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Mayor



Puna Beachfront Parks
Replacement

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April 16, 1998

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

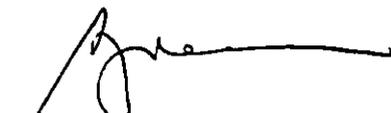
REC'D
APR 27 P 1:16
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

Dear Mr. Gill:

Subject: Final Environmental Assessment and FONSI for Replacement of Puna District Beachfront Parks

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 February 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 Draft EA and a publication notice for the *OEQC Environmental Notice*. Please publish this notice in the next edition of the *Notice*. Please call our consultant, Ron Terry, at 982-5831, if you have any questions and also to confirm the publication date. He has sent Nancy Heinrich of your staff a project description via e-mail.


George Yoshida,
Director

1998-05-08-HI-PEA Puna Beachfront
Parks Replacement

MAY 8 1998

FILE COPY

FINAL
ENVIRONMENTAL ASSESSMENT

REPLACEMENT OF
PUNA DISTRICT BEACHFRONT PARKS,
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

April 15, 1998

Prepared by

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Partnership for Response and Recovery

A Joint Venture of Dewberry & Davis and Woodward-Clyde

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Contract No. EMW-95-C-4685
FEMA-864-DR-HI

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OFFICE OF
QUALITY

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ACRONYMS

| | |
|-------|--|
| 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 |
| DOH | Department of Health |
| DLNR | Department of Land and Natural Resources |
| EA | Environmental Assessment |
| EIS | Environmental Impact Statement |
| EO | Executive Order |
| FEMA | Federal Emergency Management Agency |
| FPPA | Farmland Protection Policy Act |
| FONSI | Finding of No Significant Impact |
| gpm | gallons per minute |
| HRS | Hawaii Revised Statutes |
| LP | liquefied petroleum gas engine |
| 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 |
| PA | Public Assistance |
| 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 |

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1.1 PROJECT SETTING AND BACKGROUND

Five large volcanoes form the land mass of the 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 1990, subsequent lava flows had covered an area of approximately 30 square miles in the Puna District of Hawaii County (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).

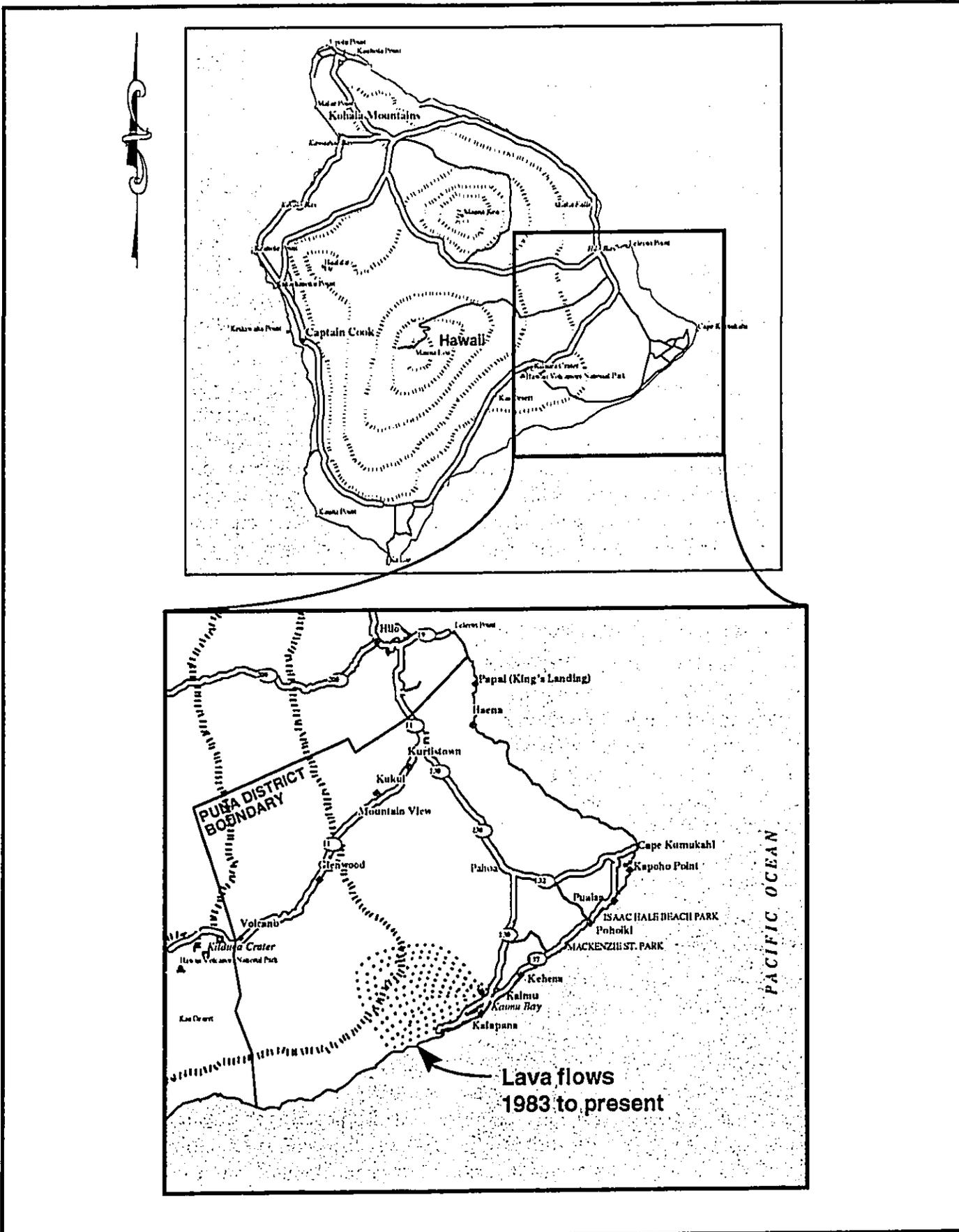
Lava flows inundated three Hawaii County parks: Harry K. Brown Park, Kalapana Beach Park, and Kalapana Black Sands Beach. All of these parks were located near Kalapana in the vicinity of Kaimu Bay. These three parks were buried under 50 to 75 feet of lava. Approximately 50 acres of county land were destroyed, 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 Hawaii County Department of Parks and Recreation (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). 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). 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).

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|---------------------------------------|--------|-----|---------|--------------------|--|
| CLIENT FEMA | | | | TITLE VICINITY MAP | |
| PROJ Pohoiki Park EA | | | | PROJ NO R953314 | |
| REVISION NO | DES BY | | | EXHIBIT 1-1 | |
| SCALE NOT TO SCALE | DR BY | LAL | 6-10-97 | | |
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 Partnership for Response and Recovery

SECTION ONE

Purpose and Need

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), 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 has 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). 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" (County of Hawaii, 1992).

To alleviate the social and economic problems created by the loss of these parks, the County of Hawaii needs to develop beachfront land to offer facilities and activities similar to those lost when the three county parks were destroyed by lava flows.

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 their actions as part of the decisionmaking process. The Council on Environmental Quality (CEQ) developed regulations that specify how Federal agencies must implement NEPA. These CEQ Regulations 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.

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SECTION ONE

Purpose and Need

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 satisfy 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 very 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.

To partially meet the purpose and need as described above, the county acquired Tax Map Key parcels 1-4-002-005, -006, and -061 in Ahalanui, Puna, Hawaii. A state 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 this land. This 1993 EA resulted in a Negative Declaration and a FONSI. A supplemental state/Federal EA for developing the parcels into a park (entitled Supplemental Environmental Assessment: Development of Ahalanui Park, Hawaii County, Hawaii) has been released for public review and comment. Impacts of these projects are described in separate EAs because the projects have independent utility. Cumulative impacts from the combined projects are described in Section 3.4.2.

1.4 PUBLIC INVOLVEMENT AND AGENCY COORDINATION

FEMA is the lead Federal agency for conducting the NEPA compliance process for the replacement of the destroyed county parks. It is the goal of the lead agency to expedite the preparation and review of NEPA documents to be responsive to the needs of the Hawaii County residents while meeting the spirit and intent of NEPA and complying with all NEPA provisions.

The specific alternatives considered in this EA are a result of an ongoing partnership between County of Hawaii officials and community members with the goal of replacing recreational resources lost to Kilauea's lava flows. It is important to acknowledge these broader efforts in order to accurately characterize the very large role the public has played in selecting a location and developing a site plan that reflects the broadest possible consensus. Several organizations including the Puna Friends of the Parks, the Mayor's Parks Advisory Committee, and fishing and surfing associations have separately and sometimes jointly created and revised proposals.

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SECTION ONE

Purpose and Need

The EA process has 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:

- March 22, 1997, meeting with surfing organization, Isaac Hale Beach Park: Members and other interested attendees cited need for adequate bathroom facilities, ample but appropriately informal parking, and better water quality.
- April 6 and 8, 1997, meeting with fishermen's association, Isaac Hale Beach Park. Officers and attendees helped refine plans to optimally accommodate the interests of this user group, whose economic and subsistence use of the area has deep historical ties.
- April 8, 1997; meeting with teachers, staff, and parents; Pahoa High School. Attendees expressed concerns about bathrooms, accessibility of parking, making facilities safe from vandals, and road improvements.
- April 8, 1997, meeting with neighbors John Hale and Bill Hale, residence adjacent to Isaac Hale Beach Park.
- April 29, 1997, general public meeting, Pahoa Community Center. Approximately 20 individuals offered input related to various aspects of the plan.

As a result of these meetings, the proposed action was developed after discussing the original site plan with local fishers, surfers, other park users, and members of the community. Generally, the original site plan was revised with input from these groups until a compromise was reached. The revised design of the proposed park has received the endorsement of most stakeholders. Changes to the original plan that occurred as a result of the public meetings include the direction of access routes and the locations of parking lots, restrooms, and the pavilion. 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.

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SECTION TWO

Description of Alternatives

2.1 ALTERNATIVES CONSIDERED AND DISMISSED

To meet the need for beachfront property to be developed into a park, the county considered many areas along the coast in Puna, including Kehena, Kalapana, Cape Kumukahi, King's Landing, Puala'a, and Pohoiki. These areas are shown in Exhibit 1-1. In each of these areas, the county considered acquiring public or private property or expanding an existing county or state park. Each of these areas was evaluated against the following criteria to identify potential locations for the site of the future park (Olesen, 1997b):

- The future park should provide safe opportunities for recreational activities previously available at the parks destroyed by Kilauea: swimming, surfing, bodyboarding, picnicking, canoeing, boating, playing volleyball, and fishing. In addition, it should have facilities for meetings and parties.
- The site should be in proximity to residents of Lower Puna and should have paved access roads.
- Land that would require acquisition by the county should not be exorbitant in cost.
- The site should have a connection to county water easily available.

The following summarizes the results of the evaluation for the areas considered:

- Kehena has an existing swimming beach, but the ocean conditions are fairly hazardous and do not provide opportunities for surfing, canoeing, or boating. Furthermore, there is insufficient open space for picnicking. County water is not available on site. Access to the beach is hazardous because of steep cliffs between the nearest road and the ocean. For these reasons, this area was dropped from further consideration.
- Beachfront property at Kalapana could be acquired for little money and is near one of the original parks. Because of displaced residents and road closures from lava flow, however, the area is now remote from most Lower Puna residents. The proximity to an active volcano and the possibility of subsidence makes the area geologically hazardous. The site would not be able to provide swimming, surfing, canoeing, or boating. Therefore, this area was not considered further.
- Similar to Kalapana, Cape Kumukahi would not be able to accommodate swimming, surfing, canoeing, or boating. In addition, it is distant from county water. Its only advantage is that it likely could be acquired inexpensively. Nonetheless, it was removed from further consideration.
- King's Landing (Papai) has a beach with some swimming potential. Problems with this area include its remote location for most lower Puna residents, its difficult access route, and its distance from existing water supply. Surfing is not possible off the beach, and canoeing and boating would be hazardous. The area was dismissed from further consideration.
- Puala'a was dropped from further consideration due its probable expense and the lack of surfing, canoeing, and boating opportunities.

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Description of Alternatives

- Pohoiki has a small bay that would provide opportunities for swimming, surfing, bodyboarding, canoeing, boating, and fishing. It would be suitable for picnicking, playing volleyball, meeting, and partying. The area is also easily accessible for most Lower Puna residents and has county water available. The Pohoiki area was retained for detailed study.

Table 2-1 illustrates how the alternative areas compared against the criteria.

TABLE 2-1
APPLICATION OF EVALUATION CRITERIA TO ALTERNATIVES

| Alternative Areas | Criteria | | | |
|-------------------|--------------------------|---------------------------|------------------|--------------------|
| | Recreational Activities? | Accessible to Lower Puna? | Reasonable Cost? | Water Connections? |
| Kehena | Few | Yes | Unknown | None |
| Kalapana | Few | No | Yes | Close |
| Cape Kumukahi | Few | No | Yes | None |
| King's Landing | Some | No | Unknown | None |
| Puala'a | Few | Yes | No | Yes |
| Pohoiki | Yes | Yes | Unknown | Yes |

Of the six areas considered, only Pohoiki has land that could be developed into a beachfront park that would meet the purpose and need, as described in Chapter 1. In addition, Pohoiki met almost all criteria, while the other areas could only meet a few criteria, if any.

Within Pohoiki, two different sites met most of the aforementioned criteria. However, one site was seriously flawed based on historic, socioeconomic, and environmental considerations. Tax Map Key parcel (TMK) 1-3-008-034, a 36-acre site north and west of Pohoiki Bay, was originally considered for acquisition and development as a park. It was discovered during preliminary research that this site had several problems including having known sensitive archaeological resources, two residences (neither of which is owned by the owner of the 36-acre parcel), and unfavorable terrain for park development. Eventually, the 36-acre site was dropped from consideration (Yamashiro, 1993).

The other site at Pohoiki which met most criteria consisted of an inland, 17-acre site and two small, adjacent oceanfront properties. This site received the "strong support of the Puna Parks Advisory Committee as well as the community at large" (Yamashiro, 1993). This site is described in more detail in Section 2.3 below.

After conducting this thorough search for suitable properties, the county determined that no other sites would meet the purpose and need, as described in Chapter 1. The County of Hawaii has formally stated that it "has no interest in pursuing other alternatives" (Olesen, 1997c). Therefore,

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SECTION TWO

Description of Alternatives

the no action alternative and the proposed Pohoiki Park site are the only alternatives considered reasonable for further analysis.

2.2 NO ACTION ALTERNATIVE

Under the no action alternative, no land would be acquired or developed for use as a beachfront park. Residents and tourists would likely continue to illegally use and overcrowd three beach areas in the Puna District: Isaac Hale Beach Park, Kehena Beach, and Kapoho.

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).

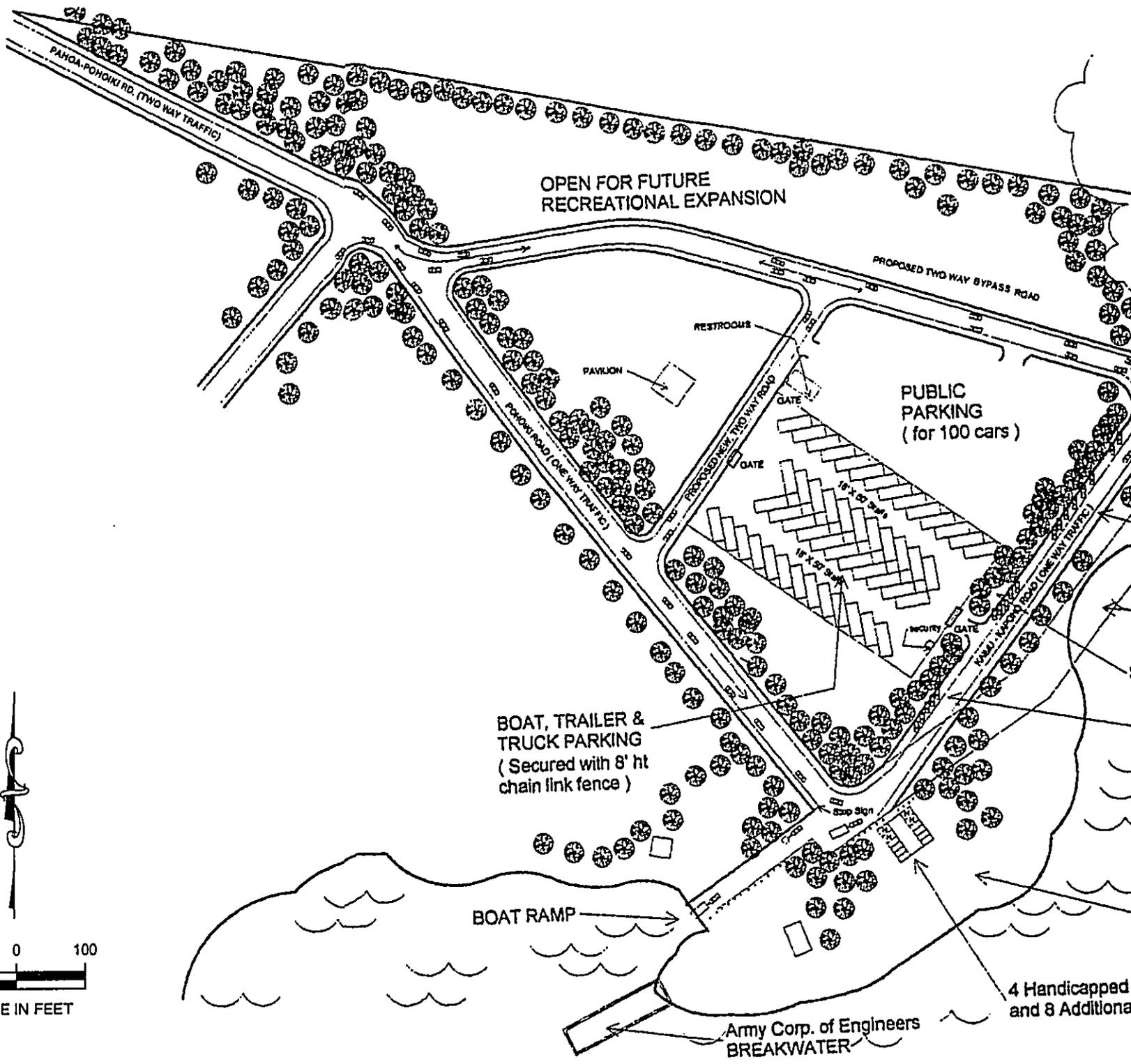
Kehena Beach is a state property consisting of an undeveloped narrow beach at the foot of a steep cliff. Beach users must park their vehicles on the cliff and hike down a steep trail to the beach. Because vehicles are not visible from the beach, the area has become a frequent target for car thefts and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

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).

