed site, but no nests have been found (Griffin, 1997; Appendix B). Indigenous and migratory seabirds such as the Pacific golden plover or kolea (Pluvialis fulva) also typically rest or forage on grassy areas, of which there is an abundance on the subject property (DPR, 1993). Mammals likely to occur on

the proposed site include those typical of disturbed property in nonurban areas of Hawaii. It is probable that introduced feral dogs and cats and mongoose, rats, and mice utilize the subject property. Because of the amount of human activity at the park, none of these species is likely to nest at the proposed site.

The subject property contains or borders areas with diverse aquatic habitats, including brackish and thermal ponds, tidepools, and low-cliff and boulder coastlines. Organisms present include algae, coral, worms, mollusks, arthropods (e.g., crabs), echinoderms, and fishes, among others. The pond itself has a restricted biota, including snails and algae. Milkfish or awa (Chanos chanos) are frequently found in the pond, along with manini (Acanthurus triostegus), mamo (Abudefduf abdominalis), damselfish, and various Chromis fish. Eels are seen occasionally in the pond (DPR, 1993).

Environmental Consequences

Development of the subject property under the proposed action would include removing as few as 10 and as many as 30 coconut trees for the parking lot and restrooms, several milo trees for the lifeguard stand, and understory throughout the property for the parking lot, restrooms, trails, and picnic shelters. Only the milo and certain species of the understory are indigenous, and none are protected. Overall, the arrangement of the vegetation is appropriate for a park (DPR, 1993)

Mammals that nest at the subject property would be displaced by development. All are alien species that have effectively colonized the island, usually to the detriment of native species. None of these mammals are protected.

If no action were taken, surface water runoff, as described in Section 3.1.3, would continue to carry untreated human waste and pathogens into the ocean because of inadequate restroom facilities at Isaac Hale Beach Park and lack of restrooms at Kapoho and Kehena. Marine life would continue to be negatively affected by the effluent.

3.2.2 Threatened and Endangered Species

Affected Environment

No listed, candidate, or proposed threatened or endangered species were identified on the subject property (DPR, 1993). No rare or endangered plant species have been found on site, and the area is not included within critical habitat for protected species (Giffin, 1997; Appendix B). In terms of conservation value, no botanical resources requiring protection were discovered (DPR, 1993). It is unlikely that any rare plants would occur on such a heavily disturbed and human-modified site.

According to Nature Conservancy Hawaii Heritage records, anchialine pools may occur on or adjacent to the existing beaches and the proposed site (Giffin, 1997; Appendix B). Anchialine pools may contain Metabetaeus lohena, a native shrimp that is listed as a species of concern by the U.S. Fish and Wildlife Service (USFWS) (Harper, 1997; Appendix B).

The Hawaiian hawk or `io (Buteo solitarius), an endangered species, was seen near Isaac Hale Beach Park in 1967, and the Puna coastal area is part of its regular habitat (DPR, 1993; Harper, 1997; Appendix B). No hawk nests have been discovered on the proposed site (Giffin, 1997; Appendix B). The Hawaiian hawk is relatively non-selective in the type of habitat required for nesting and foraging. It utilizes exotic as well as native vegetation and is well-adapted to human altered landscapes (DPR, 1993).

The only native Hawaiian land mammal, the endangered Hawaiian hoary bat (Lasiurus cinereus semotus), has the potential to occur in the project area, as it is common in many lowland forests on the Island of Hawaii (DPR, 1993). A biologist from the State of Hawaii Division of Forestry and Wildlife (DFW) sighted a Hawaiian bat in November 1996 on the opposite side of Kaimu-Kapoho Road from the proposed site (Giffin, 1997; Appendix B). According to the USFWS (Harper, 1998; Appendix B), "there is no reason to believe that the hoary bat is roosting or routinely foraging in the project area."

The Newell's shearwater (Puffinus auricularis newelli) or `a`o, a listed threatened species, is a night-flying seabird recently detected flying across the coastline at nearby Kapoho. The Newell's shearwater fishes over the open ocean during the day and returns after dark to nest or roost on the land. Night-flying seabirds, such as the Newell's shearwater, are disoriented by bright lights, often causing them to crash into the ground, resulting in injury or death. The ground-nesting Newell's shearwater is highly vulnerable to predation by rats, mongoose, and cats. Since these predators are likely to exist at the proposed site, it is unlikely that the project area provides useful nesting sites.

Environmental Consequences

Under the no action alternative, surface runoff contaminated with human waste would continue to flow into surface waters, including possible anchialine ponds in the project area. This runoff could impact protected species inhabiting anchialine ponds. No direct impact to anchialine ponds on or adjacent to the subject property would result from the proposed action since no development would occur in the vicinity of these ponds. No impacts to protected plant species are expected from implementing the proposed action since there are no known protected plant species on the proposed site.

Mitigation measures would be implemented to protect the Hawaiian bat, Hawaiian hawk, and Newell's shearwater, the only protected wildlife species with the potential to occur at the proposed site. Because there is no evidence of these species routinely foraging or roosting at the proposed site, the proposed action is not expected to affect these protected species. USFWS has determined that a formal survey for the Hoary bat would not be necessary (Harper, 1998). However, as recommended by the DFW, a survey for roosting bats would be conducted at dusk approximately one week before any work would begin on the proposed project (Giffin, 1998). During this time, a survey would also be made for nesting Hawaiian hawks, in compliance with a USFWS request (Harper, 1998). No tree removal activities would be undertaken until it is determined from these surveys that there are no roosting bats or nesting hawks in the project area. If hawks or bats are discovered in the project area, FEMA and the County of Hawaii would

consult with USFWS and DFW to determine appropriate measures before undertaking any tree removal or other construction activities. As an extra precaution to protect Hawaiian hawks, if hawks are seen, all land-clearing activity would be halted and personnel of USFWS and DFW would be notified. To protect night-flying seabirds, such as the Newell's shearwater, all lighting associated with the proposed action would be shielded to prevent light being directed upward, in compliance with the County of Hawaii Lighting Code.

3.2.3 Wetlands

Affected Environment

The National Wetland Inventory map does not depict wetlands in the project area. The closest mapped wetland to the proposed site, existing beaches, or road segment proposed for improvement are several permanent, palustrine open-water wetlands inland of the Kapoho beaches. The vegetation, soil, and hydrological indications on the proposed site are not indicative of regulatory wetlands, except for the fringe along the coast. Small tidal wetlands could occur along the shoreline of the proposed site and the existing beaches.

Environmental Consequences

Under the no action alternative, runoff contaminated with human waste would continue to flow into tidal wetlands adjacent to Isaac Hale Beach Park, Kapoho shoreline areas, and Kehena Beach.

Except for the area immediately surrounding the warm-spring pond, no development would occur along the vegetated fringe of the coast or in any tidal ponds on the subject property.

3.3 SOCIAL AND CULTURAL RESOURCES

3.3.1 Land Use and Zoning

Affected Environment

Land use on the subject property is recreational consisting of open space with semi-natural vegetation and a coconut grove planted in the 1930s. According to the Hawaii County Department of Planning, the subject property is within the State Land Use Conservation District. The proposed site is situated within an area designated by the Hawaii County General Plan Land Use Pattern Allocation Guide Map as Orchards, with the shoreline area zoned Open. The county zoning is Agriculture, 1-acre minimum lot size (A-1a). The Hawaii County Planning Department has stated that it will defer jurisdiction over land use in the Conservation District to the State of Hawaii Department of Land and Natural Resources (DLNR) (Goldstein, 1997; Appendix B). Kaimu-Kapoho Road has a minimum 64-foot right-of-way (ROW) in the project area.

Neighboring land use is similar. Zoning and Land Use Districts for surrounding properties are agricultural and conservation. Kehena Beach and Isaac Hale Beach Park are classified in the State Land Use Conservation District and are designated as Open under county zoning. Beaches in the Kapoho area are zoned single-family residential by the county and are within the state's Urban District.

The Coastal Zone Management Act of 1972 requires that Federal agencies conducting or supporting activities which affect the coastal zone (as determined by the state) are consistent with the enforceable policies of state coastal zone management (CZM) programs. The State of Hawaii defines the coastal zone as the Special Management Area (SMA). All parcels proposed for development under the proposed action are within the SMA, and therefore subject to compliance with the state CZM program. In addition, the county's shoreline setback requirements, which do not normally permit improvements within 40 feet of the shoreline, are applicable to this property (Goldstein, 1997; Appendix B).

Environmental Consequences

Under the no action alternative, no land use changes would occur. There is no Federal action under the no action alternative and, therefore, no requirement for CZM compliance.

In general, parks are permitted land uses within these districts and zoning categories. The County of Hawaii would secure a Conservation District Use Permit from the State of Hawaii Board of Land and Natural Resources before implementing the proposed action. Since no improvements are contemplated within or near the shoreline setback zone, no application for variance from these rules would be required.

The proposed widening of Kaimu-Kapoho Road would occur within the existing ROW. Therefore, no easements or land use changes would be required as a result of improving the road.

All improvements would require SMA permits to show that the proposed action is consistent with the CZM program. Since the proposed action includes Federal funding to a local government, the County of Hawaii would be responsible for determining whether the proposed action is consistent with the state CZM program. Before FEMA funding would be granted, the county would determine whether the proposed action is consistent with the state CZM program and would receive SMA permits from the state. After reviewing detailed plans in the SMA application, the County of Hawaii Department of Planning would determine whether there is a need to prepare a certified shoreline survey of the property. If the County of Hawaii Department of Planning determines that a certified shoreline survey of the property is required, the county would prepare this survey.

3.3.2 Socioeconomics and Environmental Justice

Affected Environment

The improved park would affect and serve both island residents and visitors, but would probably see particularly heavy use from residents of lower Puna, as it does currently.

The Lower Puna area, well-populated by Hawaiians before 1800, was nearly abandoned in the 19th century. Cattle raising and agriculture dominated land use in the late 1800s. At the Pohoiki boat landing near the project site, the entrepreneur Robert Rycroft settled in 1877 and soon began a series of ventures including `awa shipping, an `ohi`a sawmill, and a coffee plantation. Despite such economic ventures, the population in Puna remained the lowest of any district on the island, reaching a nadir of 834 in 1890 (County of Hawaii, 1992). The advent of plantation sugar in Puna in about 1900 brought with it villages of immigrant laborers, and Puna's population began to slowly grow. Growth has accelerated since 1970 as a result of the creation and occupancy of tens of thousands of residential agricultural lots in substandard subdivisions. The low costs and relaxed standards have drawn thousands of residents, including retirees, commuters to Hilo, and individuals and families relying on transfer payments for income.

The 1990 U.S. Census of Population counted 20,781 inhabitants in the Puna District (U.S. Bureau of the Census, 1991). The rapid rate of growth experienced in Puna during the 1980s (76.8 percent) has slowed somewhat, but it is estimated that Puna was home to approximately 27,000 people in 1994 (H&S Publishing). The steady growth is in part attributable to the ready availability of inexpensive building lots and rental housing within reasonable proximity to Hilo, the major source of jobs and government services.

EO 12898 requires Federal agencies to make achieving environmental justice part of their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. EO 12898 also tasks Federal agencies to ensure that public notifications regarding environmental issues are concise, understandable, and readily accessible. Lower Puna residents were studied to determine if a disproportionate number (defined as greater than 50 percent) of minority or low-income persons have the potential to be affected by the alternatives.

Lower Puna displays many of the characteristics of a disadvantaged region in its census statistics, as shown in Table 3-3. The median family income in 1989 in the Pahoa-Kalapana Division (which includes the study area) was less than 60 percent of that of the County as a whole. Over 30 percent of individuals had income below the poverty level, a rate over twice as great as Hawaii County. About 25 percent of those age 25 years or over have less than a high school education, and 16 percent have a work disability, compared to 22.3 percent and 9.6 percent, respectively, for the county as a whole.

Many of Puna's problems are related to the rudimentary infrastructure of its sprawling subdivisions, which was well-suited for speculation but inadequate to serve the needs of the low and middle income families who have come to occupy the district. Other problems often cited

by Puna residents are typical of disadvantaged communities: crime, unemployment, and lack of public amenities, such as recreational facilities.