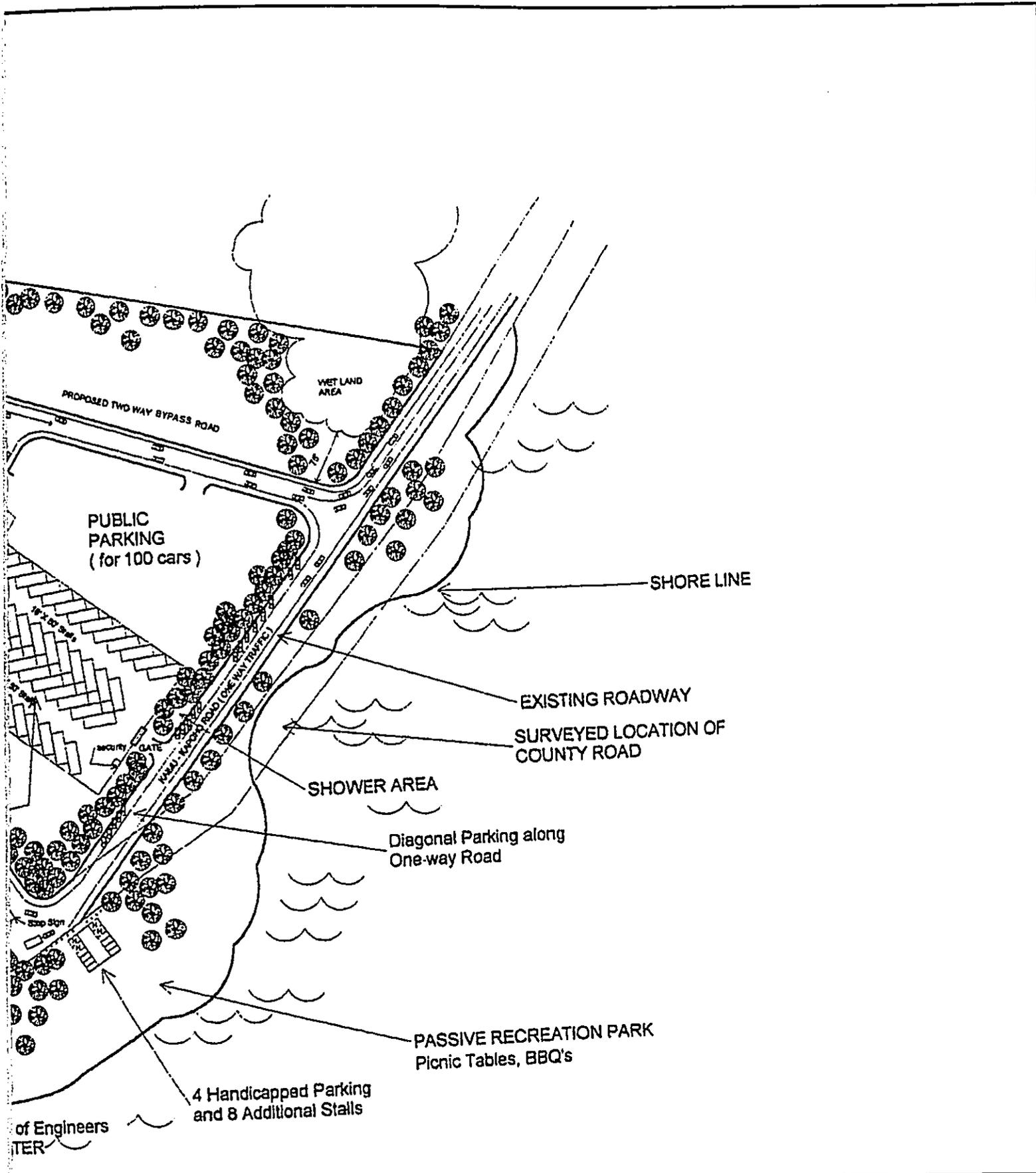
2.3 EXPANSION AND DEVELOPMENT OF POHOIKI PARK (PROPOSED ACTION)

Under the proposed action, the County of Hawaii would acquire 22 acres, including all of TMKs 1-3-008-016 and -033 and a portion of TMK 1-4-002-008 in the Puna District, Hawaii County, Hawaii. Exhibit 2-1 is a site plan of the proposed action. Currently, TMK 1-3-008-016 is a papaya orchard with a fringe of mango and kamani trees on its southeast and southwest boundaries. TMK 1-3-008-033 contains the right-of-way for Kaimu-Kapoho Road and is otherwise undeveloped. The northeastern portions of TMK 1-4-002-008 are undeveloped areas of shoreline and trees that are currently used intensively for recreation. The remainder of the parcel has kamani trees, an informal parking lot (sand, grass, and small stones), and a shack occupied as makeshift housing. These parcels would be incorporated with the existing Isaac Hale Beach Park and developed as Pohoiki Park. Implementation of this alternative would create a meeting place for the community; promote an environment for fishers, swimmers, and surfers to safely coexist; and add other necessary public facilities. The park would provide opportunities for the following activities: ocean swimming, surfing, picnicking, group meeting/partying, sunbathing, snorkeling, spearfishing, net fishing, and playing volleyball. Construction of the

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|-------------|----------------------------|----------|--------|-----|---|---------------------------|---------|
| CLIENT | FEMA | | | | TITLE | SITE PLAN OF POHOIKI PARK | |
| PROJ | Pohoiki Park EA | | | | PaRR <i>A Joint Venture of Derbyberry & Davis and Woodward-Clyde</i> Partnership for Response and Recovery | PROJNO | R953314 |
| REVISION NO | 3 | 10-31-97 | DES BY | | | EXHIBIT | 2-1 |
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SECTION TWO

Description of Alternatives

park would begin in the middle of 1998 and is expected to be finished by 2001. The total cost of the proposed action is approximately \$1.05 million, which is shared between FEMA (75 percent) and the county (25 percent).

To improve traffic circulation, a two-way bypass road would be built to provide east-west access between Kaimu-Kapoho Road and Pahoia-Pohoiki Road, as shown in Exhibit 2-1. A northeast-southwest, two-way access road would be built to access a proposed public parking lot and the existing boat ramp by connecting the proposed bypass road with the existing Pahoia-Pohoiki Road. Pahoia-Pohoiki Road between the proposed bypass road and Kaimu-Kapoho Road would be made one way in the southeast direction and improved to meet county standards for a one-way, one-lane road. Kaimu-Kapoho Road between the proposed bypass road and the existing intersection with Pahoia-Pohoiki Road would be made one way (northeast) and improved to meet county standards for a one-way, one-lane road. New roads would also be built to meet applicable county standards.

Parking for park users would be available in an informal, 80,000-square-foot parking lot in the northeastern portion of the area bordered by the proposed, two-way access road; the southeastern segment of Pahoia-Pohoiki Road; the one-way segment of Kaimu-Kapoho Road; and the eastern segment of the proposed bypass road. Access would be from either the proposed bypass road and the proposed, two-way access road. On-street parking would also be available in angled spaces along Kaimu-Kapoho Road. Parking for boats, trailers, and trucks belonging to commercial fishers would be available in a 100,000-square-foot parking lot in the southwestern portion of this area. Electrical hookups would be provided in this area. The secured parking area would be enclosed by a chain-link fence and would have a lock. Admittance would be allowed under controlled supervision by the County of Hawaii via permits. Access would be from the proposed, two-way access road and the one-way segment of Kaimu-Kapoho Road. An additional 12, unpaved public parking spaces would be designated south of the intersection of Kaimu-Kapoho Road and Pahoia-Pohoiki Road; four of these spaces would be reserved for handicapped parking.

A pavilion, public restrooms, public showers, picnic tables with shelters, a barbecue grill with a roof, a volleyball court, a lifeguard stand, and a utility shed would be constructed on site. Potable water lines would be extended from Isaac Hale Beach Park to the proposed restrooms and showers. A leach field for the restrooms would be sited near the parking lots. A wash rack would be sited in the boat/trailer/truck parking area for cleaning corrosive salt from boats. The saline effluent would be diluted and pumped to the septic system. Photovoltaic cells and a generator would provide electric power for lighting, the wastewater pump, and electrical hookups. A liquefied petroleum gas engine (LP) would power the generator. The electric generating system would be built adjacent to the pavilion.

2.4 SUMMARY OF ENVIRONMENTAL IMPACTS

The potential impacts of implementing each 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

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SECTION TWO

Description of Alternatives

provided in Chapter 3. Table 2-2 summarizes the potential impacts associated with both of the alternatives evaluated in this EA, including brief descriptions of resources and issues not discussed in Chapter 3.

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SECTION TWO

Description of Alternatives

**TABLE 2-2
IMPACT SUMMARY MATRIX**

| Description | No Action Alternative | Expansion and Development of Pohoiki Park (Proposed Action) |
|-----------------------------------|---|---|
| A. Description of Alternative | No property would be acquired or developed for park use. Beach users would continue to use Isaac Hale Beach Park, Kehena Beach, and the Kapoho shoreline. | The county would acquire 22 acres and develop the property into a beachfront park, as shown in Exhibit 2-1. Facilities would include parking, restrooms, showers, a pavilion, and picnic areas. |
| B. Potential Impacts | | |
| Soils | Adverse impact: soil loss from agricultural practices. | Beneficial impact: decreased soil loss from land use changes. |
| Geology | No impact. | 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 and agricultural practices. | Beneficial impact: reduced contamination from septic system; decreased pollution from parking lot set-back; new structures to conform with National Flood Insurance Program. |
| Plant Communities and Wildlife | Adverse impact: marine life potentially harmed by human wastes and other pollutants. | Negligible impact: displacement of feral wildlife; removal of alien plants; minimization of disturbance to hedgerows. |
| Threatened and Endangered Species | Adverse impact: potential continued contamination of protected shrimp. | No impact: no threatened or endangered species known to exist on the site. |

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SECTION TWO

Description of Alternatives

**TABLE 2-2 (continued)
IMPACT SUMMARY MATRIX**

| Description | No Action Alternative | Expansion and Development of Pohoiki Park (Proposed Action) |
|--|--|---|
| Wetlands | Adverse impact: continued contamination of potential jurisdictional wetland. | Beneficial impact: buffer maintained between bypass road and potential jurisdictional wetland. |
| Land Use and Zoning | No impact. | No impact: proposed land uses conform with state and county zoning. |
| 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. | Mitigated impact: potential archaeological resources and traditional cultural properties; mitigation through survey and compliance with the National Historic Preservation Act. |
| Infrastructure | Adverse impact: continued lack of adequate restroom facilities. | Beneficial impact: septic system designed and constructed to Department of Health requirements. |
| 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 | Adverse impact: parking area next to shore. | Negligible impact: mature hedgerow to remain along roadways. |

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SECTION THREE **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 and the existing beaches 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. Soils underlying the proposed Pohoiki Park site and Kehena Beach include Malama extremely stony muck and Opihikao extremely rocky muck. Isaac Hale Beach Park is underlain by Opihikao extremely rocky muck. Soils lying beneath the Kapoho area include `a`a lava flows and pahoehoe lava flows (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 describes these soils as having severe limitations for septic tank filter fields because of the shallow depths above lava. `A`a and pahoehoe lava flows have practically no soil covering and are bare of vegetation except for mosses and lichens. Ferns and small ohia trees have also been known to develop on `a`a lava (SCS, 1973).

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, the papaya field on TMK 1-3-008-016 would likely continue to be planted and harvested. Papaya farming typically includes the use of bulldozers to clear areas of ohia trees and to smooth and shape the earth. Despite the fact that the soils underlying this parcel only have a slight erosion hazard, these agricultural practices cause soil loss. Since TMK 1-3-008-016 is currently out of production, clearing and grading of the parcel are expected to occur in the future, causing soil loss from the site. In addition to soil loss during planting, soil loss would occur during the growth and development the papaya crop due to surface runoff. Other impacts under the

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SECTION THREE Affected Environment and Environmental Consequences

no action alternative include slight erosion continuing at Kehena Beach where beach visitors must hike down a steep cliff to reach the shore.

Some soil displacement would result from implementing the proposed action. 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, the proposed site would be revegetated. The triangular area surrounding the proposed pavilion would likely be a maintained lawn. The area north of the proposed bypass road would likely be less maintained—perhaps more of a grassy meadow. Soil loss on a well-maintained lawn or a meadow in good condition is approximately half that of cultivated land (County of Hawaii Department of Planning, 1992). Therefore, implementation of the proposed action would result in less soil loss than would occur under the no action alternative.

To comply with FPPA, FEMA prepared a Farmland Conversion Impact Rating form in consultation with the NRCS (Nakamura, 1997; Appendix B). A Land Evaluation/Site Assessment was used to determine the total acreage of important farmland to be directly converted to park under the proposed action and the relative impact of the conversion compared to the entire county. Of the 21.5 acres proposed for conversion under the proposed action 15.7 acres are considered important. The total site assessment was 135 points out of a total 260. The FPPA recommends that sites receiving scores of less than 160 should be given minimal levels of protection and no additional sites need to be evaluated. Therefore, the proposed action complies with FPPA. Because there is no Federal action under the no action alternative, there is no requirement for FPPA compliance.

3.1.2 Geology

Affected Environment

Geomorphology and Topography

The Island of Hawaii is of volcanic origin, and its soil and rock are the result of volcanism. Kapoho and Kehena are underlain by lava of various ages. Most of the subject property is underlain by 'a'a lava. An area approximately 200 feet wide, which runs the length of the proposed site, is underlain by pahoehoe lava according to the soil survey (SCS, 1973). Both lava types range in age from 450-700 years old. Geomorphology of the land is a result of lava flow and weathering of the rock since its emplacement. The relative youth of the landscape of the subject property is indicated by the lack of stream channels.

Relief ranges approximately from 2 percent slope over the makai half of the proposed site to 8 percent slope on the *mauka* (inland) end of the land parcel, and the site generally slopes toward the south-southeast toward the ocean. Elevation on the proposed park site approximately ranges from 0 to 60 feet above mean sea level.

Geologic Hazards

The proposed project area is approximately 2 miles makai from 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

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SECTION THREE **Affected Environment and Environmental Consequences**

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 proposed project area and sites under the no action alternative as Lava-Flow Hazard Zone 2 on a scale of increasing hazard from 9 to 1 (Exhibit 3-1). Lava-Flow Hazard Zone 2 is adjacent to and down slope of Zone 1 (summits and rift zones of active volcanoes). Lava flows in this area are 400-750 years old. 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 (Exhibit 3-1). As of October 2, 1997, lava flows extended approximately 7 miles makai of the vent and in an area approximately 18 miles southwest of the project area. The lava flow of 1955 came within 1.4 miles of the project area.