TABLE 3-3

SELECTED SOCIOECONOMIC CHARACTERISTICS

Characteristic	Hawaii Island	Pahoa-Kalapana Division
Total Population	120,317	6,745
Average Household Size	2.90	2.92
Percent Rural	39.2	58.9
Percent Caucasian	39.9	45.0
Percent Asian	37.0	27.7
Percent Pacific Islander	20.0	22.0
Percent Under 18 Years	28.7	33.4
Percent Over 65 Years	12.6	11.1
Percent With Work Disability	9.6	16.1
Percent Over 25 Years With High School Diploma	77.7	75.1
Percent Adults in Labor Force	64.2	57.3
Median Family Income	$33,186	$18,910
Percent in Poverty	14.2	32.1
Median Home Price	$113,000	$68,300
Source: U.S. Bureau of the Census		

The population of Lower Puna has certain characteristics that would suggest a greater than average demand for coastal parks. The median age for the Kalapana-to-Hawaiian Beaches area is 31.4, as compared to 34.3 for Hawaii County and 35.2 for the Hilo District. Contributing to this low median age (the lowest of all areas in the county) is the proportion of the population under 16, which is at 30.9 percent as compared to 25.9 percent for Hawaii County as a whole (U.S. Bureau of the Census, 1991).

The economic structure of the Puna District has changed greatly since the era when sugar cane plantations dominated the landscape. In 1980, 36.3 percent of the Puna population were in the labor force. Of the total, 15.4 percent were managerial, 21.6 percent were involved in technical, sales, or administrative work, 13.0 percent were in service occupations, 15.8 percent in farming, forestry, or fishing, 15.1 percent in precision production, crafts, or repair work, and 6.2 percent

were operators, fabricators, or laborers. Government workers made up 19.0 percent of the total, self-employed workers were 14.6 percent, and the remainder, 65.9 percent, were private wage and salary workers (County of Hawaii Department of Planning, 1992). Puna had and continues to have a diverse economy, even if many of the jobs are actually situated in Hilo. In contrast with former years, small businesses employ more workers than any large concerns.

In the direct project area (Pohoiki), papaya farming and fishing are the major economic activities. Between 1988 and 1997, papaya on Big Island has consistently yielded approximately $13 million annually in economic returns from about 250 farms harvesting more than 2,000 acres (County of Hawaii Department of Research and Development, various years). Fisherman based in nearby Pohoiki Boat Harbor also contribute to the local economy. In 1996, 82 commercial fishing licenses were held by fishermen using this landing—an increase of more than 30 percent since 1994. In the fiscal years 1994 to 1996, the value of the catch has consistently exceeded $1.0 million per year (DLNR, various years).

Environmental Consequences

Under the no action alternative, Lower Puna residents would continue to have a lack of recreational, coastal opportunities. Because there is no Federal action under the no action alternative, there is no requirement to comply with EO 12898.

The socioeconomic impacts from the project are basically beneficial. The primary benefit would be the enhancement of recreational opportunities for an area undersupplied with parks. Although Ahalanui Park has already relieved recreational demand by providing a swimming area, it lacks adequate parking, restrooms, and other recreational space. The proposed improvements would complement the facilities at the existing park and at the nearby Pohoiki Park. Any improvements in local parks would also increase the value of the area as a tourist site and would assist this relatively unvisited area to attract visitors and their expenditures.

As described above, the populations residing in Lower Puna were principally minority. Therefore, any impacts associated with the proposed action would likely have disproportionate effects on these minority populations. However, no significant impacts are expected to occur as a result of implementing the proposed action. Nonetheless, to mitigate potential impacts, Hawaii County would commit to the following measures to ensure that implementation of either action alternative complies with EO 12898: construction areas and other public hazards would be barricaded and properly marked, trucks traveling through the area would maintain safe and legal speeds, construction noise would be kept within legal limits for Agricultural and Open/Conservation areas, and construction sites would be watered, if necessary, to minimize fugitive emissions.

3.3.3 Cultural Resources

Affected Environment

Cultural resources comprise either archaeological sites, standing structures, landscapes, or traditional cultural properties. Under Section 106 of the National Historic Preservation Act (NHPA), Federal agencies sponsoring, permitting, or licensing an undertaking have the responsibility to consider the effect of their actions upon cultural resources either listed on or considered eligible for the National Register of Historic Places (NRHP). In addition, the agency must allow the Advisory Council on Historic Preservation to comment on these proposed impacts. Federal agencies must identify and evaluate cultural resources that may be present within a proposed area of potential effects (APE). If important cultural resources are identified within the APE, then the Federal agency must take steps to avoid, reduce, or minimize proposed impacts upon these resources. FEMA has defined the APE for this undertaking as comprising those portions of the proposed site subject to ground disturbing activities as described in Section 2.3.

On May 1, 1997, FEMA contacted the Hawaii State Historic Preservation Office (SHPO) in order to identify any available information regarding resources of concern within this APE or its vicinity, including properties recognized as either: National Historic Landmarks; individual properties listed on the NRHP; NRHP districts; or archaeological sites, standing structures, traditional cultural properties, or other resources. In addition, FEMA requested that the Hawaii SHPO provide its opinion as to the need for and level of effort associated with appropriate studies to identify the presence of cultural resources within the APE.

The Hawaii SHPO responded to FEMA's request for information on May 30, 1997. According to records maintained at the SHPO, two parcels that would comprise the proposed park (TMK 1-4-002-005 and -006) do not appear to have important historic or archaeological sites. However, TMK 1-4-002-061 has not been subject to archaeological survey and may contain some unrecorded well sites in the coconut grove (Wilson, 1997; Appendix B). The SHPO recommended that FEMA perform an archaeological survey of the property to identify the presence of cultural resources in parcel TMK 1-4-002-061. In addition, SHPO recommended that FEMA contact the Office of Hawaiian Affairs and the Hawaii Island Burial Council regarding consideration of the presence of traditional cultural properties within the proposed APE (Wilson, 1997; Appendix B).

There are no known cultural resources at Kehena or Kapoho beaches or Isaac Hale Beach Park.

Environmental Consequences

No development is proposed under the no action alternative; therefore no impacts to cultural resources are expected. Because there is no Federal undertaking under the no action alternative, there is no requirement for compliance with Section 106 of NHPA.

Improvements to TMK 1-4-002-061 under the proposed action include constructing restrooms, a parking lot, picnic shelters, and trails. FEMA sponsored a Phase I archaeological inventory

survey of TMK1-4-002-061. The survey was conducted in January 1998 to satisfy the requirements of Section 106 of the NHPA and was developed through consultation with the Hawaii SHPO. Mr. Marc Smith of the Hawaii SHPO was involved in the initial consultation to develop the scope of work for the Phase I survey. Mr. Patrick McCoy and Mr. Nathan Napoka, both of the Hawaii SHPO, were involved in the review of the draft report.

Due to concerns over the impacts to traditional cultural properties resulting from this alternative, consultation with the Office of Hawaiian Affairs and the Native Hawaiian Burial Council was also undertaken. Interviews with local residents were conducted to determine whether the proposed action would adversely affect traditional cultural properties within the APE.

The Phase I survey for this alternative identified one new archaeological site at the subject property (Devereux et al., 1998). Site 21352 is located at the proposed site of Ahalanui Park (TMK 1-4-002-061) and is described as a prehistoric or historic well.

The archaeology report recommends that provisions be taken to ensure no effect to the archaeological site. The Hawaii SHPO concurred with the report's findings and recommendations, including preparation of a historic preservation plan for the identified archaeological site to ensure its preservation "as is" (Wilson, 1998a; Appendix D). The County of Hawaii would be responsible for preparing the historic preservation plan. The Hawaii SHPO determined that, with the commitment to preserve the site "as is," the proposed action would have "no effect" on the site (Wilson, 1998b: Appendix D). The Hawaii SHPO also agreed that a good faith effort was made by FEMA to identify possible Native Hawaiian concerns (Wilson, 1998a; Appendix D).

Based upon the results of the Phase I survey of the subject property and consultation with the Office of Hawaiian Affairs and the Hawaiian Burial Council, no further archaeological work is required under this alternative. A final report detailing the Phase I survey has been completed, and the letter of concurrence from the Hawaii SHPO is included in Appendix D of this EA.

3.3.4 Infrastructure

Affected Environment

Potable Water

An 8-inch waterline passes the mauka side of the proposed site makai of Kaimu-Kapoho Road. This waterline is on the Pahoa Water System and draws water from Pahoa Well #1, Pahoa Well #2, and Keonopoko Nui (Okamoto, 1997a). The average draw from these wells was approximately 400,000 gallons per day (gpd) in 1996; the maximum draw from these wells was estimated to be 600,000 gpd (Okamoto, 1997b). The County of Hawaii's calculated daily capacity is 864,000 gallons (Okamoto, 1997c).

Water service was extended from Laepao`o, where the waterline ended just south of the proposed site, to Isaac Hale Beach Park in 1995. The extension, a 3-inch waterline, provides potable water to park users at a capacity of 50 gallons per minute (DPR, 1994). In early 1997, average water

consumption at Isaac Hale Beach Park was 1500 gpd (Pavao, 1997). Potable water is not currently supplied to either Kehena or Kapoho beach sites.

Wastewater Treatment

The proposed site currently has portable toilets. As discussed previously, there are no toilets at Kehena or Kapoho area beaches and insufficient facilities at Isaac Hale Beach Park. These conditions are thought to have contributed to localized surface water contamination and potential health hazards (County of Hawaii, 1992).

Electricity and Telephone Service

Telephone lines currently run along Kaimu-Kapoho Road as far as the proposed site (Kelii, 1997). None of the beaches in the project area currently have electrical or telephone service available. The cottage on the subject property is currently lighted by photovoltaic power.

Traffic Circulation

All of the beaches in the project area are served by Kaimu-Kapoho Road from the north and south. Kaimu-Kapoho Road borders the proposed site on its mauka side. From this location, Kaimu-Kapoho Road travels southwest to Isaac Hale Beach Park and Kehena and north to Kapoho. The road is a frequently traveled segment of a loop carrying traffic from much of Puna and Hilo to recreational and residential areas of Lower Puna (DPR, 1993). The segment of Kaimu-Kapoho Road between its intersection with Pahoa-Kapoho Road and a spot approximately 2000 feet north of the proposed site is wider and more improved than the southern section of the road, which has a single lane and narrow grass or gravel shoulders.

Parking is currently inadequate at all beaches in the project area. Currently, there is no public parking at the proposed site. Park users are forced to parallel park on narrow Kaimu-Kapoho Road or use a neighboring property across the road. Vehicles parked across the road have been subject to break-ins, and beach users must cross Kaimu-Kapoho Road, which is particularly hazardous for children. Isaac Hale Beach Park users congest roads at Pohoiki causing delays for vehicles not accessing the park. Parking at Kehena is at the top of the cliffs, not visible from the beach, and as a result, vehicles are frequently broken into or stolen at this beach as well. Access to the ocean and ponds at Kapoho is through private property and trespassing complaints by landowners are increasing.

Environmental Consequences

Potable Water

Lack of potable water at the beaches in the project area have contributed to unsanitary conditions at these areas. Such conditions would continue under the no action alternative.

Under the proposed action, a service lateral waterline would be installed from the 8-inch main on Kaimu-Kapoho Road to the restrooms and cottage. Water consumption at the proposed park is expected to be approximately equal to the volume used at Isaac Hale Beach Park. This value is

approximately 0.6 percent of the current surplus in existing capacity. Therefore no increase in capacity would be required.

Wastewater Treatment

As discussed for the no action alternative in Section 3.1.3, surface waters contaminated with human waste would continue to flow into the ocean, increasing the health hazard to beach users at Isaac Hale Beach Park, Kehena, and Kapoho.

By implementing the proposed action, a composting toilet would be designed to handle the estimated park capacity and sited appropriately. The composting toilet and leach field would be designed and built by a registered engineer to the requirements of DOH, as described in Section 3.1.3.

Electricity and Telephone Service

No changes to electricity or telephone service are planned under the no action alternative. Implementing the proposed action would increase photovoltaic power available for security lighting and at the cottage. Telephone service would be made available to the proposed site by connecting the cottage with the telephones lines on Kaimu-Kapoho Road.

Traffic Circulation

Under the no action alternative, the segment of Kaimu-Kapoho Road proposed for improvement would continue to function below standard, posing a threat to pedestrians and vehicle occupants. Parking would continue to be a problem at all of the parks in the study area, but especially at the proposed site because of the dangerous conditions of the access road and lack of parking.

Under the proposed action, approximately 2000 feet of Kaimu-Kapoho Road from the southernmost part of the fully improved section to the entrance to the park would be improved and widened. This segment would be widened to two 12-foot lanes, each with a 4-foot paved shoulder. All aspects of the improved road would comply with Federal Highway Administration standards. The impacts of these safety improvements would be improved sight distances, one travel lane in each direction, and faster travel times. The proposed parking lot would minimize the need for park users to park their vehicles on Kaimu-Kapoho Road and alleviate the hazards associated with this practice.

3.3.5 Visual Resources

Affected Environment

Current public viewpoints in the project area include Kaimu-Kapoho Road and the subject property. The road and mauka sections of the subject property currently offer views of coastal vegetation and a cottage. Views toward the coast are obscured by the flat topography and multiple layers of dense vegetation within the park; however the coast and swimming pond are visible on makai portions of the proposed park site.