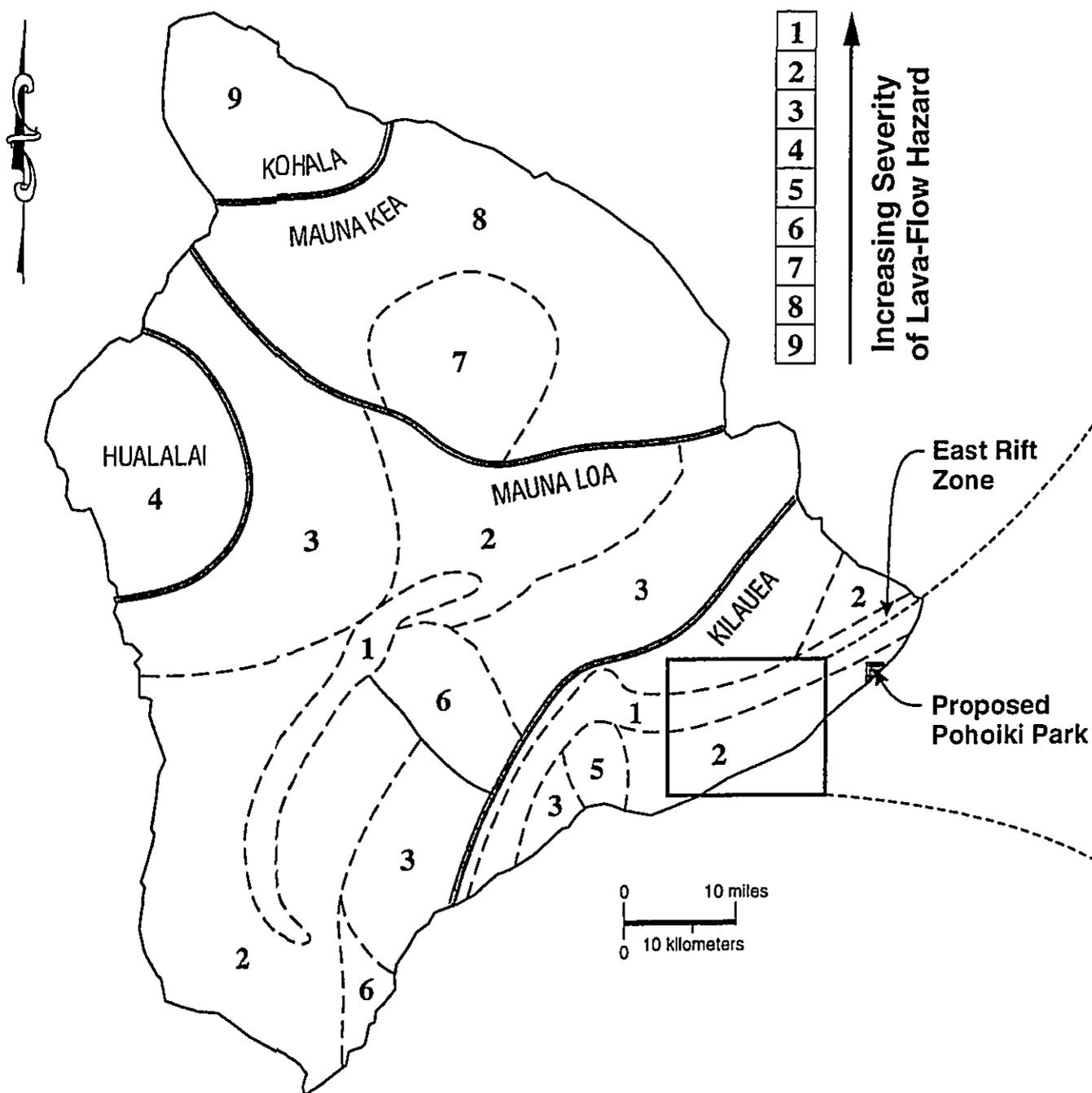
Earthquakes on Big Island are commonly associated with the movement of molten rock within the earth as it makes its way to the surface. Few of these tremors are strong enough to be felt at the surface. Major earthquakes are usually the result of movement along faults. Over the past 70 years, seven earthquakes with magnitudes 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.

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 proposed 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. Tsunami warning is currently provided by an emergency siren located at Isaac Hale Beach Park.

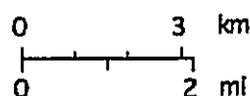
Subsidence or ground sinking occurs on the Island of Hawaii in several ways. The entire island is slowly sinking due to its own weight on the oceanic crust. This regional subsidence was measured at Hilo at a rate of approximately 0.14 inches per year. At the same time, the Kapoho area north of the proposed site 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. The area of the proposed project 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). That rate is about 6 times greater than the regional subsidence rate of approximately 0.14 inches per year (Swanson, 1997a; Appendix B).

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Lava-Flow Hazard Zone Map Island of Hawaii



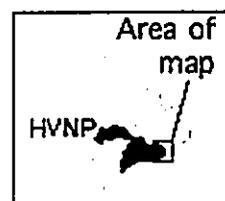
Distribution of lava flows
Pu'u 'O'o—Kupainaha
1983-1997, east rift zone



Pu'u 'O'o crater

Napau Crater

Episode 54 flows,
January 1997



2100'
PULAMA PAI
60'

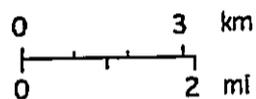
Chain of Craters
Road

Based on Wright, T.L. et al. 1992, Map Showing Lava-Flow Hazard Zones, Island of Hawaii,
U.S. Geological Survey, Miscellaneous Field Studies Map MF-2193.

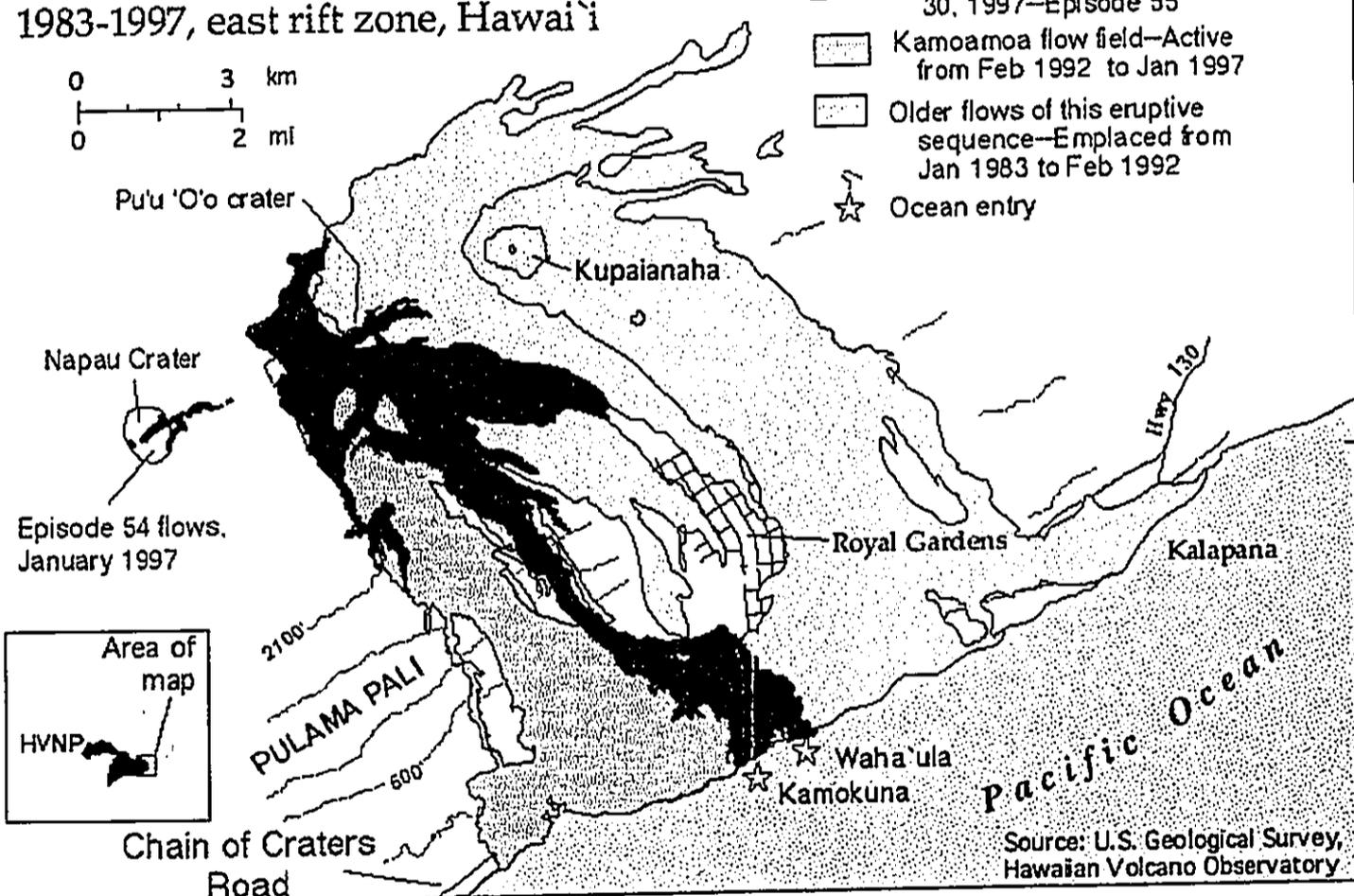
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| SCALE | AS SHOWN |
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Distribution of lava flows from
Pu'u 'O'o—Kupainaha eruptive episodes,
1983-1997, east rift zone, Hawai'i

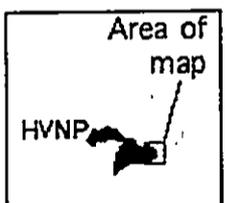
As of October 2, 1997:



- Flows emplaced March 28-September 30, 1997—Episode 55
- Kamoamoa flow field—Active from Feb 1992 to Jan 1997
- Older flows of this eruptive sequence—Emplaced from Jan 1983 to Feb 1992
- Ocean entry



Episode 54 flows,
January 1997



Source: U.S. Geological Survey,
Hawaiian Volcano Observatory

| | | | | | | | |
|----------------------|---------------------------------|---------|--------|---------------------|---------|--|-------------|
| CLIENT FEMA | | | | TITLE LAVA-FLOW MAP | | | |
| PROJ Pohoiki Park EA | | | | PROJ NO R953314 | | | |
| REVISION NO | 1 | 6-20-97 | DES BY | | | | EXHIBIT 3-1 |
| SCALE | AS SHOWN | | OR BY | LAL | 6-13-97 | | |
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A Joint Venture of Drabery & Davis and Wickham-Clyde
Partnership for Response and Recovery

SECTION THREE **Affected Environment and Environmental Consequences**

Environmental Consequences

Geomorphology and Topography

A minimal amount of grading would be necessary for the proposed action. Cutting and leveling of the ground surface for the restrooms would be necessary. Installation of the leach field would require excavation and backfilling to previous grade, as discussed in Section 3.1.1. No impacts would occur to topography or geomorphology as a result of the no action alternative.

Geologic Hazards

Based upon the volcano's recent history of eruption and geology, the risk to users of the alternative beaches 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 an eruption were similar to those of recent history, then the distances between the rift zone and either the existing beaches or the proposed site (2 miles) would allow for several days warning of lava flow and evacuation of the area (Swanson, 1997b). Under the no action alternative, Kehena could be evacuated toward either the northeast or the southwest on the Kaimu-Kapoho Road, and Kapoho could be evacuated along one road toward the northwest. Evacuation from a park at Pohoiki could occur on any of the three roads out of the area. It is very unlikely that the eruption would be of the magnitude to block all of the roads.

To reduce the risk of casualties and damages from earthquake, all buildings in the 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.

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 and events in the Aleutian Islands, 4.5 hours, providing sufficient time for evacuation of the 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. A park at Pohoiki, under the proposed action, would have lifeguards on the beach. Sudden movement along faults close to Hawaii are unpredictable, would allow for only minutes of warning time, and evacuation would be very unlikely. 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 in its existing location.

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

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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 a few farm catchment systems, deep groundwater wells are Puna's only water source. Shoreline areas in Pohoiki and Kehena are 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). At the proposed Pohoiki Park site and the existing beaches, groundwater is expected to occur at or just above mean sea level.

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 surface waters, excepting the ocean, are known to exist at the proposed site or existing beaches. No streams, flowing or intermittent, exist on the proposed site. A small tidal area was discovered in the northeast corner of the site. Because this area may be jurisdictional wetlands, it is discussed in more detail in Section 3.2.3.

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Floodplain

Approximately half of the proposed site is located in Zone VE, which represents the 100-year coastal, high hazard floodplain, incorporating storm surges. A small portion 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), 19 and 20 feet at the proposed site, is the estimated elevation of the 100-year flood based on the National Geodetic Vertical Datum of 1929 (NGVD).

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 base elevations of 20 feet NGVD. Most beachfront areas of Kapoho are also within Zone VE. Base elevations of Kapoho beaches are 16 feet NGVD. The beach at Kehena is not mapped in the floodplain but is described as an area of minimal tsunami inundation.

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 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

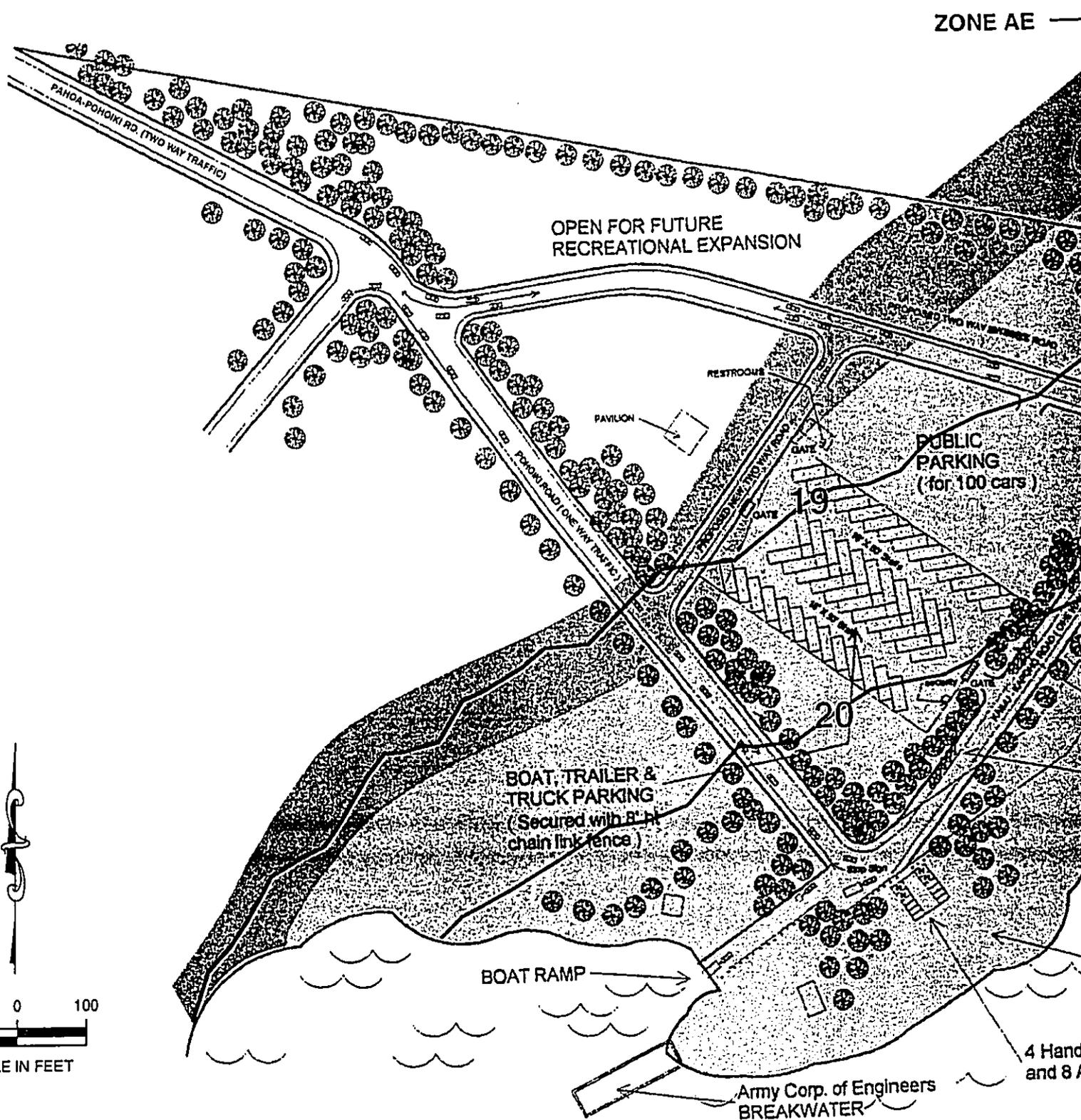
Groundwater

Under both alternatives, pollutants from human waste and agricultural practices have the potential to reach groundwater. 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

Under the no action alternative, Kapoho and Kehena would continue to be used as recreational destinations, even though no restrooms are available. Furthermore, the portable toilets at Isaac Hale Beach Park would continue to be inadequate for the park's volume. Surface runoff is likely to carry fecal coliform, enterococci, and other pathogens from human wastes that are not