Environmental Consequences

No views would be changed if the status quo were to be maintained.

Few views that currently exist would be altered under the proposed action. Relocating the parking lot from the mauka to the makai side of Kaimu-Kapoho Road and constructing a restroom and paths would introduce further developed elements to the scenic milieu near the cottage. To minimize this impact, the parking lot has been carefully designed to retain the maximum practical number of coconut trees and to incorporate additional native plant landscaping elements. Both the parking lot and paths would create viewpoints for some park users who would be otherwise unable to visit the park.

3.4 SUMMARY OF ENVIRONMENTAL CONSEQUENCES

3.4.1 Mitigation of Unavoidable Adverse Impacts

Mitigation refers to those actions that would reduce or eliminate potential adverse environmental impacts that could occur as a result of either action alternative. Many of the potentially adverse impacts described in the previous sections and the impact summary matrix (Table 2-2) are minor and do not require any formal mitigation.

BMPs, such as covering spoil piles and erecting silt fences, would be employed to minimize erosion. After development of the proposed park is complete, equipment staging areas and other disturbed sections would be revegetated and maintained as mowed lawn. To reduce the risk of casualties and damages from earthquake, all structures in the proposed park would be built to the current UBC seismic safety design standards. The composting toilet and leach field would be designed by a registered professional engineer and permitted by DOH. The design, construction, and maintenance of these systems would meet all appropriate DOH regulations. Construction of the restroom building and public notification of decisions regarding its construction would comply with EO 11988 and the NFIP and its implementing regulations.

As recommended by DFW and USFWS the county would conduct surveys for native bats and the Hawaiian hawk one week prior to the beginning of the proposed project. If hawks or bats are discovered in the project area, USFWS and DFW would be consulted to determine appropriate measures before any tree removal or other construction activities were undertaken. As an extra precaution to protect Hawaiian hawks, if hawks are seen, all land-clearing activity would be halted and personnel of USFWS and DFW would be notified. To protect night-flying seabirds, such as the Newell's shearwater, all lighting associated with the proposed action would be shielded to prevent light being directed upward, in compliance with the County of Hawaii Lighting Code.

The County of Hawaii would secure a Conservation District Use Permit from the State of Hawaii Board of Land and Natural Resources before implementing the proposed action. Before FEMA funding would be granted, the county would determine whether the proposed action is consistent with the state CZM program and would receive SMA permits from the state. If the

County of Hawaii Department of Planning determines that a certified shoreline survey of the property is required, the county would prepare this survey. To mitigate potential impacts to minority populations, construction areas and other public hazards would be barricaded and properly marked, trucks traveling through the area would maintain safe and legal speeds, construction noise would be kept within legal limits for Agricultural and Open/Conservation areas, and construction sites would be watered to minimize fugitive emissions, if necessary. The County of Hawaii would prepare a historic preservation plan for the identified archaeological site to ensure its preservation "as is."

3.4.2 Cumulative Impacts

The only known project in the vicinity of the proposed location of Ahalanui Park is the development of Pohoiki Park by the County of Hawaii. The approximate distance between Ahalanui Park and the proposed location of Pohoiki Park is 2 miles. All impacts associated with the proposed action would be either negligible or beneficial. The negligible impacts would be too localized to combine with any anticipated impacts from development of Pohoiki Park. Most beneficial impacts would also be too localized to combine with Pohoiki impacts. However, the overall effect of developing two county parks with coastal recreation opportunities would provide Lower Puna residents with a choice of county parks with coastal recreation.

Although there is a proposal to develop land mauka of the subject property, the plan is too speculative at this time to analyze the cumulative impacts of this project in conjunction with the proposed action.

SECTIONFOUR List of Agencies Contacted

Federal Emergency Management Agency	
Sandro Amaglio *	415/923-7284
Sean Dowling	808/851-7912
Steve Hambalek *	808/851-7926
National Marine Fisheries Service	
John Naughton	808/541-2727
Natural Resources Conservation Service	
Saku Nakamura	808/541-3414
U.S. Army Engineer District, Honolulu	
Linda Hihara-Endo *	808/439-9258
U.S. Fish and Wildlife Service	
Brooks Harper *	808/541-3441
U.S. Geologic Survey	
Donald Swanson	808/967-8819
State of Hawaii Department of Defense	
Roy Price *	808/733-4300
State of Hawaii Department of Health	
Aaron Ueno *	808/586-4309
Clifford Furukado	808/933-0917
State of Hawaii Department of Transportation	
Kazu Hayashida	808/587-1845
State of Hawaii Division of Aquatic Resources	
Robert Nishimoto	808/974-6202
State of Hawaii Division of Forestry and Wildlife	
Jon Giffin *	808/974-4221
State of Hawaii Historic Preservation Division	
Michael Wilson	808/587-0400
Don Hibbard *	808/587-0045
Marc Smith	808/963-5408
Patrick McCoy	808/587-0006
Nathan Napoka	808/587-0040

State of Hawaii Office of Environmental Quality Control	
Gary Gil *	808/586-4185
State of Hawaii Office of Hawaiian Affairs	
Lynn Lee *	808/594-1888
State of Hawaii Office of Planning	
Rick Egged *	808/527-2846
John Nakagawa	808/527-2878
County of Hawaii Civil Defense Agency	
Harry Kim *	808/935-0031
County of Hawaii Council	
Al Smith *	808/961-8225
County of Hawaii Department of Parks and Recreation	
Glenn Miyao	808/961-8313
George Yoshida	808/961-8311
County of Hawaii Department of Planning	
Norman Olesen *	808/961-8565
Virginia Goldstein *	808/961-8288
County of Hawaii Department of Public Works	
Donna Fay Kiyosaki *	808/961-8321
County of Hawaii Department of Water Supply	
Milton Pavao *	808/961-8660
Keith Okamoto	808/961-8660
County of Hawaii Police Department	
Wayne Carvalho *	808/935-3311
Puna Outdoor Circle and Friends of the Park	
Rene Siracusa *	808/965-6626
Lawai'a Ohana O Pohoiki	
Sandy Masaoka *	808/965-8952
Na Ohana O Kalapana *	

*Received at least one copy of the Draft EA on approximately March 6, 1998.

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Appendix A

State of Hawaii Environmental Assessment Findings

Appendix A
State of Hawaii Environmental Assessment Findings

The following findings have been made by the County of Hawaii in compliance with Chapter 343, Hawaii Revised Statutes (HRS), and do not apply to the Federal Emergency Management Agency (FEMA). The County of Hawaii Department of Parks and Recreation has determined that impacts from the proposed project will be minimal and that the project will not significantly alter the environment. Therefore, it has issued a Finding of No Significant Impact (FONSI), which means that a Chapter 343, HRS, Environmental Impact Statement is not warranted and will not be prepared. FEMA will make a determination of the significance of the proposed project when it executes a Finding of No Significant Impact or a Notice of Intent to prepare an Environmental Impact Statement.

Section 11-200-12 of the State Administrative Rules sets forth the criteria by which the significance of environmental impacts shall be evaluated. The following discussion paraphrases these criteria individually and evaluates the project's relation to each.

1. *The project will not involve an irrevocable commitment or loss or destruction of any natural or cultural resources.* The natural and cultural resources of the area affected by the improvements consist of open space and semi-natural vegetation. These will be largely preserved, and there are no substantial impacts. The broader resources of the area, in particular shoreline resources, will be protected by the property's status and use as a park.
2. *The project will not curtail the range of beneficial uses of the environment.* The proposal expands and in no way curtails beneficial use.
3. *The project will not conflict with the state's long-term environmental policies.* The State's long term environmental policies are set forth in Chapter 344, HRS. The broad goals of this policy are to conserve natural resources and enhance the quality of life. A number of specific guidelines support these goals. The project is environmentally benign and is consistent with all elements of the state's long-term environmental policies as expressed in Chapter 344, HRS. The project supports a number of guidelines, including those calling for establishing and maintaining historic, cultural, and recreation areas.
4. *The project will not substantially affect the economic or social welfare of the community or State.* The project will benefit the economic and social welfare of the Lower Puna area by enhancing recreational opportunities and improving the safety of park goers.
5. *The project does not substantially affect public health in any detrimental way.* The project improves public health by providing a restroom in an area that is heavily used by the public but currently lacks such a facility.
6. *The project will not involve substantial secondary impacts, such as population changes or effects on public facilities.* No known secondary effects will occur.
7. *The project will not involve a substantial degradation of environmental quality.* The effect of the project will be to improve environmental quality.
8. *The project will not substantially affect any rare, threatened, or endangered species of flora or fauna or habitat.* No endangered species of flora or fauna are known to exist in the areas affected by activities on the project site. No adverse effects to any native species will result.

9. *The project is not one which is individually limited but cumulatively may have considerable effect upon the environment or involves a commitment for larger actions.* Any adverse impacts related to the project are negligible and can be mitigated through proper enforcement of permit conditions. Therefore, such impacts will not accumulate in relation to other projects.

10. *The project will not detrimentally affect air or water quality or ambient noise levels.* The project will not affect these resources except to improve water quality by establishing a restroom.

11. *The project will not affect or is not likely to suffer damage by being located in an environmentally sensitive area, such as floodplains, tsunami zones, erosion-prone areas, geologically hazardous lands, estuaries, fresh waters, or coastal waters.* The project is located in a zone exposed to lava flow hazard, seismic hazard, and flooding from tsunamis and high surf. However, there are no reasonable alternatives, because these risks are shared by all areas with the potential to provide coastal recreation to Lower Puna residents. The proposed park is not expected to suffer damage from these hazards.

12. *The project will not substantially affect scenic vistas and viewplanes identified in county or state plans or studies.* No scenic vistas or viewplanes identified in county or state plans or studies are present in or affected by the proposed facilities. The park area currently offers a scenic vista of coastal vegetation and a cottage. The ocean is visible in some places, but is obscured by the flat topography and relatively dense, multiple layers of vegetation. Relocating the parking lot from the mauka to the makai side of the road and constructing a restroom will introduce further developed elements to the scenic milieu near the cottage. The parking lot has been carefully designed to retain the maximum practical number of coconut trees and to incorporate additional native plant landscaping elements. The remaining improvements will have no adverse impacts and in some cases (e.g., scenic paths) will provide beneficial impacts to scenic vistas.

13. *The project will not require substantial energy consumption.* No substantial input of energy would be required for construction or operation of various aspects of the park improvements.

For the reasons above, the County of Hawaii believes that the proposed project will not have any significant effect in the context of Chapter 343, Hawaii Revised Statues, and Section 11-200-12 of the State Administrative Rules.

Appendix B

Comment Letters Received During Project Scoping Process

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
P.O. BOX 4849
HILO, HAWAII 96720
(808) 974-4221
FAX (808) 974-4226

May 8, 1997

Mr. G. Morgan Griffin
Senior Staff Scientist
Partnership for Response and Recovery
Woodward-Clyde
200 Orchard Ridge Drive, Suite 101
Gaithersburg, MD 20878

Dr. Mr. Griffin:

Subject: Ahalanui Park EA and Pohoiki Park EA

This responds to your letter of April 23, 1997 requesting information about resource concerns within your project areas, including threatened, endangered, and candidate species and critical habitats. The Hawaii Branch of the Division of Forestry and Wildlife has reviewed the information and maps you provided and offers the following:

Ahalanui Park

Our Biologists sighted an endangered Hawaiian bat (Lasiurus cinereus semotus) in the parking lot at this site on November 20, 1996. We recommend that native bat surveys be conducted and that no tree removal activities be undertaken until trees are searched for bat roosting sites.

The endangered hawk (Buteo solitarius) and native owl (Asio flammenus sandwichensis) are occasional visitors at this site, but no nests have been found. We have no knowledge of other threatened, endangered or candidate animals at this location.

This area is not included within the critical habitat of any threatened, endangered or candidate species.

Pohoiki Park

We know of no resident hawks or owls at this site.

This area is not included within the critical habitat of any threatened, endangered or candidate species.

No rare or endangered plants have been found at either park site according to the Nature Conservancy Hawaii Heritage database. The database does show that anchialine pools are present along the coast. Some of these may support populations of native shrimp (Metabetaeus sp.). I suggest you check with The Nature Conservancy for details.

I hope the above is of some help.

Sincerely,

JON G. GIFFIN
Forestry and Wildlife Manager

Enc.

BENJAMIN J. CAYETANO
GOVERNOR

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
JERRY M. MATSUDA
GLENN M. OKIMOTO

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:
STP 8.7908

May 13, 1997

Mr. G. Morgan Griffin
Senior Staff Scientist
Partnership for Response and Recovery
Woodward-Clyde
200 Orchard Ridge Drive, Suite 101
Gaithersburg, Maryland 20878

Dear Mr. Griffin:

Subject: Ahalanui Park
Environmental Assessment (EA)
TMK: 1-4-002-005, -006, and -061
and
Pohoiki Park
Environmental Assessment (EA)
TMK: 1-3-008-016 and -033 and por 1-4-002-008

Thank you for your transmittal of April 23, 1997.

The subject developments will not have an impact on our State transportation facilities.

We appreciate the opportunity to provide comments.

Very truly yours,

Kazu Hayashida

KAZU HAYASHIDA
Director of Transportation

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

BENJAMIN J. CAYETANO
GOVERNOR
SEIJI F. NAYA
DIRECTOR
BRADLEY J. MOSSMAN
DEPUTY DIRECTOR
RICK EGGED
DIRECTOR, OFFICE OF PLANNING

OFFICE OF PLANNING
235 South Beretania Street, 6th Flr., Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Tel.: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-6681

May 15, 1997

Mr. G. Morgan Griffin
Senior Staff Scientist
Partnership for Response and Recovery
8401 Arlington Boulevard
Fairfax, Virginia 22031-4666

Dear Mr. Griffin:

Subject: Ahalanui Park and Pohoiki Park Environmental Assessments

This responds to your April 23, 1997, request for information regarding land use and coastal zone management for the preparation of environmental assessments for the development of Ahalanui Park and Pohoiki Park at Kapoho, Puna, Hawaii County.

Land Use

The Ahalanui Park site lies within the State Conservation Land Use District, Resource Subzone. A portion of the Pohoiki Park site is classified in the State Agricultural Land Use District and the remainder lies within the Conservation District, Resource Subzone. The Land Study Bureau's overall productivity ratings of the lands underlying these sites are class D and E, the lowest productivity ratings.

Under Chapter 13-5, Hawaii Administrative Rules, "Conservation District," parks and areas for outdoor recreational uses such as fishing, picnicking, camping, and hiking are allowed in the Resource Subzone of the Conservation District. Uses in the Conservation District are regulated by the Department of Land and Natural Resources.

Under Chapter 205, Hawaii Revised Statutes, generally known as the State Land Use Law, open area recreational facilities are allowed in the Agricultural District provided the lands are not overall productivity rating class A or B as determined by the Land Study Bureau's land classification.

We note that both sites lie within Special 100-Year Flood Hazard Areas, Zones AE (base flood elevations determined) and VE (coastal flood with velocity hazard; base flood elevations determined), as mapped on the FEMA Flood Insurance Rate Map.

We would defer to the Department of Land and Natural Resources for further comment on the proposed use of Conservation District lands, and to the State Historic Preservation Division of the Department of Land and Natural Resources for further information on potential impacts on historic and archaeological resources in the area.

We recommend that the subsurface hydrogeology of both park sites be studied to avoid potential contamination of the warm springs at Ahalanui Park and the wetland at Pohoiki Park by the proposed wastewater system. With respect to the Pohoiki Park proposal, we would also recommend that the demand for boat and trailer storage for this area be carefully examined to determine the appropriate size for this facility and to ascertain the likely peak traffic periods for this user group. The findings can then be used to ensure that final site design can accommodate the mix of users contemplated and minimize traffic conflicts between boat users and other recreational traffic and pedestrians.

Coastal Zone Management

The Federal Emergency Management Agency (FEMA) involvement in the projects triggers the Federal consistency requirements of the Coastal Zone Management Act, Section 307(c), and the Code of Federal Regulations, Title 15, Part 930. FEMA will need to submit a CZM consistency determination to the Office of Planning for our concurrence. The following information will be needed for the consistency review.

1. Project description. Explain the purpose and function of the project. Describe what the construction and operation activities will entail and the physical characteristics of both projects and their sites.

2. Provide location maps and schematic plans of the project.

3. FEMA must provide a statement indicating whether or not the proposed activity will be undertaken in a manner consistent to the maximum extent practicable with Hawaii's Coastal Zone Management Program.

4. The consistency statement must be based upon an evaluation of the relevant provisions of Hawaii's Coastal Zone Management Program contained in Section 205A-2, Hawaii Revised Statutes, which is enclosed. The evaluation may be provided on the CZM assessment and supplemental information forms beginning on page 27 in the "Hawaii CZM Program Federal Consistency Procedures Guide," also enclosed. The CZM consistency determination should provide information about the projects' effects on endangered, threatened, or native plants and animals; effects on scenic and open space resources; effects on historic, cultural and archaeological resources; effects on coastal ecosystems; and potential coastal hazards, such as wave inundation and shore erosion. Proposed mitigation measures should also be discussed.

5. Specific information about the wastewater treatment systems at both parks will be needed. Although wastewater treatment systems must comply with State Department of Health requirements, we are concerned that wastewater could infiltrate the warm-spring pond at Ahalanui Park and the wetland at Pohoiki Park. As mentioned in our land use comments, the subsurface hydrogeology of each site needs to be considered when siting the leach fields. This information should be provided in the EA and will be needed for the CZM consistency review.

6. Specific information about surface runoff and drainage at both parks will be needed. Runoff from construction activities and parking areas should be appropriately mitigated. In this regard, drainage information and plans should be provided in the EAs. If a boat wash down area is to be provided at Pohoiki Park then polluted runoff needs to be mitigated such that pollutants, such as petroleum products, do not enter the ocean.

7. If the project has received approvals or clearances from State and Federal resource agencies such as the State Historic Preservation Division and the U.S. Fish and Wildlife Service, these should be included with the CZM consistency determination.

8. The environmental assessments for the projects should be included as supplemental information. The information applicable to the CZM consistency review may be provided by the environmental assessments.

If you have any questions, please call John Nakagawa of our CZM Program at (808) 587-2878.

Sincerely,

Rick Egged
Director
Office of Planning

Enclosures

cc: Planning Department, County of Hawaii

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Ecological Services - Pacific Islands Ecoregion
300 Ala Moana Blvd., Room 3108
P.O. Box 50088
Honolulu, Hawaii 96850
Phone: (808) 541-3441
FAX: (808) 541-3470

MAY 22 1997

In Reply Refer To: SMJ

G. Morgan Griffin
Woodward-Clyde
Partnership for Response and Recovery
200 Orchard Ridge Drive, Suite 101
Gaithersburg, MD 20878

Dear Mr. Griffin:

On May 1, 1997, the U.S. Fish and Wildlife Service (Service) received your April 23, 1997, letter and accompanying information needed to evaluate the presence of federally endangered, threatened, proposed, and species of concern that may be present within the vicinity of the proposed development of two County of Hawaii parks.

According to the information we have received, you have been retained by the Federal Emergency Management Agency to prepare two environmental assessments for the development of two County of Hawaii parks. The parks are being proposed as a result of lava eruptions that destroyed three existing parks in the Kalapana area. The new parks will allow for a greater variety of recreational opportunities in the area.

The Service has reviewed the maps provided with your request and pertinent information in our files, including maps prepared by the Hawaii Heritage Program of The Nature Conservancy. The following species may occur within the vicinity of the project area (see enclosed map):

Dot No.	Species	Date of Last Obs.	Federal Status[1]
#8, 10	*Metabetaeus lohena* (Anchialine Pool Shrimp)	1992	SOC
#16	*Buteo soliatarius* (Hawaiian Hawk)	1967	E

[1]SOC - Species of Concern
E - Endangered

We appreciate your concern for endangered species. If you have any questions, please contact our Program Leader for Interagency Cooperation, Ms. Margo Stahl, or Fish and Wildlife Biologist Scott Johnston at 808/541-3441 (Fax: 808/541-3470; email: scott_johnston@mail.fws.gov).

Sincerely,

for Brooks Harper
Field Supervisor
Ecological Services

Enclosure

cc: FEMA

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

May 28, 1997

REPLY TO
ATTENTION OF:

Operations Branch

Mr. G. Morgan Griffin
Partnership for Response and Recovery
Woodward-Clyde
200 Orchard Ridge Drive, Suite 101
Gaithersburg, Maryland 20878

Dear Mr. Griffin:

Thank you for the opportunity to review and comment on the proposed work to develop Ahalanui and Pohoiki Park located in Kapoho, Hawaii. The following comments are provided as related to the Corps regulatory responsibilities for work in waters of the United States.

Pohoiki Park

The EA identifies a small wetland, less than 0.5 acre which is located on the eastern corner of the site. Although you propose to leave a 75-foot buffer between the wetland edge and the park, other work which may impact the function of the wetland is not clearly shown.

Ahalanui Park

The EA identifies a warm-spring swimming pond which is connected to the ocean by a narrow channel. Waters of the U.S. include ponds which are connected to navigable waters of the U.S. Any proposed work in the surrounding area would need to be evaluated for potential impacts to the pond. For a more precise determination and to further identify the Corps jurisdictional area of responsibility, a site visit would have to be conducted.

As your planning and design work progresses, we would like the opportunity to review any changes to determine probable project impacts to waters of the U.S.

File number 970000200 is assigned to Ahalanui Park and

970000201 to Pohoiki Park. Please refer to these numbers in any future correspondence with our office. Should you have further questions, you may call Ms. Lolly Silva of my staff at (808) 438-9258 extension 17.

Sincerely,

Linda M. Hihara-Endo, Ph.D., P.E.
Acting Chief, Operations Branch

Copies Furnished:

Clean Water Branch, Environmental Management Division, Hawaii State Department of Health, P.O. Box 3378, Honolulu, Hawaii 96801-3386
Office of Planning, Coastal Zone Management Program, P.O. Box 2359, Honolulu, Hawaii 96804
U.S. Fish and Wildlife Service, Environmental Services, 300 Ala Moana Blvd., Rm 3108, Honolulu, Hawaii 96850
National Marine Fisheries Service, Pacific Area Office, 2570 Dole Street, Honolulu, Hawaii 96822
State Historic Preservation Division, Department of Land and Natural Resources, 33 S. King Street, 6th Floor, Honolulu, Hawaii 96813
State of Hawaii, Department of Land and Natural Resources, Division of Aquatic Resources, 1151 Punchbowl Street, Honolulu, Hawaii 96813

United States Department of the Interior

GEOLOGICAL SURVEY
Hawaiian Volcano Observatory
P. O. Box 51
(Courier address: 1 Crater Rim Drive)
Hawaii National Park, HI 96718
U. S. A.
Voice: (808) 967-8819 or 967-7328
Fax: (808) 967-8819 or 967-8890
E-mail: donswan@liko.wr.usgs.gov

May 30, 1997

G. Morgan Griffin
Senior Staff Scientist
Woodward-Clyde
200 Orchard Ridge Drive, Suite 101
Gaithersburg, MD 20878

Dear Mr. Griffin:

I have shown your letter of April 23, 1997, to several staff members of the Hawaiian Volcano Observatory (HVO) and requested comments from them concerning the EAs for Ahalanui Park and Pohoiki Park. The following comments are general in nature and pertain to both projects, and so, contrary to your request, I am not discussing each project separately. I address only issues related to volcanic activity and related ground deformation and seismicity—the pertinent areas of expertise of HVO.

The area is within lava-flow hazard zone 2, downslope from Kilauea's east rift zone on lava flows that are 400–750 years old. Nearby lava flows were erupted in 1790 and 1955. The area can be expected to be covered by lava at any time within the next several hundred years. Depending on wind directions, vog could present a problem if a long-lasting eruption were to take place anywhere along the east rift zone in central or east Puna. Small amounts of volcanic ash could be expected to fall on the area during high lava fountaining from nearby parts of the rift zone.

The entire Island of Hawaii is currently in Seismic Zone 3 of the Uniform Building Code. However, the zoning is currently being upgraded to Zone 4, the highest seismic hazard zone. A magnitude 7.2 earthquake on November 29, 1975, was centered about 25 km west-southwest of the area. It caused much of the coastline farther west to subside (as much as 3.5 m), but the coastline in the project area subsided only a few centimeters, probably less than 35 cm. In addition, the 1975 earthquake caused a tsunami that inundated the coastline in the project area to a depth of nearly 2.5 m, and other earthquakes in 1868 and probably 1823 most likely resulted in tsunami of similar heights. Tsunami, whether generated by local or at distant earthquakes, probably pose the single greatest short-term threat to beach-front facilities in Hawaii.

West Hawaii is gradually subsiding owing to the weight of the island on the oceanic lithosphere. Tide-gage records in Hilo indicate such isostatic sinking of about 3–4 mm per year. Probably the project area is sinking even more rapidly, because we know that subsidence rates in parts of east Puna are considerably more than the isostatic rate. For example, the Kapoho graben, north of the project site, has been sinking at a rate of about 1.7 cm per year since 1975. A water well at Malama Ki, about 6 km west of the project site, indicates an even higher subsidence rate of about 2 cm/yr. Most likely the project area is sinking at a rate of about 2 cm per year (1 m in 50 years), 6–7 times that of isostatic subsidence alone.