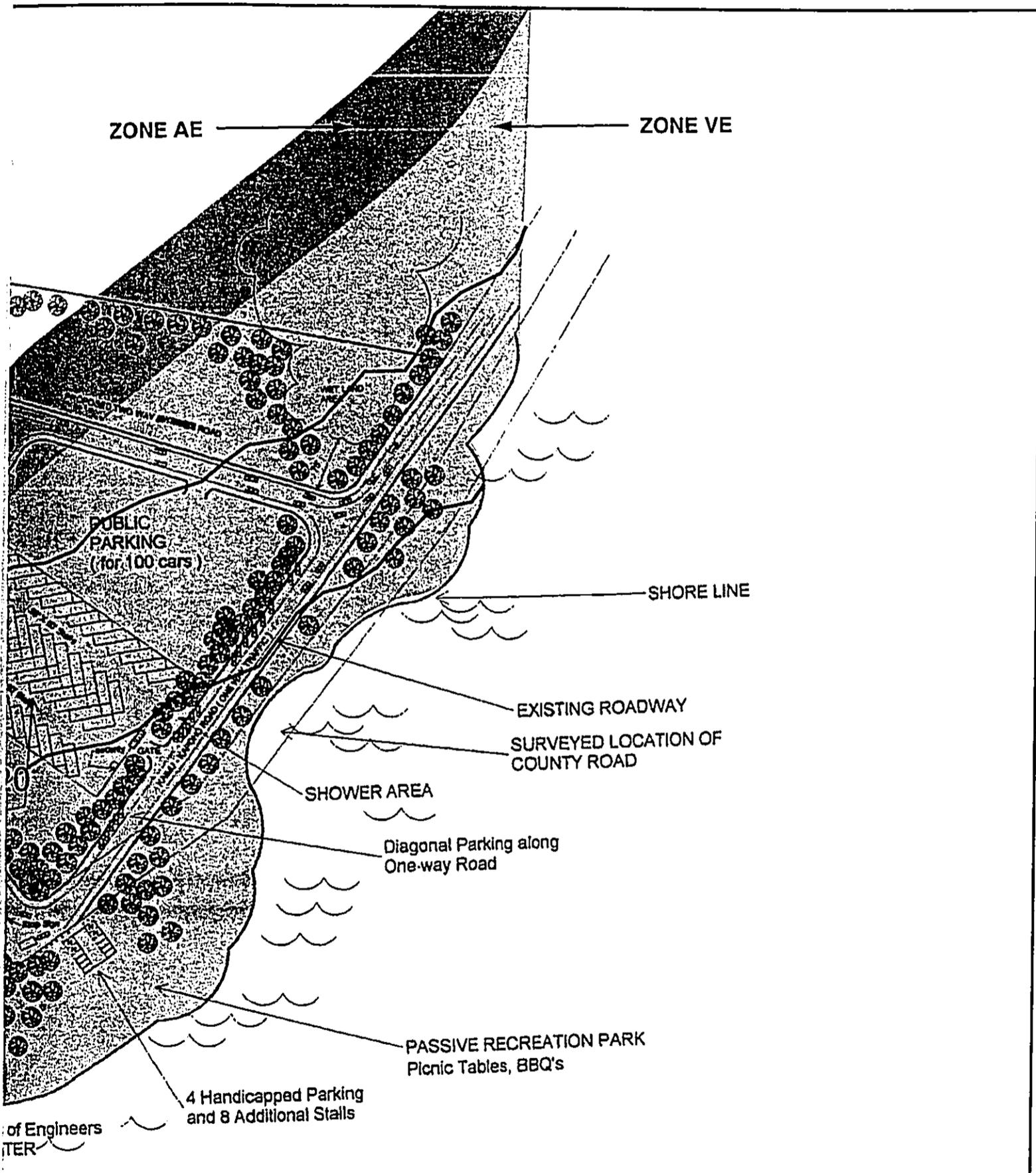
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SOURCES:

1. Base map from County of Hawaii Parks & Recreation Department, "Pohoiki Park Enhancement, FEMA"
2. Flood information adapted from FEMA, Flood Insurance Rate Map, Hawaii County, HI, Revised 9/16/88

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| PROJ | Pohoiki Park |
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|----------------------|-----------------------------------|----------|--------|---|----------|---------------------------------------|---------|
| CLIENT FEMA | | | | TITLE FLOODPLAIN BOUNDARIES, POHOIKI PARK | | | |
| PROJ Pohoiki Park EA | | | | PaRR <small>A Joint Venture of Dentberry & Davis and Woodward-Clyde</small> | | | |
| REVISION NO | 3 | 10-31-97 | DES BY | LAL | 6-17-97 | PROJ NO | R953314 |
| SCALE | AS SHOWN | | DR BY | LAL | 6-17-97 | EXHIBIT | 3-2 |
| FILE | GTB3\DRAWINGS\R953314\BOUND-8.CDR | | CHK BY | MG | 10-31-97 | Partnership for Response and Recovery | |

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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 fecal coliform and enterococci (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 occur during planting of the papaya field on TMK 0-3-008-016 due to bull-dozing and grading. Soil loss would continue during the growth and development of the papaya crop due to surface runoff. Papaya fields are typically treated with herbicides, pesticides, and fertilizers on a periodic basis (SCS, 1973). The topography of the parcel, its proximity to the ocean, the rapid surface runoff associated with cultivated land, and the volume of rain on Hawaii's east coast suggest that eroded soils and affiliated contaminants would likely reach coastal waters makai of the papaya field and the wetland area in the northeast corner of this parcel.

As discussed in Section 3.1.1, BMPs and revegetation occurring as part of the proposed action would result in less soil loss, and hence less sedimentation in surface waters, than would occur for cultivated land.

The proposed action would increase the amount of impervious surfaces on the proposed park site through construction of roads, parking lots, restrooms, showers, and the pavilion. Approximately 8 acres would be transformed from cultivated land to impervious surface. This land use change would increase surface runoff by approximately 50 percent for these areas. On the other hand, approximately 10 acres would be revegetated and maintained (as described in Section 3.1.1), thereby producing approximately half the surface runoff as cultivated land over the same area (County of Hawaii Department of Planning, 1992). Considering both of these factors, implementation of the proposed action would likely produce surface runoff quantities equal to or less than maintaining the status quo. In addition, parking for fishermen and park users would be moved at least 200 feet mauka under the proposed action. This distance would allow some dispersion of vehicle contaminants before reaching surface water.

The proposed action includes placement of a septic system on TMK 1-3-008-016. The leach field would be sited between the public parking and the boat/trailer/truck parking. The septic system would be designed by a registered engineer and permitted by the State of Hawaii Department of Health (DOH). The design, construction, and maintenance of the septic system would meet all appropriate DOH regulations. In particular, lava would be excavated to a 3-foot depth below the leach field and soil with appropriate properties would be used for backfill. The leach field would not be sited within 3 feet of groundwater. Under these circumstances, implementation of the proposed action would be a beneficial impact to surface water compared to the current situation.

Floodplain

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

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SECTION THREE **Affected Environment and Environmental Consequences**

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 septic system, parking lots, showers, and picnic tables within Zone VE. The restrooms and showers would be considered regulated "structures" under the NFIP, and construction of these structures and public notification of decisions regarding their construction would therefore comply with EO 11988 and the NFIP and its implementing regulations. In particular, the restrooms and showers would be elevated on pilings or columns so that the floors of the facilities would be above the BFE and the foundations and the structures would be anchored to resist flotation, collapse, or lateral movement. Furthermore, the spaces below the facilities' lowest floors would be constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening. The septic system would be designed to withstand hydrostatic flood forces from the 100-year flood. Because the flooding is coastal in nature, siting these structures in the 100-year floodplain would have negligible impact on the BFE and the size of the floodplain.

3.2 BIOLOGICAL ENVIRONMENT

3.2.1 Plant Communities and Wildlife

Affected Environment

Most of the subject property (TMKs 1-3-008-016 and -033) consists of a papaya field bordered on two sides by wide "hedgerows" of woodland. These hedgerows act as buffers between the field and roads and are a major landscape feature of the locality.

The papaya field was not in production at the time of a field survey, and the papaya trees had been cleared away with a bulldozer. The surface of the field is approximately 50 percent barren lava rubble left from the bulldozing and about 50 percent lightly vegetated by weeds and grasses. Among the more common of these herbaceous plants are molassesgrass (*Melinis minutiflora*), a sedge (*Pycnus polystachyos*), and wild bean (*Macroptilium lathyroides*). Indigo (*Indigofera suffruticosa*) and butterfly bush (*Buddleia asiatica*) are common small shrubs invading the field.

The hedgerows along Pahoia-Pohoiki Road and Kaimu-Kapoho Road are up to 100 feet wide. They are made up of mature trees of a variety of species and may be up to 50 feet high. The hedgerow along Pahoia-Pohoiki Road is dominated by trees of mango (*Mangifera indica*), kamani (*Calophyllum inophyllum*), melochia (*Melochia umbellata*), noni (*Morinda citrifolia*), and hala (*Pandanus tectorius*). Beneath the trees, much of the surface is litter-covered with few plants.

The hedgerow along the Kaimu-Kapoho Road is similar to the vegetation just described. Here, the dominant tree species are kamani, hala, and milo (*Thespesia populnea*), an indigenous coastal tree. The understory includes stands of another common indigenous plant, naupaka kahakai (*Scaevola sericea*). The land makai of Kaimu-Kapoho Road is a narrow strip with clumps of trees of the same species named above. This strip appears to receive heavy use from beach-users and has no ground-cover vegetation.

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SECTION THREE Affected Environment and Environmental Consequences

Forty-three common or frequent species of vascular plants were identified within the project area. Only one endemic Hawaiian plant was found, ohia-lehua; this common tree is widespread and a dominant species on much of the Island of Hawaii. Nine indigenous plants were recorded, mostly common coastal plants including naupaka kahakai, milo, hala, and coconut (Cocos nucifera). Others are common weedy species such as morning glory (Ipomoea indica) or Pycneus. The remaining thirty-three plants recorded are alien species, i.e. introduced to Hawaii by humans.

No mammals were observed within the proposed project area during the field study. It is probable that feral dogs and cats and introduced mongoose, rats, and mice utilize the project site. Feral pigs (Sus scrofa) may also occur on the site at times.

Only a few species of alien birds were observed within the project area during the field survey. These included Japanese white-eye (Zosterops japonicus), common myna (Acridotheres tristis), northern cardinal (Cardinalis cardinalis), spotted dove (Streptopelia chinensis), and house finch (Carpodacus mexicanus).

Environmental Consequences

Continued high volume usage of the three beaches under the no action alternative would negatively affect vegetation from vehicular and foot traffic. Hedgerows, along both roads giving access to the proposed park, are a conspicuous landscape feature. The trees closely border and overhang the roads. The roads have a "tree-lined" aspect not often found. The aesthetic and social qualities of these hedgerows are an important natural feature of the project area, and protection of the hedgerows would be a part of the proposed action, first for their aesthetic value, but also for ecosystem values they may provide. These include windbreaks, shade, and animal habitat. Removal of trees or other alterations to provide access on to the site would be kept to the minimum required.

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.

Development of the proposed park would have a minor direct impact on the animals described for the site. All are alien species that have effectively colonized the island, usually to the detriment of native species, and are not protected under wildlife laws. Reduction of effluent flow from existing beach facilities would have a positive effect on marine life.

3.2.2 Threatened and Endangered Species

Affected Environment

No plant species listed by the U.S. Fish and Wildlife Service (USFWS) as threatened or endangered, proposed or candidate species, or "species of concern" were found within the project area. No state protected plant species were identified on the site (Giffin, 1997; Appendix B). It

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is highly unlikely that any rare plants would occur on such a heavily disturbed site as the papaya field or in the hedgerows which are dominated by introduced species.

The State of Hawaii Division of Forestry and Wildlife indicated in their letter of May 8, 1997, that anchialine ponds occur on or adjacent to the proposed site (Giffin, 1997; Appendix B). They may also occur at the existing beaches at Kapoho and Kehena. Anchialine ponds may contain Metabetaeus lohena, a shrimp that is listed as a species of concern by the USFWS (Harper, 1997; Appendix B).

No endangered or otherwise rare bird or mammal species were observed within the project site. The area is not included within critical habitat for protected species (Giffin, 1997; Appendix B). Data base records provided by the State of Hawaii Division of Forestry and Wildlife indicate that the Hawaiian hawk, or 'Io (Buteo solitarius), was seen in the project area in 1967. It is listed as endangered by the USFWS (1990b). The Hawaiian bat (Lasiurus cinereus semotus) is an endangered species that may occur in the vicinity. Both of these species are relatively non-selective in the type of habitat required for nesting and foraging. Both utilize alien as well as native vegetation and are well-adapted to human altered landscapes. The hedgerows of the project area could provide roosting or nesting habitat for either or both species.

The 'A'o (Newell's shearwater, Puffinus auricularis newelli), which is a listed threatened species (Federal Register, 1990a), is a night-flying seabird recently detected flying across the coastline at nearby Kapoho. The 'A'o 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 'A'o 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, runoff contaminated with human waste would continue to flow into anchialine ponds. Furthermore, runoff from papaya production, if it were to resume under the no action alternative, would flow into anchialine ponds. As discussed in Section 3.1.2, runoff from the field could affect coastal waters, thus impacting protected species inhabiting anchialine ponds.

No direct impact to any anchialine ponds on or adjacent to the subject property would result from the proposed action because no development is proposed in these areas. Impacts from groundwater contamination would be minimized by design and construction of an effective wastewater treatment system for the park. No impacts to protected plant species are expected from implementing the proposed action since there are no known plant species on the proposed site. Clearing and grading the proposed site would not affect protected bats or hawks. Disturbance of the hedgerows would be minimized; it would be limited to clearance for access to the site. As an extra precaution if bats or hawks are seen during site preparation, any land-clearing activity would be halted and personnel of the USFWS and the State of Hawaii Division of Forestry and Wildlife would be notified.

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To protect night-flying seabirds, such as the Newell's shearwater, all lighting associated with the proposed action would be shielded and oriented downward to prevent light being directed upward, in compliance with the County of Hawaii Lighting Code. Since predators of the Newell's shearwater are likely to exist at the proposed site, it is unlikely that the project area provides useful nesting sites. Therefore, no impacts would occur to the 'A'o from implementation of the proposed action.

3.2.3 Wetlands

Affected Environment

The National Wetland Inventory map does not depict wetlands in the area of the existing beaches or the proposed site. No streams, flowing or intermittent, occur on the proposed project site. The wooded area in the northeastern corner of the site is flooded periodically by saltwater overwash of Kaimu-Kapoho Road. Its dominant vegetation is milo trees, and it is likely a wetland. Tidal wetlands and anchialine ponds may occur on the ocean side of Kaimu-Kapoho Road.

The papaya field that covers most of the project area has a surface of very coarsely crushed lava with little soil. This substrate appears to be excessively drained. No vegetation, soil, or hydrological indicators of regulatory wetlands were found within this portion of the site. Similarly, the hedgerows along the roads appear well-drained and lack wetland indicators.

Environmental Consequences

Under the no action alternative, runoff contaminated with human waste would continue to flow into any anchialine ponds adjacent to Isaac Hale Beach Park, Kapoho, and Kehena. Furthermore, runoff from papaya production, if it were to resume under the no action alternative, would flow into anchialine ponds.

The proposed action would avoid direct impacts to the wetland in the northeastern corner of the subject property; a 75-foot wide buffer area would surround the wetland on the parcel. The tidal wetlands and anchialine ponds that may occur on the ocean side of Kaimu-Kapoho Road would not be impacted as a result of the proposed action because no development is proposed in the immediate vicinity of these ponds.

3.3 SOCIAL AND CULTURAL ENVIRONMENT

3.3.1 Land Use and Zoning

Affected Environment

Land use in the area to be acquired consists of agriculture, with some vacant, forested areas. The large majority of the area in the parcels to be acquired is classified in the State Land Use

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Agricultural District. The shoreline parcel (TMK 1-4-002-008) and an approximately 0.25 acre sliver of TMK 1-3-008-016 adjacent to the Paho-Pohoiki Road are within the Conservation District. Exhibit 3-3 shows the the Land Use District Boundaries for the project site. County zoning varies from A-1a (Agriculture, minimum lot size 1 acre) for TMK 1-3-008-16 and -33 to Open for the shoreline parcel (1-4-002-008). 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 (Kapoho Beach and Vacationland subdivisions) are zoned single-family residential by the county and are within the state's Urban District. Shoreline areas between these subdivisions and the proposed park site are generally designated Conservation and Agriculture by the State Land Use Commission and A-1a by the county.

Neighboring land use is similar. Zoning and Land Use Districts for surrounding properties are mostly Agricultural. Land makai of the theoretical position of the Kaimu-Kapoho Road in surrounding parcels is zoned Conservation.

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 acquisition and development under the proposed action are within the SMA, and therefore subject to compliance with the state CZM program. In addition, actions must comply with the requirements of the county's CZM program, including the SMA and the Shoreline Setback Area.