Lava flows entering the ocean farther northeast of the project area could generate black sand that would be carried by long-shore currents into the project area. Such sand might tend to build back beaches drowned by subsidence, but this is purely conjecture.

Please do not hesitate to contact me if you have any questions about this material or any other aspect of the volcanic, seismic, or deformation issues about the project area.

Sincerely yours,

Donald A. Swanson
Scientist-in-Charge

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

MICHAEL D. WILSON, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

Gilbert Coloma-Agaran

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

REF:HP-AMK

MAY 30 1997

LOG NO: 19428
DOC NO: 9705PM06

Dr. John H. Sprinkle, Jr.
Woodward-Clyde Federal Services
200 Orchard Ridge Drive, Suite 101
Gaithersburg, MD 20878

Dear Dr. Sprinkle:

SUBJECT: Historic Preservation Issues and Assessment of Information Needs for Proposed Developments at Ahalanui (Puala`a) Park and Pohoiki (Isaac Hale) Park Pualaa and Pohoiki, Puna, Hawaii Island TMK: 1-4-002:5, 6 and 61, and 1-3-008: 16 and 33; 1-4-002:8

This is in response to your two letters of May 1, 1997 to Don Hibbard, Administrator of the Historic Preservation Division, about your company's involvement in the preparation of Environmental Assessments for the two subject parks.

With regard to the Ahalanui (Puala`a) Park, TMK 1-4-002: 005 and 006 are both developed, thus making it unlikely that they contain significant historic sites. We have some information that there may be some unrecorded well sites in a coconut grove in TMK: 1-4-002: 061. A survey, preferably in the company of local informants, should be undertaken to verify this information and to check for other sites.

For the Pohoiki (Isaac Hale) Park, TMK 1-3-008: 016 and 033 do not appear to contain significant historic sites. TMK 1-4-002: 008 does not appear to have ever been surveyed, but we suspect that there is a high probability of human burials in this parcel. We recommend a survey of this parcel.

In addition to the need for an archaeological survey of the two parcels noted above, we want to remind you of the need to also consult with Native Hawaiian organizations and individuals to determine the presence/absence of traditional cultural properties in the project area. As a Federal undertaking consultation is needed to fulfill the requirements of Section 106 of the National Historic Preservation Act of 1966 as amended in 1990 and 1992. Until the consultation process has been concluded we cannot agree that all significant historic sites in the project area have been

identified. We recommend that you contact the Office of Hawaiian Affairs in Honolulu and Mr. Kekialoha Kekipi, a member of the Hawaii Island Burial Council from Puna. His address is PO Box 2177, Pahoa, Hawaii 96778.

If you should have any questions please contact our Hawaii Island staff archaeologist, Patrick McCoy (587-0006) or his assistant, Marc Smith (933-4346).

Aloha,

for MICHAEL D. WILSON, Chairperson and
State Historic Preservation Officer

PM:amk

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

P.O. BOX 621
HONOLULU, HAWAII 96809

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
WATER RESOURCE MANAGEMENT

Ref.:PB:SL

JUN 12 1997

Mr. G. Morgan Griffin
Partnership for Response and Recovery
Dewberry & Davis
8401 Arlington Boulevard
Fairfax, VA 22031-4666

Dear Mr. Griffin:

Subject: Pre-consultation on the Proposed Ahalanui Park and Pohoiki EAs, Kalapana, Hawaii

Thank you for giving our Department the opportunity to comment on this matter. We have review the subject materials and have the following comments.

If the proposed parks are to be located in the State Land Use Conservation District, a Conservation District Use Application will be required in addition to other County permits. We have enclosed a copy of our Department's Administrative Rules and a CDUA form for your use.

Our Department's Division of Aquatic Resources suggests that the forthcoming EA discuss in detail potential short term impacts and propose specific means for averting or minimizing adverse effects to the environment.

Any proposed shoreline improvements or modifications should be adequately described in the EA's and the Department should have the opportunity to review all activities that may affect the use of State shoreline land in the vicinity of the proposed two parks.

In addition, the proposed parks, according to FEMA Community Panel Map No. 155166 1400 C, are located in zone VE. This is an area of coastal flooding with a velocity hazard (wave action), and base flood elevations.

Thank you for your cooperation in this matter. Please feel free to contact Sam Lemmo of our Land Division's Planning Branch at (808) 587-0381, should you have any question on this matter.

Aloha,

Michael D. Wilson

BENJAMIN J. CAYETANO
GOVERNOR
SEIJI F. NAYA
DIRECTOR
BRADLEY J. MOSSMAN
DEPUTY DIRECTOR
RICK EGGED
DIRECTOR, OFFICE OF PLANNING

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

OFFICE OF PLANNING

235 South Beretania Street, 6th Flr., Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Tel.: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-6745

June 17, 1997

Mr. G. Morgan Griffin
Senior Staff Scientist
Partnership for Response and Recovery
8401 Arlington Boulevard
Fairfax, Virginia 22031-4666

Dear Mr. Griffin:

Subject: Hawaii Coastal Zone Management (CZM) Program Federal Consistency Requirements for the Development of Ahalanui Park and Pohoiki Park at Kapoho, Puna, Hawaii County

This is to clarify the Hawaii CZM Program Federal consistency requirements for the development of Ahalanui Park and Pohoiki Park as discussed in your telephone conversation with John Nakagawa of our CZM Program on June 17, 1997. According to the additional information you provided about the Federal Emergency Management Agency (FEMA) involvement in the projects, FEMA will not be directly involved in the parks development but will be providing Federal funds. Therefore, FEMA does not have to submit a CZM consistency determination for a direct Federal activity as indicated in our letter of May 15, 1997. If the FEMA funds will be from the Disaster Assistance Program (OMB no. 83.516), then the County of Hawaii will need to submit a CZM consistency determination to the Office of Planning for our concurrence.

We suggest that the land use and CZM comments in our letter of May 15, 1997, still be considered in the preparation of the environmental assessments for the projects. The environmental assessments should contain an evaluation of the projects' compliance with Hawaii's CZM Program because the State CZM law, Chapter 205A, Hawaii Revised Statutes, requires all State and County agencies' actions to be in compliance.

If you have any questions, please call John Nakagawa of our CZM Program at (808) 587-2878.

Sincerely,

Rick Egged
Director
Office of Planning

cc: Planning Department, County of Hawaii
Department of Parks & Recreation, County of Hawaii

Stephen K. Yamashiro
Mayor

Wayne G. Carvalho
Police Chief

James S. Correa
Deputy Police Chief

County of Hawaii
POLICE DEPARTMENT

349 Kapiolani Street • Hilo, Hawaii 96720-3998
(808) 935-3311 • Fax (808) 961-2702

August 22, 1997

Mr. Ron Terry, Ph.D.
HCR 1 Box 9575
Keaau, HI 96749

Dear Dr. Terry:

SUBJECT: ENVIRONMENTAL ASSESSMENT FOR IMPROVEMENTS TO AHALANUI BEACH PARK IN PUNA, TMK: 1-4-02:005, -006, & -061

We support your proposal to improve Ahalanui Beach Park. Our only concern at this time involves security at the existing parking lot.

To reduce the opportunity for thefts and vandalism, we recommend that consideration be given to improving visibility and controlling access to the parking lot.

Thank you for the opportunity to comment.

Sincerely,

Wayne G. Carvalho

WAYNE G. CARVALHO
POLICE CHIEF

EO:lk

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII
25 AUPUNI STREET • HILO, HAWAII 96720
TELEPHONE (808) 969-1421 • FAX (808) 969-6996

September 3, 1997

Mr. Ron Terry
Geo Metrician
HCR 9675
Keaau, HI 96749

PREPARATION OF AN ENVIRONMENTAL ASSESSMENT FOR THE IMPROVEMENTS TO AHALANUI BEACH PARK
TAX MAP KEY 1-4-002:005, 006, AND 061

This is in response to your letter of August 14, 1997.

Pursuant to your request, we are enclosing a copy of the chemical analysis for the Pahoa Water System. For your information, this water system supplies water to Ahalanui Beach Park, Pohoiki-Kapoho, and Pahoa area.

We request that a copy of the environmental assessment be submitted for our files.

Should there be any questions, you can contact our Water Resources and Planning Branch at 961-8660.

Milton D. Pavao, P.E.
Manager

WA:dms

004	CHLORINATOR SHED	PAHOA BATTERY WELLS	SOC	ND			02/22/94	KAWAKAMI
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	NVN/FL	D	NITRATE	0.36 (10.0)	02/22/94	KAWAKAMI

SYSTEM # 111

PAHOA WATER SYSTEM

CHEMICAL TEST RESULTS

MONITORING PERIOD : 1991 TO 1994

SAMPLE POINT ID #	SAMPLE LOCATION	SOURCE	CHEMICAL GROUP	RESULT	PARAMETER DETECTED	AMOUNT (MCL)	DATE	SAMPLER
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	INORGANIC	D	NITRATE	0.28 (10.0)	07/31/91	NAKAMURA
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	VOC	NQ	DI-BROMO		07/31/91	NAKAMURA
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	VOC	D	CHLOROFORM	0.9 (100)	07/27/92	TOMORI
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL		D	BROMO--DI	1.4 (100)		
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL		D	DI-BROMO	1.5 (100)		
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	EDB/DBCP	ND			02/16/93	KAWAKAMI
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	CARBAMATE	ND			02/16/93	KAWAKAMI
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	EDB/DBCP	ND			07/13/93	KAWAKAMI
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	CARBAMATE	ND			07/13/93	KAWAKAMI
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	SOC	ND			07/13/93	KAWAKAMI
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	SOC	ND			08/04/93	UEOKA
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	EDB/DBCP	ND			08/26/93	UEOKA
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	CARBAMATE	ND			08/26/93	UEOKA
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	SOC	ND			08/26/93	UEOKA
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	EDB/DBCP	ND			12/21/93	FRANCO
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	CARBAMATE	ND			12/21/93	FRANCO
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	SOC	ND			12/21/93	FRANCO
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	INORGANIC	ND			12/21/93	FRANCO
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	INORGANIC	D	NITRATE	0.32 (10)	01/27/94	FRANCO
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	SOC	ND			02/22/94	FRANCO
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	NIN/FL	D	NITRATE	0.38 (10.0)	02/22/94	FRANCO
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	VOC	D	DI-BROMO	1.4 (100)	02/22/94	FRANCO
				NQ	CHLOROFORM			
				NQ	BROMO--DI			
				NQ	BROMOFORM			
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	INORGANIC	ND			08/02/94	KAWAKAMI
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	GLYPHOSATE	ND			11/10/94	TOMORI
002	PAHOA WELL A	PAHOA BATTERY WELLS	VOC	ND			07/16/91	TOMORI
002	PAHOA WELL A	PAHOA BATTERY WELLS	INORGANIC	D	NITRATE	.050 (10.0)	07/16/91	TOMORI
002	PAHOA WELL A	PAHOA BATTERY WELLS	TRIAZINE	ND			08/29/91	TOMORI
002	PAHOA WELL A	PAHOA BATTERY WELLS	TRIAZINE	ND			10/03/91	TOMORI
002	PAHOA WELL A	PAHOA BATTERY WELLS	INORGANIC	D	NITRATE	0.30 (10.0)	07/07/92	TOMORI
002	PAHOA WELL A	PAHOA BATTERY WELLS	VOC	ND			07/17/92	TOMORI
002	PAHOA WELL A	PAHOA BATTERY WELLS	VOC	D	DI-BROMO	1.7 (100)	07/27/92	TOMORI
002	PAHOA WELL A	PAHOA BATTERY WELLS		NQ	CHLOROFORM			
002	PAHOA WELL A	PAHOA BATTERY WELLS		NQ	BROMOFORM			
002	PAHOA WELL A	PAHOA BATTERY WELLS		NQ	BROMO--DI			
002	PAHOA WELL A	PAHOA BATTERY WELLS	EDB/DBCP	ND			02/16/93	KAWAKAMI
002	PAHOA WELL A	PAHOA BATTERY WELLS	CARBAMATE	ND			02/16/93	KAWAKAMI
002	PAHOA WELL A	PAHOA BATTERY WELLS	EDB/DBCP	ND			07/13/93	KAWAKAMI
002	PAHOA WELL A	PAHOA BATTERY WELLS	CARBAMATE	ND			07/13/93	KAWAKAMI
002	PAHOA WELL A	PAHOA BATTERY WELLS	SOC	ND			07/13/93	KAWAKAMI
002	PAHOA WELL A	PAHOA BATTERY WELLS	INORGANIC	D	FLUORIDE	0.3 (1.4)	08/02/94	KAWAKAMI
002	PAHOA WELL A	PAHOA BATTERY WELLS	SOC	ND			08/04/93	UEOKA
002	PAHOA WELL A	PAHOA BATTERY WELLS	TRIAZINE	ND			08/29/93	KAWAKAMI
003	PAHOA WELL B	PAHOA BATTERY WELLS	EDB/DBCP	ND			02/16/93	KAWAKAMI
003	PAHOA WELL B	PAHOA BATTERY WELLS	CARBAMATE	ND			02/16/93	KAWAKAMI
003	PAHOA WELL B	PAHOA BATTERY WELLS	INORGANIC	D	FLUORIDE	0.3 (1.4)	08/02/94	KAWAKAMI
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	INORGANIC	D	NITRATE	0.29 (10.0)	07/07/92	TOMORI
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	EDB/DBCP	ND			07/13/93	KAWAKAMI
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	CARBAMATE	ND			07/13/93	KAWAKAMI
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	SOC	ND			07/13/93	KAWAKAMI
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	SOC	ND			08/04/93	UEOKA
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	EDB/DBCP	ND			08/26/93	UEOKA
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	CARBAMATE	ND			08/26/93	UEOKA
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	SOC	ND			08/26/93	UEOKA
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	EDB/DBCP	ND			12/21/93	KAWAKAMI
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	CARBAMATE	ND			12/21/93	KAWAKAMI
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	SOC	ND			12/21/93	KAWAKAMI
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	INORGANIC	ND			12/21/93	FRANCO
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	INORGANIC	ND			12/21/93	FRANCO
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	INORGANIC	D	NITRATE	0.34 (10)	01/27/94	FRANCO
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	SOC	ND			02/22/94	KAWAKAMI
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	NIN/FL	D	NITRATE	0.36 (10.0)	02/22/94	KAWAKAMI
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	VOC	ND			02/22/94	KAWAKAMI
005	OLAA STATION #3 WELL	OLAA STATION #3 WELL	INORGANIC	ND			12/21/93	FRANCO
005	OLAA STATION #3 WELL	OLAA STATION #3 WELL	INORGANIC	D	NITRATE	0.37 (10)	01/27/94	FRANCO
100	KEAAU SERVICE STATION TANKER #1		VOC	NQ	CHLOROFORM		01/19/93	TOMORI
				NQ	BROMO--DI			
				NQ	DI-BROMO			
101	KEAAU SERVICE STATION TANKER #2		VOC	NQ	CHLOROFORM		01/19/93	TOMORI
				NQ	BROMO--DI			
				NQ	DI-BROMO			
400	KEAAU STANDPIPE	KEAAU WELLS	VOC	ND			01/19/93	TOMORI

SYSTEM # 111

PAHOA WATER SYSTEM

CHEMICAL TEST RESULTS

MONITORING PERIOD: 1995 TO PRESENT

SAMPLE POINT ID #	SAMPLE LOCATION	SOURCE	CHEMICAL GROUP	RESULT	PARAMETER DETECTED	AMOUNT (MCL)	DATE	SAMPLER
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	GLYPHOSATE	ND			03/08/95	UEOKA
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	NITRATE	D	NITRATE	0.28 (10.0)	04/19/95	UEOKA
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	GLYPHOSATE	ND			11/14/95	UEOKA
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	GLYPHOSATE	ND			02/20/96	KAWAKAMI
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	N/NITRATE	D	NITRATE	0.25 (10.0)	04/09/96	UEOKA
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	INORGANIC	ND			04/09/96	UEOKA
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	SOC 1	ND			06/26/96	KAWAKAMI
001	KEONEPOKO NUI WELL	KEONEPOKO NUI WELL	SOC 2	ND			06/26/96	KAWAKAMI
002	PAHOA WELL A	PAHOA BATTERY WELLS	SOC 1	ND			06/26/96	KAWAKAMI
002	PAHOA WELL A	PAHOA BATTERY WELLS	SOC 2	ND			06/26/96	KAWAKAMI
003	PAHOA WELL B	PAHOA BATTERY WELLS	SOC 1	ND			06/26/96	KAWAKAMI
003	PAHOA WELL B	PAHOA BATTERY WELLS	SOC 2	ND			06/26/96	KAWAKAMI
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	GLYPHOSATE	ND			01/17/95	KAWAKAMI
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	GLYPHOSATE	ND			03/08/95	UEOKA
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	NITRATE	D	NITRATE	0.28 (10.0)	04/19/95	UEOKA
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	GLYPHOSATE	ND			11/14/95	UEOKA
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	GLYPHOSATE	ND			02/20/96	KAWAKAMI
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	N/NITRATE	D	NITRATE	0.24 (10.0)	04/09/96	UEOKA
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	INORGANIC	ND			04/09/96	UEOKA
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	SOC 1	ND			06/26/96	KAWAKAMI
004	CHLORINATOR SHED	PAHOA BATTERY WELLS	SOC 2	ND			06/26/96	KAWAKAMI

004 CHLORINATOR SHED PAHOA BATTERY WELLS

BENJAMIN J. CAYETANO
GOVERNOR

LAWRENCE MIIKE
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 916
HILO, HAWAII 96721-0916

DATE: August 22, 1997

TO: GEO METRICIAN
Attn: Ron Terry, Ph.D.

FROM: Aaron Ueno, District Environmental Health
Program Chief, Hawaii District Health Office

SUBJECT: TMK: 1-4-02:05, 06 & 061, Environmental Assessment

Thank you for allowing the Department of Health to make comments on the proposed project. The following concerns of the Department of Health is shared with you:

The subject lots are located in the Critical Wastewater Disposal Area where cesspools are not allowed because of water pollution concerns. Any development on these lots would require all wastewater (including graywater) be disposed by means of a treatment Individual Wastewater Disposal System. These wastewater disposal systems would need to be designed by a registered professional engineer licensed by the State of Hawaii.

Underground Injection Systems (Ph. 586-4258) which receive wastewater or storm run-offs from the proposed development need to address the requirements of Chapter 23, Hawaii State Department of Health Administrative Rules, Title 11, "Underground Injection Control."

The applicant should contact the Army Corps of Engineers (COE) to identify whether a Federal permit (including a Department of Army (DA) permit) is required for this project. A Section 401 Water Quality Certification (WQC) is required for "Any applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters...", pursuant to Section 401(a)(1) of the Federal Water Pollution Act (commonly known as the "Clean Water Act (CWA)").

If the project involves the following activities with discharges into State waters, an NPDES general permit is required for each activity:

a. Discharge of storm water runoff associated with construction activities, including clearing, grading,and excavation that result in the disturbance of equal to or greater than five (5) acres of total land area;

b. Construction dewatering effluent;

c. Non-contact cooling water;

d. Hydrotesting water; and

e. Treated contaminated groundwater from underground storage tank remedial activity.

The application for NPDES general permit coverage should be submitted to the Director at least 30 days prior to the discharge to State waters.

If there is any type of process wastewater discharge from the facility into State waters, the applicant may be required to apply for an Individual NPDES permit. The application for an Individual NPDES permit should be submitted to the Director at least 180 days prior to the discharge of process wastewater to State waters.

Should you have any further questions regarding this matter, please contact the Engineering Section of the Clean Water Branch in Honolulu at (808) 586-4309.

AARON UENO

WP51:RONTERRY.at

Stephen K. Yamashiro
Mayor

Virginia Goldstein
Director

Russell Kokubun
Deputy Director

County of Hawaii

PLANNING DEPARTMENT

25 Aupuni Street, Room 109 • Hilo, Hawaii 96720-4252
(808) 961-8288 • Fax (808) 961-9615

September 25, 1997

Mr. Ron Terry, Ph.D.
Geo Metrician
HCR 9575
Keaau, HI 96749

Dear Mr. Terry:

Request for Comments regarding the Preparation of a Draft Environmental Assessment for Various Improvements to Ahalanui Beach Park (formerly Puala'a Beach Park)
TMK: 1-4-02: 5, 6 and 61; Puala'a, Puna, Hawaii

This letter will respond to your request dated August 14, 1997, regarding Ahalanui Beach Park. We have the following comments to offer for your consideration:

- The subject property is situated within an area designated as "Conservation" by the State Land Use Commission. All uses, improvements and activities to be situated within the project site must first secure all proper approvals from the Board of Land and Natural Resources.

- The project site is situated within an area designated by the General Plan LUPAG Map as *Orchards* with *Open* along the shoreline. The establishment of a public park would not be contrary to uses allowed under these land use designations.

- The subject property is zoned Agricultural-1 acre (A-1a) by the County. This office will defer jurisdiction over land use within the Conservation District to the Department of Land and Natural Resources.

- The subject property is situated within the County's Special Management Area (SMA). An SMA Use Permit Assessment Application should be submitted to this office for review at the earliest practicable opportunity. The application should contain a detailed

site plan showing all proposed improvements, elevation drawings of proposed structures, location of wastewater disposal systems, and other related improvements.

- The County's Shoreline Setback regulations are applicable to this property. No improvements will be permitted within an area extending 40 feet from the shoreline. At the time of our review of the SMA Use Permit Assessment Application, we will make a determination regarding the need to prepare a certified shoreline survey of the property.

We hope the information provided above are of help to you. We will reserve further comments pending our receipt of the draft environmental assessment. In the meantime, please contact Daryn Arai of this office should you have any questions.

Sincerely,

for VIRGINIA GOLDSTEIN
Planning Director

DSA:pak
f:\wp60\czm\Ch343\LAhala01.dsa

xc: Department of Parks and Recreation

BENJAMIN J. CAYETANO
GOVERNOR

MAJOR GENERAL EDWARD V. RICHARDSON
DIRECTOR OF CIVIL DEFENSE

ROY C. PRICE, SR.
VICE DIRECTOR OF CIVIL DEFENSE

PHONE (808) 733-4300
FAX (808) 733-4287

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

December 19, 1997

Mr. William L. Carwile III
Director, Pacific Area Office
Federal Emergency Management Agency (FEMA)
Building T-112, Stop 120
Fort Shafter, Hawaii 96858-5000

Dear Mr. Carwile:

Preliminary Draft Environmental Assessment Reports: Replacement of Puna District Beach Front Parks; 'Ahalanui, Hawaii County, Hawaii
Kilauea Lava Flow Disaster, FEMA-864-DR

Thank you for the opportunity to comment on the Preliminary Draft Environmental Assessment Reports for the Replacement of Puna District Beach Front Parks at Pohoiki and 'Ahalanui, Hawaii County. We do not have any negative comment specifically directed at the Preliminary Draft Reports and concur with the release of the reports in Draft status.

The following recommendations are provided for your action-as appropriate:

1). The park site at Pohoiki presently has a siren located near the proposed Handicapped parking stalls. Recommend that this siren be upgraded and relocated to the public parking area of the new facility. This siren must have a minimum output of 121dB omnidirectional, solar powered, and be compatible with the existing civil defense siren system. The proposed siren should have a minimum 250 foot separation distance from residential buildings.

The suggested location for the siren is annotated on the enclosed exhibit 2-1, site plan of Pohoiki Park.

2). The park site at 'Ahalanui presently does not have a siren located in the area of the proposed park. Recommend that a siren be installed in or near the public parking area of the new facility. A specific location may be coordinated prior to final park design. This siren must have a minimum output of 121dB omnidirectional, solar powered, and be compatible with the existing civil defense siren system. The proposed siren should have a minimum 250 foot separation distance from residential buildings.

Just as parks, schools, fire hydrants, underground/overhead utilities and sidewalks are considered as integral parts of planned developments, so must an emergency warning system and support infrastructure be purchased and installed by the developer for the safety and well-being of park users.

If you have any questions or require additional information, please contact Mr. Ed Teixeira, Disaster Assistance Planner, or Mr. Norman Ogasawara, Telecommunications Branch, at 733-4300.

Sincerely,

ROY C. PRICE, SR.
Vice Director of Civil Defense

Enc.

United States Department of the Interior

FISH AND WILDLIFE SERVICE

PACIFIC ISLANDS ECOREGION
300 ALA MOANA BOULEVARD, ROOM 3108
BOX 50088
HONOLULU, HAWAII 96850
PHONE: (808) 541-3441 FAX: (808) 541-3470

JAN 9 1998

In Reply Refer To: CMC

Ronald L. Dodini
Federal Emergency Management Agency
Region IX Pacific Area Office
Building T-112 Stop 120
Fort Shafter, Hawaii 96858-5000

Re: FEMA-0864-DR-HI, DSR 15303, Ahalanui Park and Section 7 Informal Consultation

Dear Mr. Dodini:

This responds to your November 21, 1997 letter requesting our concurrence under section 7 of the U.S. Endangered Species Act that a proposed project to improve Ahalanui Park in Hawaii County, Hawaii, is not likely to adversely affect endangered or threatened species. The project sponsor is the Federal Emergency Management Agency (FEMA).