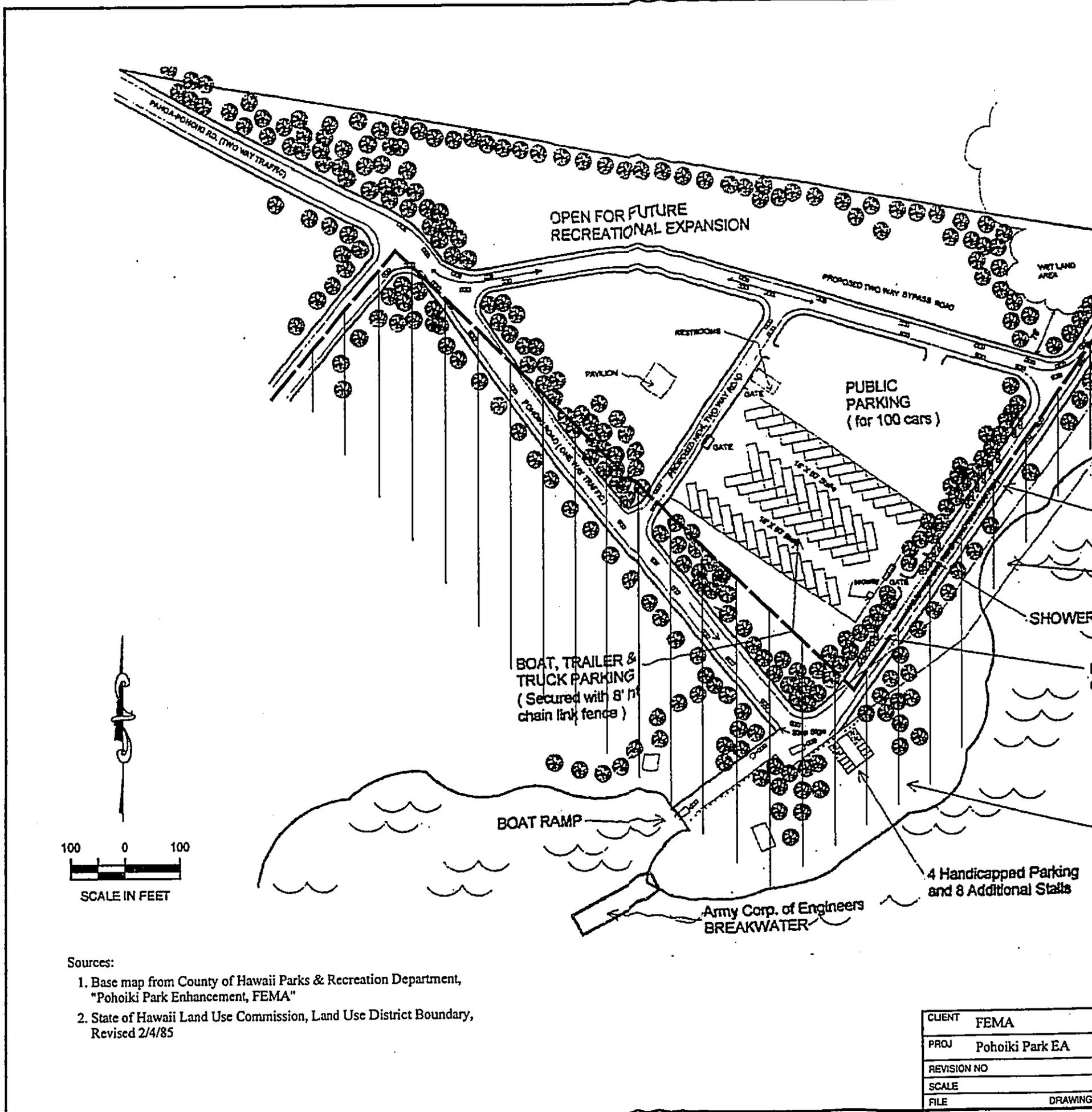
Environmental Consequences

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.

Parks are permitted land uses within these districts and zoning categories. No Conservation District Use Permit is anticipated because no construction activities, structures, or disturbance would occur within areas classified Conservation. 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. The proposed action essentially would relocate uses away from the shoreline, which would then support only passive activities, and thus impacts to shoreline areas would be mostly beneficial. Impacts upon adjacent land uses would be minimal. 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. No development would occur within the Shoreline Setback Area; therefore no shoreline setback variance would be required.

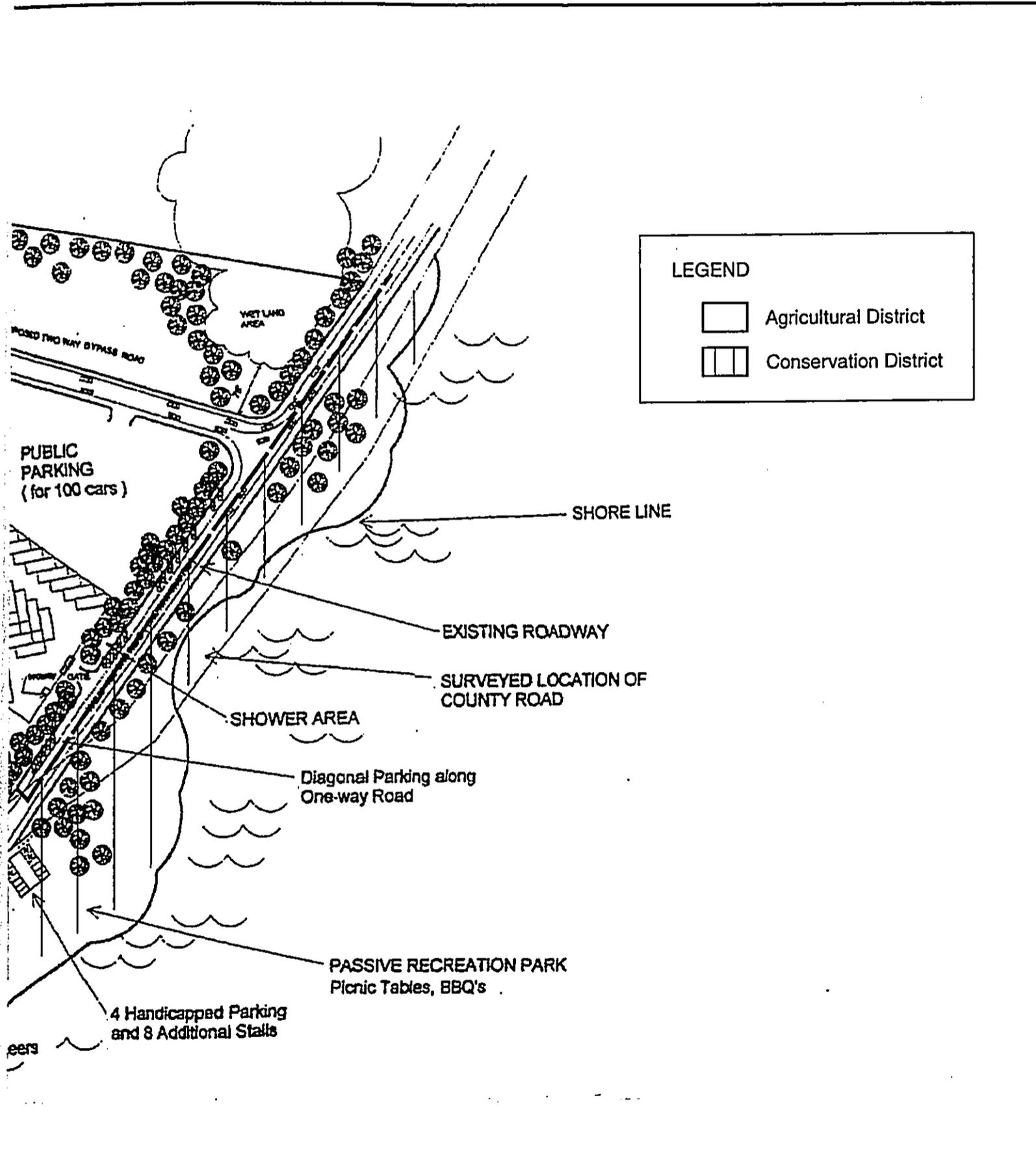
The project would convert approximately 21.5 acres of farmland to park land, but this loss would be negligible in terms of the large quantity of agricultural land in the area, including several thousand acres of papaya.

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- Sources:
1. Base map from County of Hawaii Parks & Recreation Department, "Pohoiki Park Enhancement, FEMA"
 2. State of Hawaii Land Use Commission, Land Use District Boundary, Revised 2/4/85

| | |
|-------------|-----------------|
| CLIENT | FEMA |
| PROJ | Pohoiki Park EA |
| REVISION NO | |
| SCALE | |
| FILE | DRAWING |



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|---------------------------|-----------|--|--|---------|--|--|
| CLIENT FEMA | | | | | TITLE STATE LAND USE, POHOIKI PARK | |
| PROJ Pohoiki Park EA | | | | | PROJ NO R953314 | |
| REVISION NO | DES BY | | | | PaRR <small>A Joint Venture of Dewberry & Davis and Woodward-Clyde</small> | |
| SCALE AS SHOWN | DR BY SM | | | 4-10-98 | EXHIBIT 3-3 | |
| FILE DRAWING/R953314/FH.3 | CHK BY MG | | | 4-10-98 | Partnership for Response and Recovery | |

SECTION THREE **Affected Environment and Environmental Consequences**

3.3.2 Socioeconomics and Environmental Justice

Affected Environment

The Lower Puna area, well-populated by Hawaiians before 1800, was nearly abandoned during the 19th century. Extensive cattle raising and scattered agriculture dominated land use in the late 1800s. At Pohoiki itself, an entrepreneur named Robert Rycroft settled in 1877 and soon began a series of ventures including 'awa shipping, an ohia 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 Department of Planning, 1992). The advent of plantation sugar in about 1900 brought with it a need for laborers, and villages occupied by thousands of immigrants sprouted up in areas of good soil. The territorial government opened up homesteads for farmers throughout Puna, and the population began to rebound. Growth has accelerated since 1970 as a result of the occupation of tens of thousands of residential agricultural lots in substandard subdivisions. The low costs and relaxed standards have drawn many new residents, including retirees, commuters to Hilo, home business owners, 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 probably slowed somewhat, but it is likely that Puna is home to at least 25,000 people in 1997. The steady growth is in part attributable to the ready availability of inexpensive building lots and rental housing within a reasonably close distance 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 (Table 3-1). The median family income in the Pahoia-Kalapana Division (which includes the study area) in 1989 was less than 60 percent of that of the county as a whole. Over 30 percent of individuals had income below the poverty level, more than twice the percentage of Hawaii County. About 25 percent of those older than 25 years did not complete high school, 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

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

TABLE 3-1
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, 1991

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, various years). Although Ahalanui Park has relieved recreational demand by providing a swimming area, other multi-purpose facilities are necessary. It is likely that the proposed park would fill a very real recreational need for a large group of residents in Lower Puna.

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,

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sales, or administrative work; 13.0 percent were in service occupations; 15.8 percent were in farming, forestry, or fishing; 15.1 percent were 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).

Fishermen from Puna and to some extent from around the island make frequent use of the Pohoiki Small Boat Launch, as it is the only launching facility in the district. 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 1994-1996, the value of the catch has consistently exceeded \$1 million per year. The major component of the catch is tuna on handline, with trolling, bottom handline, dive, and other catch types accounting for less than 10 percent of the value. During the 1980s and 1990s, the Puna catch accounted for between 15 and 20 percent by weight of various commercial pelagic fish (especially ahi, ono, and swordfish) caught in the entire State of Hawaii (County of Hawaii Department of Research and Development, various years).

Environmental Consequences

Neither of the alternatives would have a measurable impact on demographics or the local economy. 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 proposed action would be essentially beneficial. The primary benefit would be the enhancement of recreational opportunities for an area undersupplied with parks. A secondary benefit would be the improved circulation pattern in the area, which would help reroute non-park traffic around the park and shoreline, calming traffic in the vicinity of the park and creating a more pleasant, safe atmosphere.

The removal from papaya production of approximately 18 acres would not affect the papaya industry in any appreciable way. The provision of modern, paved boat-parking facilities with electrical hookups, water, wastewater treatment, and security would benefit the commercial/subsistence fishermen who use Pohoiki, and the improvements are thus strongly supported among this group.

As described above, the populations residing in Lower Puna were principally minority. Therefore, any impacts associated with the proposed action would likely have disproportionate

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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 the proposed 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 to minimize fugitive emissions.

3.3.3 Cultural Resources

Affected Environment

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. In addition, the agency must allow the Advisory Council on Historic Preservation to comment on these proposed impacts. Cultural resources comprise either archaeological sites, standing structures, landscapes, or traditional cultural properties. 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.

The proposed Pohoiki Park would contain about 22 acres, including all of TMKs 1-3-008-016 and -033 and a portion of TMK 1-4-002-008 at Pohoiki, Puna, Hawaii County, Hawaii. FEMA has defined the APE for this undertaking as comprising those portions of these parcels subject to ground disturbing activities as described in Sections 2.3 and 2.4.

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 National Register of Historic Places; National Register 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 (Wilson, 1997; Appendix B). According to records maintained at the SHPO, two parcels that would comprise the proposed park (TMK 1-3-008-016 and -033) do not appear to have important archaeological sites. However, parcel TMK 1-4-002-008 has not been subject to archaeological survey and retains a high probability for containing one or more human burials. The SHPO recommended that FEMA perform an archaeological survey of the property to identify the presence of cultural resources in parcel TMK 1-4-002-008. In addition, SHPO recommended

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that FEMA contact the Office of Hawaiian Affairs and the Hawaii 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, Kapoho, 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.

No improvements are proposed for parcel TMK 1-4-002-008 under the proposed action. Nonetheless, in order to reduce the potential for this undertaking to have an adverse impact on cultural resources, FEMA would ensure that the recommended archaeological survey would be conducted. If no important cultural resources are identified, and if the SHPO concurs with the findings of the report of these studies, then the proposed action is in compliance with the requirements of Section 106 of the NHPA.

FEMA would also ensure that consultation with both the Office of Hawaiian Affairs and the Hawaii Burial Council would occur in order to identify the presence of potential traditional cultural properties, which may include burials, within the project's APE. If these discussions determine that there are no traditional cultural properties within the proposed APE, then the proposed action is in compliance with the requirements of Section 106 of the NHPA.

If either the archaeological survey or traditional cultural property consultation identifies properties considered to be eligible for the National Register of Historic Places, FEMA would ensure consultation with the Hawaii SHPO, the Advisory Council on Historic Preservation, and other interested parties in order to assess the effects of the proposed impacts on these important resources. Impacts that include ground disturbing activities in areas where human remains have been identified may be considered significant. In addition, proposed land use changes that alter the accessibility or general environment of traditional cultural properties may be considered significant. If important resources are identified, FEMA would work with the SHPO, the Advisory Council on Historic Preservation, as well as interested parties to avoid, reduce, minimize, or mitigate these adverse effects.

3.3.4 Infrastructure

Affected Environment

Potable Water

Water service to Pohoiki was installed in 1995 to provide water to restrooms at Isaac Hale Beach Park. The waterline was not hooked up to the restrooms because treatment of wastewater at the restroom was not adequate, and DOH would not allow it to reopen. The 3-inch waterline on the makai side of Kaimu-Kapoho Road has a capacity of 50 gallons per minute (gpm). The

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waterline is a 2400-foot extension off an 8-inch waterline along Kaimu-Kapoho Road from the direction of Kapoho (northeast).

Potable water is not currently supplied to either Kehena nor Kapoho beach sites.

Wastewater Treatment

As discussed in Section 3.1.3, the lack of toilet facilities at Kehena and Kapoho have contributed to surface water contamination. Prior to its closing by DOH, wastewater from the Isaac Hale Beach Park restroom entered a cesspool adjacent to the building and then drained into the ocean. After the restroom was closed, portable toilets were placed in the park and have been in continual use since. The portable toilets have proven inadequate, and the result has been contaminated surface water that flows into the ocean.

Electricity and Telephone Service

Kehena and Kapoho currently do not have electrical or telephone service available to beach users. Isaac Hale Beach Park and the subject property currently do not have electrical and telephone service available. Emergency phone service is provided at Isaac Hale Park.

Roads, Parking, and Beach Access

The area of the proposed park is served by the two-lane Kaimu-Kapoho Road (County Road 137) from the northeast, and the two-lane Pahoa-Pohoiki Road from the northwest. The Kaimu-Kapoho Road runs through Pohoiki and provides a southwesterly route to Kaimu and Kalapana.

Vehicles of users of Isaac Hale Beach Park cause congestion of the roads at Pohoiki that delays vehicles not accessing the park. Parking is inadequate at Isaac Hale Beach Park, Kehena, and Kapoho. 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. 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 Kehena, Kapoho, and Isaac Hale Beach Park 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 under Kaimu-Kapoho Road to provide water for the park. Existing capacity of the water supply is sufficient, therefore no increase in capacity is proposed under this alternative.

The waterline that supplies water to Pohoiki may be available to landowners along Kaimu-Kapoho Road that could cause an increase in development. However, that has been the condition since 1995 and would not be a result of the proposed action.

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SECTION THREE Affected Environment and Environmental Consequences

Wastewater Treatment

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

Under the proposed action, a septic system would be designed to handle the estimated park capacity and would treat wastewater from the restrooms and the boat cleaning station. The septic system would be built to the requirements of DOH. A septic tank and leach field would comprise the septic system. Wastewater from the boat cleaning station would enter a dilution tank, mix with freshwater, and would then be pumped into the septic system.

Electricity and Telephone Service

Emergency phone service would remain at the Pohoiki Park. Photovoltaic cells and a generator would provide electric power for lighting, the wastewater pump, and electrical hookups. An LP would power the generator. The electric generating system would be built adjacent to the pavilion (Olesen, 1997d).

Roads, Parking, and Beach Access

Under the no action alternative, traffic congestion at Pohoiki would continue. Inadequate parking at all three locations would persist. Furthermore, theft and damages to vehicles at Kehena and trespassing by beach users at Kapoho would continue.

The State of Hawaii Department of Transportation stated, in a letter dated May 13, 1997, that a proposed park at Pohoiki would "not have an impact on our State transportation facilities" (Hayashida, 1997; Appendix B).

Automobiles would carry most users to the park. To reduce traffic congestion at Pohoiki and improve traffic flow, road improvements as described in Section 2.3 and 2.4 are proposed. Boaters and beach users would access the park easily with greatly reduced traffic congestion. Public parking lots would be readily available to users and more secure than currently available at Isaac Hale Beach Park, Kapoho, or Kehena. Consultation with the County of Hawaii Department of Public Works would occur before implementing any traffic improvements.

3.3.5 Visual Resources

Affected Environment

Currently, scenic vistas from roads around Isaac Hale Beach Park consist of the shore and ocean makai of Kaimu-Kapoho Road, the hedgerow mauka of Kaimu-Kapoho Road, the hedgerow north and east of Pahoia-Pohoiki Road, and the shore and ocean south of Pahoia-Pohoiki Road. Views toward the coast in the vicinity of the intersection of Kaimu-Kapoho Road and Pahoia-Pohoiki Road are partially impeded by the boat parking area. No public viewpoints exist mauka of Kaimu-Kapoho Road because this is private property. Views from the makai parcels consist of shore and ocean. Beach users at Kapoho would have views of the ocean, coast, and residences. Because of the cliffs at Kehena, views are primarily coastal.

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Environmental Consequences

No views would be changed if the status quo is maintained.

Few views that currently exist would be altered under the proposed action. Exceptions are views of the park as a result of creating breaks in the existing hedgerows for park access and the proposed bypass road. As stated earlier, the hedgerows would be preserved except for these gaps. The beneficial impact from removing the boat, car, and trailer parking area makai of the Kaimu-Kapoho Road / Pahoa-Pohoiki Road intersection would be partially offset by siting handicapped parking in the vicinity of this intersection. New views would be created because a currently privately-held property would become a public park. These new scenic vistas would be created for park users and users of the proposed bypass road and would consist of Pohoiki Park (including lawns, hedgerows, boat parking, and car parking), the coast, and the ocean. Changes to current scenic vistas are shown in Exhibit 3-4. No other views would change as a result of the proposed action.

3.4 SUMMARY OF ENVIRONMENTAL CONSEQUENCES

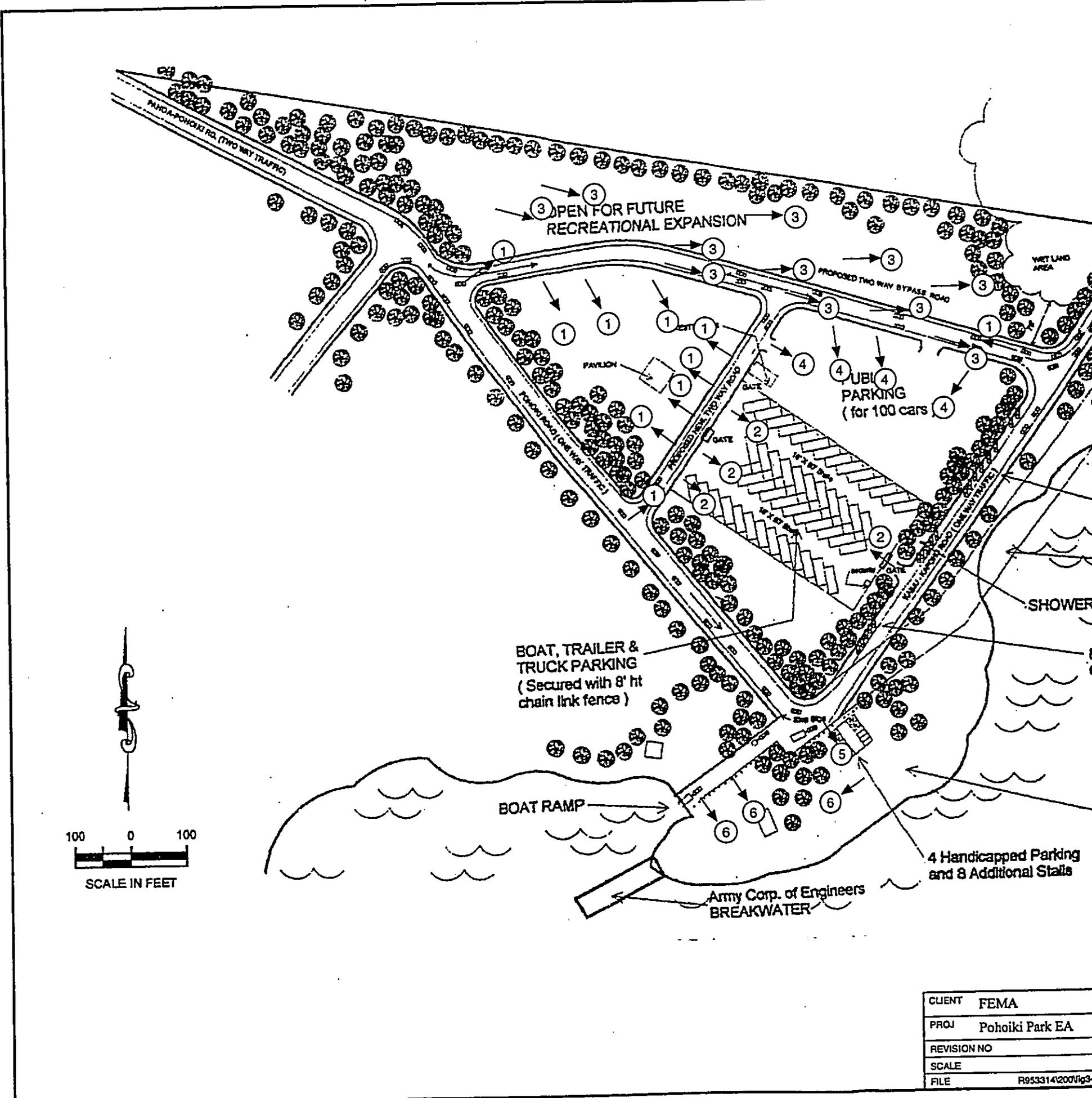
3.4.1 Mitigation of Unavoidable Adverse Impacts

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.

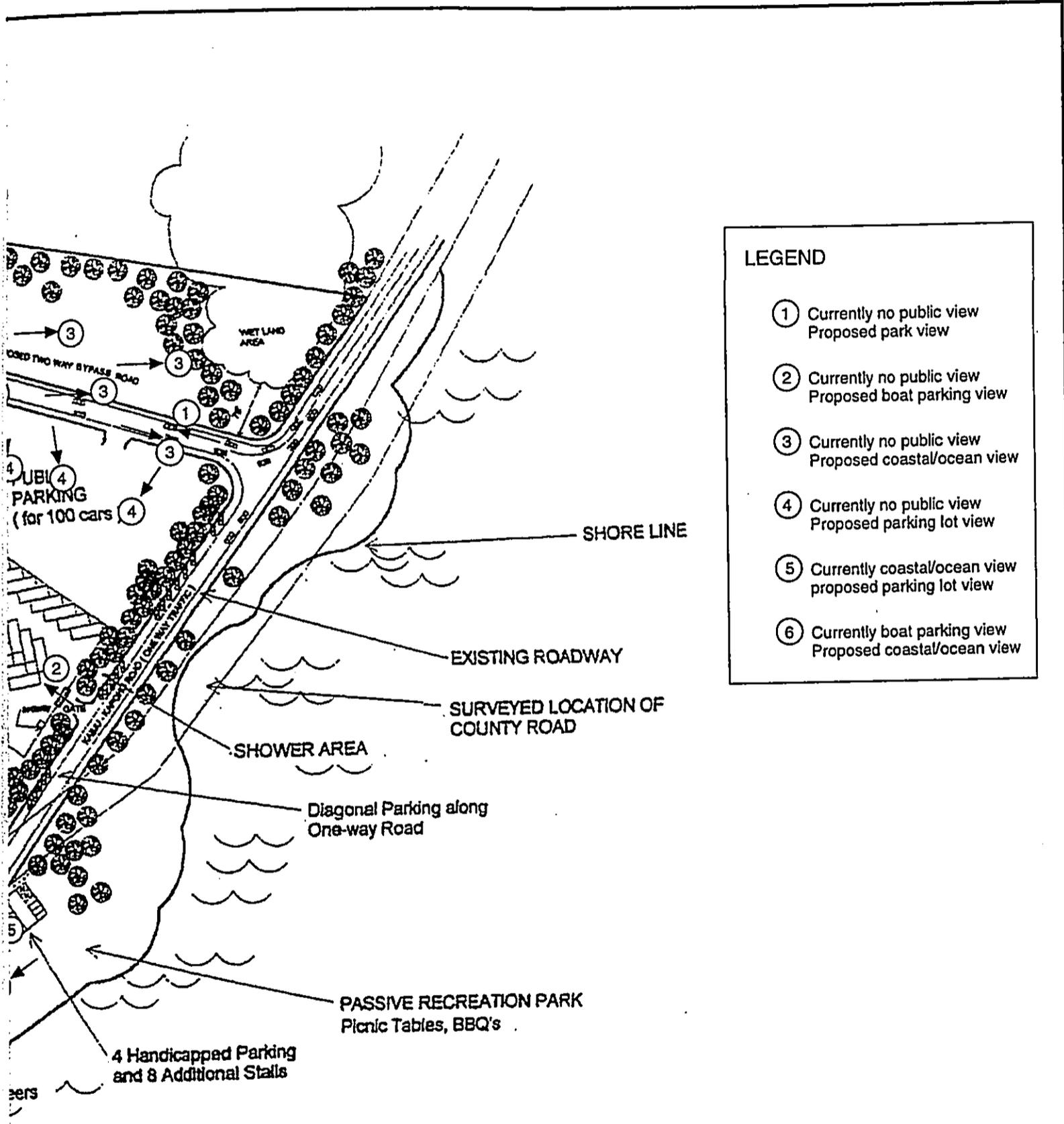
BMPs, such as covering spoil piles and erecting silt fences, would be employed to minimize erosion during park development for the proposed action. After development of the proposed park is complete, the site would be revegetated. To reduce the risk of casualties and damages from earthquake, all structures in the park would be built to appropriate and current UBC seismic safety design standards. The septic system would be designed by a registered engineer and permitted by DOH. The design, construction, and maintenance of the septic system would meet all appropriate DOH regulations. The restrooms and showers would be constructed to comply with EO 11988 and the NFIP and its implementing regulations. Public notification of decisions regarding construction of these facilities would comply with EO 11988. To further protect against flooding, the septic system would be designed to withstand hydrostatic flood forces from the 100-year flood. Consultation with the County of Hawaii Department of Public Works would occur before implementing any traffic improvements.

If bats or hawks are seen during site preparation, any land-clearing activity would be halted and personnel of the USFWS and the State of Hawaii Division of Forestry would be notified. To protect night-flying seabirds, all lighting associated with the proposed action would be shielded and oriented downward to prevent light being directed upward, in compliance with the County of Hawaii Lighting Code. A 75-foot wide buffer area would surround the potential jurisdictional wetland on the proposed site. Before FEMA funding would be granted, the county would

PARK



| | |
|-------------|------------------|
| CLIENT | FEMA |
| PROJ | Pohoiki Park EA |
| REVISION NO | |
| SCALE | |
| FILE | R953314/200/fig3 |



| LEGEND | |
|--------|--|
| ① | Currently no public view Proposed park view |
| ② | Currently no public view Proposed boat parking view |
| ③ | Currently no public view Proposed coastal/ocean view |
| ④ | Currently no public view Proposed parking lot view |
| ⑤ | Currently coastal/ocean view proposed parking lot view |
| ⑥ | Currently boat parking view Proposed coastal/ocean view |

| | | | | | | | |
|-------------|---------------------------------|--------|----|---------|---------------------------------------|---|---------|
| CLIENT | FEMA | TITLE | | | | VIEWPOINTS AND SCENIC VISTAS, POHOIKI PARK | |
| PROJ | Pohoiki Park EA | PaRR | | | | PROJ NO | R953314 |
| REVISION NO | | DES BY | | | EXHIBIT | | 3-4 |
| SCALE | AS SHOWN | DR BY | SM | 4-10-98 | Partnership for Response and Recovery | | |
| FILE | R953314/200/vig3-4viewpointsh.3 | CHK BY | MG | 4-10-98 | | | |

SECTION THREE **Affected Environment and Environmental Consequences**

determine whether the proposed action is consistent with the state CZM program and would receive SMA permits from the state.

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 residential areas, and construction sites would be watered to minimize fugitive emissions.

FEMA would ensure that the recommended archaeological survey would be conducted. FEMA would also ensure that consultation with both the Office of Hawaiian Affairs and the Hawaii Burial Council would occur in order to identify the presence of potential traditional cultural properties. If either the archaeological survey or traditional cultural property consultation identifies properties considered to be eligible for the National Register of Historic Places, FEMA would ensure consultation with the SHPO, the Advisory Council on Historic Preservation, and other interested parties in order to assess the effects of the proposed impacts on these important resources. If important resources are identified, FEMA would work with the SHPO, the Advisory Council on Historic Preservation, as well as interested parties to avoid, reduce, minimize, or mitigate these adverse effects.

3.4.2 Cumulative Impacts

The only known project in the vicinity of the proposed location of Pohoiki Park is the development of Ahalanui 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 Ahalanui Park. Most beneficial impacts would also be too localized to combine with Ahalanui impacts. However, the overall effect of developing two county parks with coastal recreation opportunities would create a beneficial impact neither of the projects would have singularly: the ability to provide Lower Puna residents with a choice of county parks with coastal recreation.

PARR

SECTION FOUR

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 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 |
| Ronald Bachman | 808/974-4221 |
| State of Hawaii Historic Preservation Division | |
| Don Hibbard * | 808/587-0045 |
| Michael Wilson | 808/587-0006 |
| State of Hawaii Office of Hawaiian Affairs | |
| Lynn Lee * | 808/594-1888 |
| Martha Ross | 808/594-1888 |
| Randall Ogata | 808/594-1888 |
| Colin Kippen | 808/594-1938 |
| State of Hawaii Office of Environmental Quality Control | |
| Gary Gil * | 808/586-4185 |

PaRR

SECTION FOUR

List of Agencies Contacted

| | |
|---|--------------|
| 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 Health | |
| Clifford Furukado | 808/933-4371 |
| Jerry Nunogawa | 808/933-4371 |
| County of Hawaii Department of Planning | |
| Virginia Goldstein * | 808/961-8288 |
| Norman Olesen * | 808/961-8565 |
| County of Hawaii Department of Public Works | |
| Donna Fay Kiyosaki * | 808/961-8321 |
| Galen Kuba | 808/961-8321 |
| County of Hawaii Department of Water Supply | |
| Milton Pavao * | 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

PARK

SECTION FIVE

References

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- . 1989. The General Plan, County of Hawaii. November.
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- County of Hawaii Department of Planning. 1992. Puna Community Development Plan, Technical Reference Report. Prepared by Community Management Associates, Inc. January 15.
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- Olesen, Norman. 1997a. Deputy Director, County of Hawaii Department of Planning. Personal correspondence to G. Morgan Griffin, PaRR. May 21.
- . 1997b. Personal communications with Ron Terry. April and May.
- . 1997c. Personal correspondence to G. Morgan Griffin, PaRR. September 2.
- . 1997d. Personal communication with Steve Hambalek, FEMA. October 28.
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- Swanson, Donald A. 1997a. Scientist-in-Charge, U.S. Geological Survey Hawaiian Volcano Observatory. Personal correspondence to G. Morgan Griffin, PaRR. May 30.

PaRR

SECTION FIVE

References

- . 1997b. Personal communication with Steve Hambalek, PaRR. June 11.
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- Wilson, Michael. 1997. Chairperson and State Historic Preservation Officer, State of Hawaii Historic Preservation Division. Personal correspondence to John Sprinkle, PaRR. May 30.
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- Yamashiro, Stephen. 1993. Mayor, County of Hawaii. Personal correspondence to Roy Price, State Civil Defense.

PaRR

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, 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.

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 are limited due to the site's previous use for agriculture. The broader resources of the area, in particular shoreline resources, will be better protected than is currently possible because parking and restrooms are being relocated to less sensitive areas.
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 providing better conditions for commercial/subsistence fishermen.
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.* Secondary effects related to traffic circulation will occur. The park design includes substantial road and circulation improvements to mitigate these effects, yielding an overall improvement.
7. *The project will not involve a substantial degradation of environmental quality.* The effect of the project will be to improve environmental quality.

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Appendix A

State Of Hawaii Environmental Assessment Findings

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.* Most 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 has the potential to improve water quality by relocating parking and restroom uses away from the shoreline and providing wastewater treatment, which currently is not available. Air quality and noise levels will not be affected.
11. *The project will not affect environmentally sensitive areas, such as flood plains, tsunami zones, erosion-prone areas, geologically hazardous lands, estuaries, fresh waters or coastal waters.* The project is located in 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 park improvements will reduce risk to a certain degree by relocating parking, restrooms, and active recreational areas away from the shoreline.
12. *The project will not substantially affect scenic vistas and viewplanes identified in county or state plans or studies.* No current public viewplanes of, through, or to the expansion area will be affected, because it is private property (abandoned papaya fields) completely surrounded by a dense border of trees, located in an area of gentle slopes. Trees bordering the parcel will be preserved except where roads must pass through. The new section of the park will mostly not be visible from any existing roads; the bypass road around the park will provide a view of park facilities, and at the higher elevations, will provide new views of the ocean where existing trees are sufficiently low.
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 Statutes, and Section 11-200-12 of the State Administrative Rules.