A map showing proposed areas in the County of Hawaii for the development of two parks was provided to our office on May 1, 1997, by G. Morgan Griffin of Woodward-Clyde, the company that was retained by FEMA to prepare the environmental assessments for the proposed parks. On May 22, 1997, we informed Mr. Griffin that the endangered Hawaiian hawk (*Buteo solitarius*) and an anchialine pool shrimp (*Metabetaeus lohena*), a species of concern, may occur at or near the project site. In your November 21 letter, you state that the Hawaii Division of Forestry and Wildlife (DOFAW) informed you of a November 1996 sighting of the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) in the project area. Although a complete description of your proposed project was not provided with your letter seeking our concurrence, you indicate that (1) no work will occur in or near the anchialine pools; and, (2) no Hawaiian hawk nests are currently known to exist at the project site, and, should hawks be seen in the vicinity "behaving aggressively", you will stop all work and notify DOFAW and this office.

To date, only one sighting of the Hawaiian hoary bat has been recorded at the site, where the bat was flying over the parking lot area. There is no reason to believe that the hoary bat is roosting or routinely foraging in the project area. Therefore, we concur with your determination that the removal of no more than 30 coconut trees from the park for a parking area and restroom, and the

removal of a single milo tree, are not likely to adversely affect Hawaiian hoary bats that may occur in the vicinity.

We will also concur with your determination that the proposed project is not likely to adversely affect the Hawaiian hawk, provided a search for Hawaiian hawk nests is done by a qualified biologist immediately prior to initiation of the project and no nests are found. If an active nest is located, work will be halted and FEMA will notify DOFAW and this office.

The requirements of section 7 of the Endangered Species Act (Act) have been satisfied. However, obligations under section 7 of the Act must be reconsidered, if 1) new information reveals impacts of this defined action that may affect listed species or critical habitat in a manner that was not previously considered; 2) this action is subsequently modified in a manner not previously considered in this assessment; or 3) a new species is listed or critical habitat determined that may be affected by the identified action.

If you have questions or comments, please contact our Program Coordinator for Interagency Cooperation, Ms. Margo Stahl or Fish and Wildlife Biologist Christina Crooker at (808) 541-3441.

Sincerely,

Karen W Rosa

for/ Brooks Harper
Field Supervisor
Ecological Services

CC: DOFAW, Hilo

Appendix C

Comments on Draft Environmental Assessment and County of Hawaii Responses

BENJAMIN J. CAYETANO
GOVERNOR

GARY GILL
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

March 9, 1998

George Yoshida
Hawaii Department of Parks & Recreation
25 Aupuni Street, #210
Hilo, HI 96720

Dear Mr. Yoshida:

Subject: Draft Environmental Assessment (EA) Ahalanui Park Development, Pualaa, Puna

We have the following comments to offer:

1. Contacts: The pre-consultation comment letters in Appendix B from the Department of Land and Natural Resources and from the Department of Water Supply specifically request copies of the draft EA. List all state and county agencies, neighbors or neighboring landowners receiving copies of the draft EA along with their dates of distribution. All correspondents should be allowed sufficient time (at least 2 weeks) to review the draft EA and submit comments. In the final EA document all contacts and include copies of any correspondence.

2. Timeframe: What are the anticipated start and end dates of this project?

3. Funding: The total project cost is not given. Please disclose all state or county funds involved, including any federal funds flowing through the state or county.

4. Visual impacts: Identify public viewpoints of the project site from which visual impacts may occur, especially of mauka and makai viewplanes. Show impacts by superimposing a rendering of the proposed facilities and landscaping onto photographs taken from public vantage points.

5. Significance criteria: Your analysis of significance according to criteria listed in HAR 11-200-12 did not include one that was amended nor two criteria that

were added, both as of 8-31-96:

(11) Affects *or is likely to suffer damage by being located in* an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;
(12) Substantially affects scenic vistas and viewplanes identified in county or state plans or studies;
(13) Requires substantial energy consumption. Please include these in the final EA.

Please include these in the final EA.

6. Map: In the final EA enclose a location map that shows the relation of the park site to its neighboring parcels.

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

Sincerely,

GARY GILL

c: Ron Terry

Stephen K. Yamashiro
Mayor

George Yoshida
Director

Juliette M. Tulang
Deputy Director

County of Hawaii

DEPARTMENT OF PARKS AND RECREATION
25 Aupuni Street, Room 210 • Hilo, Hawaii 96720-4252
(808) 961-8311

April 29, 1998

Mr. Gary Gill, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, HI 96813

Dear Mr. Gill:

Subject: Draft Environmental Assessment (EA) for Development of Ahalanui Park, Hawaii County, Hawaii

Thank you for your comments addressed to our consultant Dr. Terry, dated 9 March 1998, concerning the subject project. Below is our point-by-point response.

1. *Contacts*. The list on p. 4-1 has been clarified to indicate exactly which agencies received the draft EA. Appendix B now includes copies of all correspondence related to the project, including responses by FEMA (if any) to those who commented. A separate appendix documents all comments on the Draft EA and our responses to these comments.

2. *Timeframe*. The EA has been amended to include the information that the project is scheduled to begin in mid-1998 and end in 2001.

3. *Funding*. The EA has been amended to include the information that the project cost will total approximately $1.5 million, with funding by federal government (FEMA) and the County of Hawaii on a 75-25 match basis.

4. *Visual Impacts*. A new section has been added dealing with visual impacts. No vistas identified in county or state plans or studies are present in or affected by the proposed facilities. The park area currently offers a scenic vista of coastal vegetation and a cottage. The ocean is visible in some places, but the flat topography and multiple layers of relatively dense

vegetation mostly obscure it. Relocating the parking lot from the mauka to makai side of the road and constructing a restroom will introduce further developed elements to the scenic milieu near the cottage. The parking lot has been carefully designed to retain the maximum practical number of coconut trees and to incorporate additional native plant landscaping elements. The remaining improvements will have no adverse impacts to scenery, and in some cases (e.g., scenic paths) will provide beneficial impacts to scenic vistas.

5. *Significance Criteria*. Discussion of the two significance criteria has been added to the Final EA. We have also amended the citation and discussion of revised significance criteria no. 11.

6. *Map*. A location map showing the relation of the park site to neighboring parcels has been added.

Again, thank you for your comments.

Sincerely,

George Yoshida

cc: Mr William Carwile
Director, Pacific Area Office
Federal Emergency Management Agency (FEMA)
Building T-112, Stop 120
Fort Shafter, Hawaii 96858-5000

BENJAMIN J. CAYETANO
GOVERNOR

MAJOR GENERAL EDWARD V. RICHARDSON
DIRECTOR OF CIVIL DEFENSE

ROY C. PRICE, SR.
VICE DIRECTOR OF CIVIL DEFENSE

E- 6537

PHONE (808) 733-4300
FAX (808) 733-4287

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

April 3, 1998

Mr. William L. Carwile III
Director, Pacific Area Office
Federal Emergency Management Agency
Building T-112, Stop #120
Fort Shafter, Hawaii 96858-5000

Dear Mr. Carwile:

Draft Environmental Assessment: Replacement of Puna
District Beachfront Parks, Hawaii County, Hawaii,
Kilauea Lava Flow Disaster, FEMA-864-DR

Concur with the release of the subject report as a Final Environmental Assessment (EA).

State Civil Defense (SCD) recommendations provided in the Draft Report that address the addition of a 121 Db, solar powered siren into Ahalahui Park are still appropriate. It should be noted that SCD had installed sirens at two locations in or near the parks that were overrun by the 1990 Kilauea lava flow.

Please disregard the map included with our initial response to your Preliminary Draft EA. That map portrays the siren located at Pohoiki Park.

If you have any questions or require additional information, please contact Mr. Ed Teixeira, Disaster Assistance Planner, or Mr. Norman Ogasawara, Assistant Telecommunications Officer, at 733-4300.

Sincerely,

ROY C. PRICE, SR.
Vice Director of Civil Defense

Stephen K. Yamashiro
Mayor

George Yoshida
Director

Juliette M. Tulang
Deputy Director

County of Hawaii

DEPARTMENT OF PARKS AND RECREATION

25 Aupuni Street, Room 210 • Hilo, Hawaii 96720-4252
(808) 961-8311

April 29, 1998

Roy C. Price, Sr., Vice Director of Civil Defense
Hawaii State Department of Defense
3949 Diamond Head Road
Honolulu, Hawai`i 96816-4495

Dear Mr Price:

Subject: **Draft Environmental Assessment (EA) for Development of Ahalanui Park, Hawaii County, Hawaii**

As the approving agency for the EA under Chapter 343, HRS, we are responding to the comments you sent Mr William L. Carwile III, Director of the Pacific Area Office for the Federal Emergency Management Agency (FEMA), in February 1998, in response to the preliminary Draft EA for improvements at Pohoiki Beach Park, which also included comments on the Ahalanui Project.

The Hawaii County Civil Defense Agency is the entity that determines the need for new sirens and maintains or upgrades existing sirens. Your comments have been forwarded to Mr Harry Kim, Director of this agency.

Thank you for your comments.

Sincerely,

George Yoshida

cc: Mr William Carwile
Director, Pacific Area Office
Federal Emergency Management Agency (FEMA)
Building T-112, Stop 120
Fort Shafter, Hawaii 96858-5000

6536

Stephen K. Yamashiro
Mayor

Virginia Goldstein
Director

Russell Kokubun
Deputy Director

County of Hawaii

PLANNING DEPARTMENT

25 Aupuni Street, Room 109 • Hilo, Hawaii 96720-4252
(808) 961-8288 • Fax (808) 961-8742

April 3, 1998

Mr. Steve Hambalek
Federal Emergency Management Agency
Region IX, Pacific Area Office
Building T-112, Stop 120
Fort Shafter, HI 96858-5000

Dear Mr. Hambalek:

Draft Supplemental Environmental Assessment (2/16/98):
Development of Ahalanui Park, Hawaii County
FEMA-864-DR-HI
TMK: 1-4-02: 95, 06, & 61; Ahalanui, Puna, Hawaii Island

Thank you for the opportunity to comment on the draft supplemental Environmental Assessment. We have no additional comments to offer.

Sincerely,

Russell Kokubun

for VIRGINIA GOLDSTEIN
Planning Director

EML/NH:jkg
f:\wp60\earl\letters\lfema1.eml

cc: County Dept. of Parks & Recreation

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII
25 AUPUNI STREET • HILO, HAWAII 96720
TELEPHONE (808) 961-8660 • FAX (808) 961-8657

April 7, 1998

Mr. Steve Hambalek
Federal Emergency Management Agency, Region IX
Pacific Area Office, Building T-112, Stop 120
Fort Shafter, Hawaii 96858-5000

DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT
DEVELOPMENT OF AHALANUI PARK
TAX MAP KEY: 1-4-002:005, 006 & 061

Thank you for the opportunity to review the subject Draft Supplemental Environmental Assessment.

Water is available for the proposed park if water consumption is expected to be similar to Isaac Hale Beach Park.

We do have one comment to offer on the Environmental Consequences - Potable Water paragraph of Subsection 3.3.4 Infrastructure:

If the anticipated water use by the proposed park is expected to be similar to Isaac Hale Beach Park, the consumption is closer to one percent (1%) instead of one-tenth (0.1) of one percent (1%) as documented in the report.

If you have any questions, please contact Mr. Keith Okamoto of our Water Resources and Planning Branch at 961-8660.

Milton D. Pavao, P.E.
Manager

KKO:gms

"Water brings progress"

Stephen K. Yamashiro
Mayor

George Yoshida
Director

Juliette M. Tulang
Deputy Director

County of Hawaii

DEPARTMENT OF PARKS AND RECREATION

25 Aupuni Street, Room 210 • Hilo, Hawaii 96720-4252
(808) 961-8311

April 29, 1998

Milton D. Pavao, P.E., Manager
Hawaii County Department of Water Supply
25 Aupuni Street
Hilo, Hawaii 96720

Dear Mr Pavao:

Subject: **Draft Environmental Assessment (EA) for Development of Ahalanui Park, Hawaii County, Hawaii**

As the approving agency for the EA under Chapter 343, HRS, we are responding to the comments you sent Mr Steve Hambalek of the Pacific Area Office for the Federal Emergency Management Agency (FEMA), on 7 April 1998, in response to the Draft EA.

Based on clarifications received through communication with your staff, we have amended the EA to state that the consumption will be approximately 0.6%. Thank you for your review of the document.

Sincerely,

George Yoshida

cc: Mr William Carwile
Director, Pacific Area Office
Federal Emergency Management Agency (FEMA)
Building T-112, Stop 120
Fort Shafter, Hawaii 96858-5000

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

MICHAEL D. WILSON, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

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

1593

REF:HP-AMK

APR 15 1998

Mr. Sandro Amaglio
Federal Emergency Management Agency
Region IX/Building 105
Presidio of San Francisco
San Francisco, CA 94129

LOG NO: 21155
DOC NO: 9804PM09

Dear Mr. Amaglio:

SUBJECT: Draft Supplemental Environmental Assessment, Development of Ahalanui Park, Hawaii County, Hawaii, FEMA-864-DR-HI Pualaa and Pohoiki, Puna, Hawaii Island TMK: 1-3-008:016 and 033; 1-4-002: Por. 008

Thank you for your letter of March 2, 1998 and the opportunity to review and comment on the above referenced document.

We have nothing new to add to the comments in our letter of March 5, 1998 to Mr. Steve Hambalek.

Aloha,

for MICHAEL D. WILSON, Chairperson and
State Historic Preservation Officer

PM:amk

PUNA OUTDOOR CIRCLE

E- 6539

Norman Olesen
County of Hawaii
Dept. of Parks & Recreation
25 Aupuni Street
Hilo, HI 96720

George Yoshida, Director
County of Hawaii
Dept. of Parks & Recreation
25 Aupuni Street
Hilo, HI 96720

Steve Hambalek
FEMA, Region IX
Pacific Area Office
Bldg. T-112, Stop 120
Fort Shafter, HI 96858-5000

RE: DRAFT EA, AHALANUI PARK

As a member of the Mayor's Puna Parks Advisory Committee and President of the Puna Outdoor Circle, I have been active for many years in the planning of this park facility, and am listed on page 4.2 as one of the agencies contacted and mentioned on page 1-5 (the committee) as having inputted into the process. I have a long history with this issue and the many changes we have gone through in the planning.

Page 2-1; ¶2.1: For the record, the public meetings on priorities for site selections, listed the top priority as "a safe place for the children to swim". No other oceanfront property really meets this criterion.

¶2.2: It looks more and more certain now that the private property across the road (i.e., on the mauka side) will be given to the county, but most park users would still prefer to see the parking area closer to the pond, as there has been a history of car breakins. If and when the mauka parcel becomes available, the county is considering other uses for it, including camping sites.

Page 2-2; ¶2.2: Re "The lack of restroom facilities creates potential health problems, and the steep trail is hazardous." referring to Kehena. It is more than just "potential". We have already

P. O. Box 1085 ★ Pahoa ★ Hawaii, 96778 ★ (808) 965-6626

experienced a hepatitis epidemic which was directly attributable to the "bushes" alternative to restrooms. Not only is the steep trail hazardous, it is also not accessible for the physically challenged. In addition, the cliff is severely undercut, which means there is a potential for collapse.

Page 3-5; ¶3.1.3 Groundwater: re "a few farm catchment systems" is a mis-characterization. The phrase "a great many farm catchment systems" would be much more accurate.

Page 3-6; Table 3-4: The brackish pond was another cause of the high EC readings. In part, because flow had been restricted due to rocks and fallen trees, and because a previous tenant of the neighboring property had dumped dog feces in it to discourage human use. The brackish pond was cleaned subsequent to the 1992 samples listed in the table. Current readings are much lower.

Page 3-11: The paragraph referring to fertilizers and pesticides: One of the other priorities established by the town meetings, which the Parks Committee has kept in mind over the years, is that the community does not want chemicals used on the premises. Not only because of concerns of the impacts of chemicals on the pond and ocean waters, but because there are many residents who are chemically sensitive, and children run around barefoot. The Parks Committee decided long ago that NO artificial fertilizers or chemicals would be used AT ALL. In the event of a perceived need for such, the Puna Outdoor Circle would recommend safe, benign alternatives.

Page 3-12; ¶ 3.2.1 Affected environment: Heliconia has been omitted from the list. It presently lines the building on the ocean, Pohoiki and mauka sides.

Page 3-20; ¶3.3.3: The reference to "some unrecorded well sites in the coconut grove". There is only one "well", which is shown on page 2-4 and identified as a "hole". This is not worked stone, but a natural feature, which tradition states had water in the past (but no longer does) and was used for washing clothes. The plan does not include any disturbance of this feature, and the automobile barriers will serve to cordon it off from the public. It has been claimed that the coconut grove itself is a "sacred grove"; however, I was present at a meeting which included Hawaiian kupuna (elders) during which this was discussed. The trees were planted (without accompanying rituals) by John Hale and Gabriel Kealoha when the property was owned by a Caucasian. No one ever claimed it was a "sacred grove" until recently. Bernard Alani, who was the caretaker of the grove and property prior to county acquisition, scoffed when I mentioned the "sacred grove" claim. My own studies and experience (Pacific Cultural Anthropology B.A., M.A., A.B.D.) lead me to discount this claim. At any rate, since the publication of the Draft EA, David Tamura has revised the parking lot plan to remove only 10 cocos.

Civil Defense letter dated 12/19/97: Since Ahalanui Park is so close to Pohoiki, which already has a siren, it seems unnecessary to put a siren in this park. I have been at the park when the monthly test of the siren system occurs, and there is no problem at all hearing it. I think this is a needless expense.

The Puna Outdoor Circle is strongly in favor of a FONSI and the

timely development of this park, which the community has been looking forward to for a great many years.

Thank you for the opportunity to input.

Sincerely,

Rene Siracusa

Rene Siracusa
President
PUNA OUTDOOR CIRCLE

Stephen K. Yamashiro
Mayor

George Yoshida
Director

Juliette M. Tulang
Deputy Director

County of Hawaii

DEPARTMENT OF PARKS AND RECREATION
25 Aupuni Street, Room 210 • Hilo, Hawaii 96720-4252
(808) 961-8311

April 29, 1998

Rene Siracusa, President
Puna Outdoor Circle
P.O. Box 1085
Pahoa, Hawaii 96778

Dear Ms Siracusa:

Subject: **Draft Environmental Assessment (EA) for Development of Ahalanui Park, Hawaii County, Hawaii**

Thank you for your comments concerning the subject project. Below is our point-by-point response.

1. *Priorities*. Comment noted.

2. *Future Use of Current Parking Lot Area*. We understand that the owners of this and adjacent parcels have plans that may call for donation of this land to the County of Hawaii. We would welcome such an addition, but it is premature at this time to plan for uses. Our concern for using this area as parking for Ahalanui has always been one of safety for children who must cross a street where their vision (and that of drivers) is obscured by parked cars. For safety reasons, we would much prefer to have our park's patrons be able to park on-site.

3. *Restrooms and Potential Health Problems*. We agree with your assessment that Kehena is unsuitable for a developed public park, and have removed the word "potential" from the description.

4. *Farm Catchment Systems*. We have corrected this error.

5. *Bacteria Readings.* We have had verbal confirmation from Department of Health officials that current readings are much lower than those taken before the park was established. We have added this information to the EA.

6. *Fertilizers and Pesticides.* The description in the EA was based on inadequate information, and we have revised it to reflect the current policy.

7. *Heliconia.* Comment noted. The list contained on page 3-12 is not meant to be exhaustive.

8. *Cultural Value of Park Features.* Your comments have been noted and will be forwarded as part of the Final EA to the State Historic Preservation Division, which is currently reviewing the archaeological and cultural report as part of Section 106 consultation.

9. *Civil Defense Siren.* Your comments have been noted and will be forwarded as part of the Final EA to the State Office of Civil Defense.

Again, thank you for your detailed comments.

Sincerely,

George Yoshida
Director

cc: Mr William Carwile
Director, Pacific Area Office
Federal Emergency Management Agency (FEMA)
Building T-112, Stop 120
Fort Shafter, Hawaii 96858-5000

Appendix D

Letters from Hawaii State Historic Preservation Officer Regarding Phase I Archaeological Inventory Survey

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

MICHAEL D. WILSON, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

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CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION DIVISION
LAND DIVISION
STATE PARKS
WATER AND LAND DEVELOPMENT

REF:HP-AMK

JUN 3 1998

LOG NO: 21528 ✓
DOC NO: 9805PM08

Mr. Sandro Amaglio, Environmental Officer
Federal Emergency Management Agency
Region IX - Building 105
Presidio of San Francisco
San Francisco, CA 94129

Dear Mr. Amaglio:

SUBJECT: **Review of Draft Report: *"Archaeological Inventory Survey for Two Proposed Hawaii County Parks, Ahalanui and Pohoiki, Puna, Hawaii Island"* (Devereux et al 1998)**
TMK: 1-4-002:05, 06 and 061; 1-3-008:13, 16 and 1-4-002:08

Thank you for your letter of April 23, 1998 and the opportunity to review and comment on the subject report, which was prepared to comply with Section 106 of the National Historic Preservation Act as part of FEMA's plans for improvements to two parks in the Puna District on the island of Hawai`i.

Two of our Historic Preservation Division staff have reviewed the draft report. We recommend that some minor revisions occur in order for the report to fully document the survey work (see comments in Attachment 1). The archaeological inventory survey of the two parks, which included an oral interview with a local informant, appears to have been adequate in terms of identifying all of the historic properties on the two parcels. We believe that the archaeological survey by itself was adequate, finding a total of two sites, one of which was previously identified. Both of these sites have been adequately documented. We agree that both sites are significant for their information content only (criterion D of the National Register of Historic Places). Thus, we are in consensus on the significance evaluations. With the commitment to preserve both sites "as is" we believe that the proposed park improvements will have "no effect" on significant historic sites.

It is our understanding from talking to Steve Hambalek that the consultation process with Native Hawaiian organizations and individuals was undertaken by FEMA. However, no evidence of consultation was given in either the cover letter or the report. It is not clear whether or not the interview was undertaken in large part to fulfill the requirements of Section 106. This concern

needs to be addressed. It could be done as an addition to the report, or it could be presented in separate documentation. One issue might be mitigative efforts to provide the native Hawaiian fishing community with a place to store their boats within the park as they have done over time. We do need to see documentation that consultation has indeed been acceptably done, before we can fully agree that the proposed park improvements will have "no effect" on significant sites..

In sum, we recommend that the report undergo some minor revision and that documentation on consultation with native Hawaiians occur, and both these items be resubmitted. At that time, we anticipate a rapid review and likely concurrence with your agency's "no effect" determination.

If your archaeological consultants have any questions about our review comments please have them contact our Hawaii Island archaeologist, Patrick McCoy (587-0006) on archaeological matters or Nathan Napoka (587-0040; Branch Chief for History and Culture) on oral interview comments.

Aloha,

MICHAEL D. WILSON, Chairperson and
State Historic Preservation Officer

PM:amk

c. Hal Hammatt, Cultural Surveys Hawaii, Inc.

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

REF:HP-AMK

SEP -9 1998

Mr. Doug Borthwick
Cultural Surveys Hawaii
733 N. Kalaheo Ave.
Kailua, Hawaii 96734

LOG NO: 22170
DOC NO: 9809PM01

Dear Mr. Borthwick:

SUBJECT: Final Report: ***"Archaeological Inventory Survey for Two Proposed Hawaii County Parks, Ahalanui and Pohoiki, Puna, Hawaii Island"*** **(Devereux et al 1998)**
TMK: 1-4-002:05, 06 and 061; 1-3-008:13, 16 and 1-4-002:08

Thank you for your transmittal of August 31, 1998 with the replacement pages for the above referenced report.

With receipt of the replacement pages the report now meets with our approval. We believe that the archaeological inventory survey of the two park areas was adequate, finding a total of two sites--a previously recorded site (2507) in the Pohoiki Park parcel and a new site (21352) in the Ahalanui Park parcel.

We are also satisfied with the level of consultation with the Native Hawaiian Community. We received a memo from Steve Hambalek (FEMA) on September 1, 1998 detailing the various meetings that his agency conducted to address possible Native Hawaiian concerns. Our staff has also talked to members of the Native Hawaiian Community concerning this project. After these series of consultations we concur that FEMA has made a good faith attempt at consulting with the Native Hawaiian community, especially people of the Puna region. No Traditional Cultural Properties were identified in either of the two parks.

The two sites identified in the archaeological inventory survey were assessed as significant for their information content only (Criterion D). We agree with this assessment and with the recommendation to preserve both sites "as is." The next step in the historic preservation review process will be to develop a preservation plan for the two sites.

Would you please send a copy of the final report, with the replacement pages included, to Marc Smith for our Hilo office library.

Aloha,

MICHAEL D. WILSON, Chairperson and
State Historic Preservation Officer

PM:amk

c. Steve Rambalek, FEMA