PARK

Appendix B
Comment Letters from Scoping Process

PHONE (808) 594-1888

FAX (808) 594-1865



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

March 31, 1997

Dr. Ron Terry
HCR, 1 Box 9575
Keaau, HI 96749

Subject: Environmental Assessment (EA) Preparation Notice for Proposed Expansion of Pohoiki Beach Park. Puna, Island of Hawaii.

Dear Dr. Terry:

Thank you for the opportunity to review the Environmental Assessment (EA) Preparation Notice for Proposed Expansion of Pohoiki Beach Park. Puna, Island of Hawaii.

The Office of Hawaiian Affairs (OHA) has no objections at this time to the EA Preparation Notice. However, OHA intends to thoroughly review the EA once the document is available for public review.

OHA finds the outline of the EA comprehensive in addressing potential impacts stemming from the proposed expansion. OHA's concerns at this time are related to (i) ownership and tenure of lands included in the project, and (ii) the impact of the proposed expansion on Native Hawaiians' access and fishing rights.

Please contact Lynn Lee, Acting Officer of the Land and Natural Resources Division, or Luis Manrique, should you have any questions on this matter.

Sincerely yours,

A handwritten signature in cursive script that reads "Martha Ross".

Martha Ross
Deputy Administrator, Programs

LM:lm
cc: Linda M. Colburn, Administrator
Lynn Lee, Acting Officer, LNR

Stephen K. Yamashiro
Mayor



Harry Kim
Administrator
Bruce D. Butts
Assistant Administrator

County of Hawaii
CIVIL DEFENSE AGENCY
920 Ululani Street • Hilo, Hawaii 96720
(808) 935-0031 • Fax (808) 935-6460

April 7, 1997

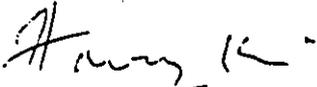
Ron Terry, Ph.D.
HCR 1, Box 9575
Keaau, HI 96749

ENVIRONMENTAL ASSESSMENT FOR PROPOSED EXPANSION OF POHOIKI BEACH PARK
TMK: 1-3-08:16 & 33, AND 1:4-02:08, PUNA, HI

Following are comments regarding Pohoiki Beach Park:

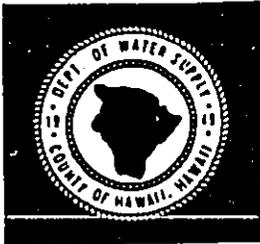
1. A Civil Defense siren is located at the current park area. Relocation cost and schedule must be planned with this agency.
2. Area below 50-foot elevation is identified as hurricane and tsunami evacuation area.
3. The Kaimu-Kapoho road identified as the wetland area is impassable during periods of above-normal surges and tides.

This agency would like to receive a copy of the Environmental Assessment when completed.


HARRY KIM, ADMINISTRATOR

dy





DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII

25 AUPUNI STREET • HILO, HAWAII 96720
TELEPHONE (808) 961-8660 • FAX (808) 961-8657

April 7, 1997

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

ENVIRONMENTAL ASSESSMENT FOR PROPOSED EXPANSION OF POHOIKI BEACH PARK
TAX MAP KEY: 1-3-08:016 & 033, AND 1-4-02:PORTION OF 008

This letter is in response to your letter of March 17, 1997 requesting comments on the proposed project.

Please provide the estimated maximum daily water usage as determined by a registered civil engineer, licensed in the State of Hawaii, for our review.

For your information, our records indicate that current average water consumption at the Pohoiki Beach Park is 1,500 gallons per day (gpd) via a 1-inch meter.

Should you have any further questions, please call our Water Resources and Planning Branch at 961-8660.

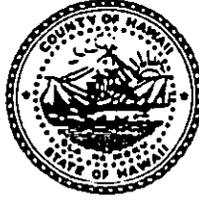
Milton D. Pavao, P.E.
Manager

KKO:gms

Enc.

... Water brings progress...

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

April 8, 1997

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

Dear Dr. Terry:

SUBJECT: ENVIRONMENTAL ASSESSMENT FOR PROPOSED EXPANSION OF
POHOIKI BEACH PARK, TMK: 1-3-08: 16 & 33, AND
1:4-02:08, PUNA, ISLAND OF HAWAII

This is in response to your March 17, 1997, request for comments on any special environmental conditions or impacts related to the proposed expansion of Pohoiki Beach Park.

We have no comments or objections to offer at this time.

Please send us a copy of the environmental assessment upon its completion.

Thank you for the opportunity to comment.

Sincerely

WAYNE G. CARVALHO
POLICE CHIEF


JAMES S. CORREA
DEPUTY POLICE CHIEF
ACTING POLICE CHIEF

EO:lk

Stephen K. Yamashiro
Mayor



Donna Fay K. Kiyosaki
Chief Engineer

Jiro A. Sumada
Deputy Chief Engineer

County of Hawaii
DEPARTMENT OF PUBLIC WORKS
25 Aupuni Street, Room 202 • Hilo, Hawaii 96720-4252
(808) 961-8321 • Fax (808) 961-8630

April 15, 1997

MR RON TERRY PHD
HCR 1 BOX 9575
KEAAU HAWAII 96749

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
TMK: 3 / 1-3-08: 16 & 33 and 1-4-02: 08

We acknowledge receipt of your letter concerning the subject matter, and provide you with our comments as follows:

1. Any building construction shall conform to all requirements of code and statutes of the County of Hawaii.
2. All development generated runoff shall be disposed on site and shall not be directed toward any adjacent properties.
3. All earthwork and grading shall be in conformance with Chapter 10, Erosion and Sediment Control, of the Hawaii County Code.
4. Any work within the County right-of-way shall be in conformance with Chapter 22, Streets and Sidewalks, of the Hawaii County Code.
5. The subject properties are found within Flood Zone "X", "AE", & "VE", according to the Flood Insurance Rate Map dated September 16, 1988. Any construction within these areas will be subjected to the requirements of Chapter 27, Flood Control, of the Hawaii County Code. A flood study maybe required to evaluate the effects of this development.

DRAFT EA
April 15, 1997
Page 2 of 2

6. Wastewater disposal shall meet with the requirements of the DPW, Wastewater Division.
7. A solid waste management plan shall conform to the rules and regulations of the County of Hawaii, Solid Waste Division.
8. The proposed roadway and intersection layouts are unacceptable to the Department of Public Works (DPW). Poor geometric layouts, bad sight distances, and other improper layouts will jeopardize safety. We suggest that the designer consult with the DPW prior to setting the alignments.

Should there be any questions concerning this matter, please feel free to contact Mr. Casey Yanagihara in our Engineering Division at (808)961-8327.


Galen M. Kuba, Division Chief
Engineering Division

CKY



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



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

May 13, 1997

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
JERRY M. MATSUDA
GLENN M. OKIMOTO

IN REPLY REFER TO:
STP 8.7908

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,

A handwritten signature in cursive script, appearing to read "Kazu Hayashida".

KAZU HAYASHIDA
Director of Transportation



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

OFFICE OF PLANNING

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

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

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.

Mr. G. Morgan Griffin
Page 2
May 15, 1997

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.

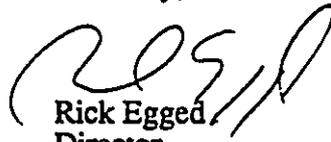
1. Project description. Explain the purpose and function of the project. Describe what the construction and operation activities will entail and the physical characteristics of both projects and their sites.
2. Provide location maps and schematic plans of the project.
3. FEMA must provide a statement 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.

Mr. G. Morgan Griffin
Page 3
May 15, 1997

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.

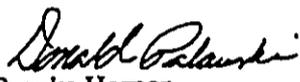
The Service has reviewed the maps provided with your request and pertinent information in our files, including maps prepared by the Hawaii Heritage Program of The Nature Conservancy. The following species may occur within the vicinity of the project area (see enclosed map):

| <u>Dot No.</u> | <u>Species</u> | <u>Date of Last Obs.</u> | <u>Federal Status¹</u> |
|----------------|---|--------------------------|-----------------------------------|
| #8, 10 | <i>Metabetaeus lohena</i> (Anchialine Pool Shrimp) | 1992 | SOC |
| #16 | <i>Buteo solitarius</i> (Hawaiian Hawk) | 1967 | E |

¹SOC - 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



REPLY TO
ATTENTION OF:

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

May 28, 1997

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

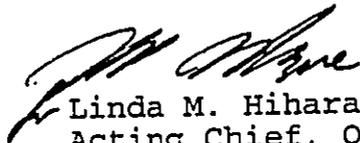
The EA identifies a warm-spring swimming pond which is connected to the ocean by a narrow channel. Waters of the U.S. include ponds which are connected to navigable waters of the U.S. Any proposed work in the surrounding area would need to be evaluated for potential impacts to the pond. For a more precise 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

REF:HP-AMK

MAY 30 1997

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

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

LOG NO: 19428 ✓
DOC NO: 9705PM06

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.

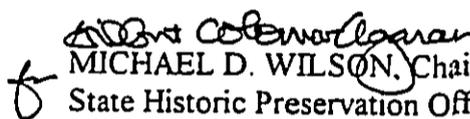
For the Pohoiki (Isaac Hale) Park, TMK 1-3-008: 016 and 033 do not appear to contain significant historic sites. TMK 1-4-002: 008 does not appear to have ever been surveyed, but we suspect that there is a high probability of human burials in this parcel. We recommend a survey of this parcel.

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,


MICHAEL D. WILSON, Chairperson and
State Historic Preservation Officer

PM:amk



United States
Department of
Agriculture

Natural
Resources
Conservation
Service

Box 50004
Honolulu, HI
96850

Our People...Our Islands...In Harmony

SUBJECT: Farmland Conversion
Impact Rating -
Pohoiki Park, Hawaii

DATE: June 6, 1997

TO: Mr. G. Morgan Griffin
Woodward-Clyde
200 Orchard Ridge Drive, Suite 101
Gaithersburg, MD 20878

FILECODE: 310-11-11

Enclosed is the Farmland Conversion Impact Rating (Form AD-1006) for the Pohoiki Park Enhancement. We completed Parts II, IV, and V.

Also enclosed is a soil map, brief soil description, a table of physical properties, and interpretation for recreational uses. The Malama soil formed from organic material over fragmental aa lava, and the Opihikao soil from organic material over pahoehoe bedrock.

Please call me at (808) 541-3414 if you have any questions.

SAKU NAKAMURA
Soil Scientist

The Natural Resources Conservation Service works hand-in-hand with
the American people to conserve natural resources on private lands.

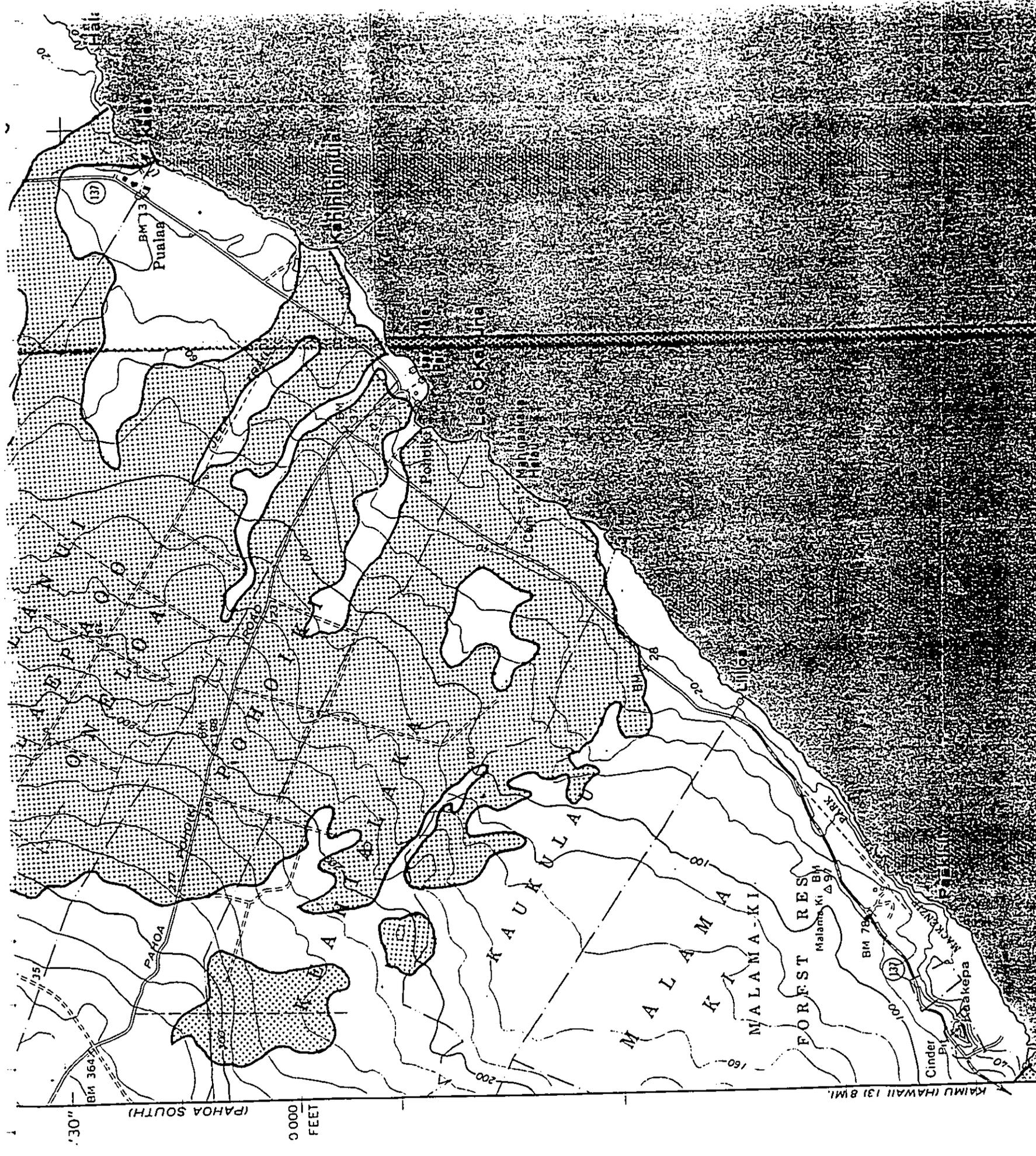
AN EQUAL OPPORTUNITY EMPLOYER

ENCLOSURE B

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

| | | | |
|--|---|---|-------------------------------|
| PART I (To be completed by Federal Agency) | | Date Of Land Evaluation Request: <u>May 28, 1997</u> | |
| Name Of Project: <u>PohoiKi Park</u> | Federal Agency Involved: <u>Federal Emergency Management Agency</u> | | |
| Proposed Land Use: <u>Park/recreational + utility/public</u> | County And State: <u>Hawaii County Hawaii</u> | | |
| PART II (To be completed by SCS) | | Date Request Received By SCS: <u>6/2/97</u> | |
| Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply - do not complete additional parts of this form). | | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Major Crops: <u>Papaya, MacNuts, Coffee, Beef</u> | Farmable Land In Govt. Jurisdiction Acres: <u>727,700</u> % <u>2.8</u> | Acres Irrigated: <u>12,899</u> | Average Farm Size: <u>358</u> |
| Name Of Land Evaluation System Used: <u>State of Hawaii LESA</u> | Name Of Local Site Assessment System: <u>None</u> | Amount Of Farmland As Defined In FPPA Acres: <u>569,000</u> % <u>22</u> | |
| PART III (To be completed by Federal Agency) | | Date Land Evaluation Returned By SCS: | |
| | | Alternative Site Rating | |
| A. Total Acres To Be Converted Directly | Site A | Site B | Site C |
| B. Total Acres To Be Converted Indirectly | <u>21.5</u> | | |
| C. Total Acres In Site | <u>0</u> | | |
| | | <u>21.5</u> | |
| PART IV (To be completed by SCS) Land Evaluation Information | | | |
| A. Total Acres Prime And Unique Farmland | <u>0</u> | | |
| B. Total Acres Statewide And Local Important Farmland | <u>15.7</u> | | |
| C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted | <u>0.003</u> | | |
| D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value | <u>74</u> | | |
| PART V (To be completed by SCS) Land Evaluation Criterion | | | |
| Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points) | <u>45</u> | | |
| PART VI (To be completed by Federal Agency) | | | |
| Site Assessment Criteria (These criteria are explained in 7 CFR 658.6(b)) | Maximum Points | | |
| 1. Area In Nonurban Use | <u>15</u> | <u>15</u> | |
| 2. Perimeter In Nonurban Use | <u>10</u> | <u>10</u> | |
| 3. Percent Of Site Being Farmed | <u>20</u> | <u>20</u> | |
| 4. Protection Provided By State And Local Government | <u>20</u> | <u>20</u> | |
| 5. Distance From Urban Builtup Area | <u>15</u> | <u>15</u> | |
| 6. Distance To Urban Support Services | <u>15</u> | <u>5</u> | |
| 7. Size Of Present Farm Unit Compared To Average | <u>10</u> | <u>0</u> | |
| 8. Creation Of Nonfarmable Farmland | <u>10</u> | <u>0</u> | |
| 9. Availability Of Farm Support Services | <u>5</u> | <u>5</u> | |
| 10. On-Farm Investments | <u>20</u> | <u>0</u> | |
| 11. Effects Of Conversion On Farm Support Services | <u>10</u> | <u>0</u> | |
| 12. Compatibility With Existing Agricultural Use | <u>10</u> | <u>0</u> | |
| TOTAL SITE ASSESSMENT POINTS | 180 | 90 | |
| PART VII (To be completed by Federal Agency) | | | |
| Relative Value Of Farmland (From Part V) | <u>100</u> | <u>45</u> | |
| Total Site Assessment (From Part VI above or a local site assessment) | <u>180</u> | <u>90</u> | |
| TOTAL POINTS (Total of above 2 lines) | 280 | 135 | |
| Site Selected: | Date Of Selection: | Was A Local Site Assessment Used? Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Reason For Selection: | | | |



130" (PAHOA SOUTH)

0.000 FEET

KAIMU (HAWAII 131 B.M.)

1°26'
154°32'30"

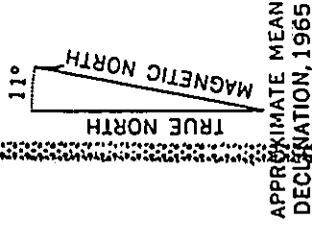
1720 000 FEET

50'

NOTE:

Base Map taken from photo copy of the published
U.S. Department of Interior Geological Survey
Quadrangle Map.

Polyconic projection. Old Hawaiian datum.
10,000-foot grid based on Hawaiian coordinate
system, zone 1
1000-meter Universal Transverse Mercator grid ticks,
zone 5

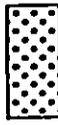


APPROXIMATE MEAN
DECLINATION, 1965

LEGEND:



PRIME AGRICULTURAL LAND - Land which has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops economically when treated and managed according to modern farming methods.



UNIQUE AGRICULTURAL LAND - Land that has the special combination of soil quality, location, growing season, moisture supply, and is used to produce sustained high quality and/or high yields of a specific crop when treated and managed according to modern farming methods.



OTHER IMPORTANT AGRICULTURAL LAND - Land other than Prime or Unique Agricultural Land that is also of state-wide or local importance for agricultural use.



EXISTING URBAN DEVELOPMENT - Land which has been developed for urban type use.



U.S. GOVERNMENT - Land which is currently under the jurisdiction of the U.S. Government.



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

Ref.:PB:SL

P.O. BOX 621
HONOLULU, HAWAII 96809

JUN 12 1997

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

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

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



**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

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

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

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.

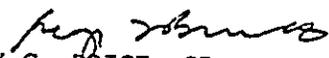
2). The park site at 'Ahalanui presently does not have a siren located in the area of the proposed park. Recommend that a siren be installed in or near the public parking area of the new facility. A specific location may be coordinated prior to final park design. This siren must have a minimum output 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.

Mr. William L. Carwile III
December 19, 1997
Page 2

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.

Appendix C
Comments on Draft Environmental Assessment and County of Hawaii Responses

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

February 12, 1998

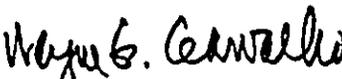
Mr. Steve Hambalek
Federal Emergency Management Agency
Region IX, Pacific Area Office
Building T-112, Stop 120
Fort Shafter, HI 96858-5000

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
REPLACEMENT OF PUNA DISTRICT BEACHFRONT PARKS
HAWAII COUNTY, HAWAII

We reviewed the above-referenced draft environmental assessment and have no comments or objections to offer at this time.

Thank you for the opportunity to comment.

Sincerely,


WAYNE G. CARVALHO
POLICE CHIEF

EO:lk



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

February 12, 1998

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

SUBJECT: Draft E. A. Replacement of Puna District Beachfront Parks,
Hawaii County, Hawaii

I am in agreement with the FONSI as supported by the E.A. The following are offered as suggestions that may be of benefit to the park:

Page 2-5, Paragraph 2. It is suggested that access to the secured boat parking area be made available to all recreational boaters and not just affiliates of the "local commercial fisherman's association."

Page 2-5, Paragraph 3. Grey water from showers and boat wash rocks should be used to irrigate lawns and trees on premise. Unless the park has a resident caretaker for security it is suggested that electric generating units and other amenities be provided by individual park users. Night security and salt corrosion both take a toll on exposed equipment.


RONALD E. BACHMAN
East Hawaii Wildlife Manager

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 1, 1998

Ronald E. Bachman, East Hawaii Wildlife Manager
Division of Forestry and Wildlife
Hawaii State Department of Land and Natural Resources
P.O. Box 4849
Hilo, HI 96720

Dear Mr. Bachman:

Subject: Draft Environmental Assessment (EA) for Replacement of Puna District Beachfront Parks

As the approving agency for the EA under Chapter 343, HRS, we are responding to the comments you sent Mr. Steve Hambalek of the Federal Emergency Management Agency (FEMA), on February 12, 1998, in response to the Draft EA. Below is a point by point response.

1. Secured Boat Parking Area. We agree with your suggested modification, and we have changed the wording in the Final EA and will implement a policy that reflects the understanding that access will be allowed under controlled supervision by the County of Hawaii via permits.
2. Use of Grey Water. Grey water will have to be treated in a septic system because of the presence of blood and other contaminants unsuitable for use, at least in a raw form, for irrigation. Moreover, because of the abundant rainfall on the windward side of the island we do not find it necessary to provide irrigation for our parks in this region.
3. Electric Generating Unit. While we certainly understand the risks of salt corrosion, vandalism and theft for equipment at County parks, we feel that since the unit will be located away from the actual shoreline in a fenced, locked compound, it will be adequately protected. Any benefits of avoiding exposing County property to risk by requiring fishermen to supply individual electrical generating units would be outweighed by the uncontrolled noise, air pollution, and inconvenience this would entail.

Thank you for your 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, HI 96858-5000

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

February 17, 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 Environmental Assessment for the Replacement of Puna District Beachfront Parks
Hawaii County, Hawaii
TMK: 1-3-08: 16 & 33; 1-4-02: 8; Pohoiki, Puna, Hawaii

Thank you for your letter dated February 2, 1998, offering our office the opportunity to comment upon the above-described draft environmental assessment. We have completed our review and have the following comments for your consideration:

Section 3.3.1 - Land Use and Zoning

1. The narrative for the Affected Environment correctly describes the State Land Use Designation (Conservation/Agriculture) and County Zoning (A-1a/Open) of the affected properties. However, the following statement within this section is too generalized; *"Beaches in the Kapoho area are zoned single-family residential by the county and are within the state's Urban District."* We assume that this statement references the shoreline area immediately fronting the Kapoho Beach Lots and Vacationland Hawaii Subdivisions, both of which do maintain a Single Family Residential (RS) zoning. But these subdivisions are situated approximately 1.7 miles to the north of the Pohoiki project site. "Beach areas" between these subdivisions and the project site are generally designated Conservation and Agriculture by the State Land Use Commission and Agricultural-1 acre (A-1a) by the County. A clarifying statement should be included within this section of the assessment.

Mr. Steve Hambalek
Federal Emergency Management Agency
Page 2
February 17, 1998

2. The entire project site is situated within the County's Special Management Area (SMA). The last sentence within Affected Environment (p.3-14) states that "*All parcels proposed for acquisition and development under the proposed action are within the SMA, and therefore subject to compliance with the state CZM Program.*" In addition to compliance with the State's CZM Program requirements through its Federal consistency program, the proposed action must also comply with requirements of the County's CZM Program, which includes the Special Management Area and the Shoreline Setback Area.

3. Shoreline Setback regulations for the County of Hawaii (Planning Commission Rule No. 8 and Planning Department Rule No. 11) regulates the use and development of land situated within the County's Shoreline Setback Area, which extends a minimum of 40 feet from the certified shoreline. Based on maps included within the draft environmental assessment, it appears that some improvements may be situated within the 40-foot shoreline setback area. Should this be the case, then a shoreline setback variance may be required; a process which requires compliance with the requirements of Chapter 343, Hawaii Revised Statutes relating to Environmental Impact Statements. A shoreline survey, certified by the Chairman of the Board of Land and Natural Resources, may also be required to confirm the location of the shoreline relative to all proposed improvements.

We hope that the comments we have provided are of assistance to you. Please feel free to contact Daryn Arai of this office should you have any questions.

Sincerely,



 VIRGINIA GOLDSTEIN
Planning Director

DSA:jkg
f:\wp60\czm\Ch343\LPohoi01.dsa

c: Mr. Norman Olesen, Office of the Mayor
Mr. George Yoshida, Dept. of Parks and Recreation
Mr. Gary Gill, Office of Environmental Quality Control

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 1, 1998

Virginia Goldstein, Director
Hawaii County Planning Department
25 Aupuni Street
Hilo, HI 96720

Dear Ms. Goldstein:

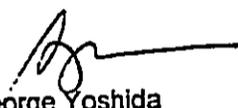
Subject: Draft Environmental Assessment (EA) for Replacement of Puna District Beachfront Parks

As the approving agency for the EA under Chapter 343, HRS, we are responding to the comments you sent Mr Steve Hambalek of Federal Emergency Management Agency (FEMA), on February 17, 1998, in response to the Draft EA. Below is a point by point response.

1. Land Use and Zoning. We have clarified the EA by adding statement you have recommended.
2. County SMA. We have clarified the EA by adding statement you have recommended.
3. Activities Within the Shoreline Setback. Our plans call for no new activities within the shoreline area, and, in fact, removal of some existing uses (e.g., boat parking). If you will review the project plans supplied in the EA, it should be clear that no parking or other facilities approach within 80 feet of the shoreline. A certified shoreline survey is attached for your review.

Thank you for your comments.

Sincerely,


George Yoshida
Director

Attachment: 1 copy of Certified Shoreline Survey

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



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813-5249
PHONE (808) 594-1888
FAX (808) 594-1865

March 03, 1998

Dr. Ron Terry
HCR, 1 Box 9575
Keaau, HI 96749

Doc. EIS No. 144

Subject: Draft Environmental Assessment (DEA) for Replacement of Puna District Beachfront Parks, Island of Hawaii

Dear Dr. Terry:

Thank you for the opportunity to review the Draft Environmental Assessment (EA) for Replacement of Puna District Beachfront Parks, Island of Hawaii. The County of Hawaii is proposing to replace facilities destroyed by 1983 Kilauea lava flows. The proposed action includes acquisition and development of 22 acres into beachfront park.

The Office of Hawaiian Affairs (OHA) has some concerns with the proposed development plan. After reviewing the DEA, it is unclear whether the DEA is an assessment (i) for the proposed expansion of Pohoiki Beach Park (see OHA's response in Appendix B to an environmental assessment preparation notice issued in early 1997), (ii) for replacement of beachfront parks (a new project?), or (iii) for an expanded scope of the proposed Pohoiki Beach Park.

OHA feels that the DEA should contain narrative alerting reviewers of changes in scope and should clearly state which proposal is the subject of review. If the DEA is for a new project, then the letters of response listed in Appendix B do not address the present scope. Because of these inconsistencies in the DEA, OHA urges the applicant to (i) review and re-submit the DEA, and (ii) seek community input for this apparently new scope.

Letter to Dr. Ron Terry
March 03, 1998
Page 2

Please contact Colin Kippen (594-1938), LNR Officer, or Luis Manrique (594-1758), should you have any questions on this matter.

Sincerely yours,



Randall Ogata
Administrator



Colin Kippen
Officer,
Land and Natural
Resources Division

cc: Board of Trustees
CAC, Island of Hawaii

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 1, 1998

Randall Ogata, Administrator
Hawaii State Office of Hawaiian Affairs
711 Kapi'olani Blvd., Suite 500
Honolulu, HI 96813-5249

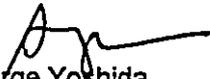
Dear Mr Ogata:

Subject: Draft Environmental Assessment (EA) for Replacement of Puna
District Beachfront Parks

Thank you for your comments addressed to our consultant Dr. Terry, dated March 3, 1998, on the subject project. Below is a point by point response.

1. **Scope of Project.** The project is to expand Pohoiki Beach Park. The basic plan has remained essentially the same from the time of initial community input, through preconsultation (when your agency was contacted), through the many community meetings, and into the Environmental Assessment. We apologize if the title misled your agency into believing that the scope of the project had somehow changed. As we are required to examine alternatives to the proposed project in an EA, we also discussed our investigation of other sites along the Lower Puna coastline that could conceivably accommodate the recreational facilities lost in the lava flow and the current needs of residents. As none of these sites were found to be suitable, expansion of Pohoiki Park was considered the only viable alternative. We believe there is therefore no need to resubmit the EA or reinitiate agency or public consultation.

Sincerely,


George Yoshida
Director

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

BENJAMIN J. CAYLANO
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

REF:HP-AMK

MAR - 5 1998

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

DEPUTIES

GILBERT COLOMA-AGARAN

AQUACULTURE DEVELOPMENT
PROGRAM

AQUATIC RESOURCES
CONSERVATION AND

RESOURCES ENFORCEMENT
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FORESTRY AND WILDLIFE
HISTORIC PRESERVATION

DIVISION
LAND DIVISION
STATE PARKS
WATER AND LAND DEVELOPMENT

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

LOG NO: 21055 ✓
DOC NO: 9802PM08

Dear Mr. Hambalek:

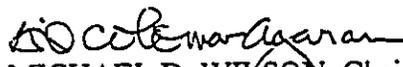
**SUBJECT: Draft Environmental Assessment for Replacement of
Puna District Beachfront Parks
Pualaa and Pohoiki, Puna, Hawaii Island
TMK: 1-3-008:016 and 033; 1-4-002: Por. 008**

This is in response to the letter of February 2, 1998 from Mr. Sandro Amaglio inviting comments on the above referenced document.

It is my understanding from reading the subject document that all of the recommendations contained in my letter of May 30, 1997 to Dr. John Sprinkle, Jr. concerning the need for archaeological surveys of two parcels and consultation with Native Hawaiian organizations and individuals have been accepted and will be implemented.

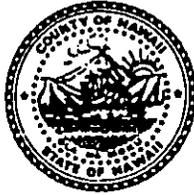
We will thus look forward to receiving a report on these projects for our review and comment as the next step in the Section 106 review process.

Aloha,

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

PM:amk

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 1, 1998

Michael D. Wilson, State Historic Preservation Officer
Hawaii State Department of Land and Natural Resources
33 South King St, 6th Floor
Honolulu, HI 96813

Dear Mr. Wilson:

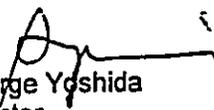
Subject: Draft Environmental Assessment (EA) for Replacement of Puna
District Beachfront Parks

As the approving agency for the EA under Chapter 343, HRS, we are responding to the comments you sent Mr. Steve Hambalek of the Federal Emergency Management Agency (FEMA), on March 5, 1998, in response to the Draft EA.

As noted in your letter, we are awaiting FEMA's completion of the Section 106 Review process. As we anticipate that the result of this process will be the determination that the park project can proceed with no adverse effect to significant historic sites, we intend to issue a Chapter 343 FONSI for the project.

Thank you for your 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, HI 96858-5000

BENJAMIN J. CAYETANO
GOVERNOR



GARY GILL
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

236 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 686-4186
FACSIMILE (808) 686-4186

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) Puna Beachfront Park Replacement, Pohoiki

In the final EA please include the following:

1. Contacts: List state agencies, county agencies, community groups and individuals receiving copies of the draft EA. Include copies of all correspondence, including responses sent to comment letters received during the pre-consultation phase.
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. Zoning: The draft EA lists agriculture and conservation zoning for the selected site. Include a map that shows the zoning for all parcels involved. If any portion of the site is located in the conservation district, indicate the status of the conservation district use permit.
5. 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.

George Yoshida
March 9, 1998
Page 2

6. Significance criteria: Your analysis of significance according to HAR 11-200-12 did not include two criteria that were added as of 8-31-96: (12) Substantially affects scenic vistas and viewplanes identified in county or state plans or studies; and (13) Requires substantial energy consumption. Please include these in the final EA.
7. Anchialine ponds: Anchialine ponds, many of which are now degraded, are found throughout this coastal area. What is the proximity of the park to any of these ponds and what measures will be taken to restore and/or protect them.
8. Segmentation: A draft EA has been submitted by the same applicants for Ahalanui Park in this region. Are other parks planned for the region besides Pohoiki and Ahalanui? The Environmental Impact Statement law prohibits segmentation of larger projects and requires that full disclosure of impacts be made on projects in their entirety. Provide a full analysis and discussion of this and all related projects in the area.

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

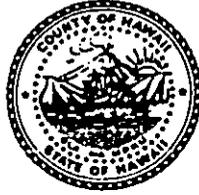
Sincerely,



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 1, 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 for Replacement of Puna District
Beachfront Parks

Thank you for your comments addressed to our consultant Dr. Terry, dated March 9, 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.
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 \$1.05 million, with funding by federal government (FEMA) and the County of Hawaii on a 75-25 match basis.
4. **Zoning.** The EA now includes a zoning map. No activities are planned for the conservation district, and therefore no Conservation District Use Permit will be required.
5. **Visual Impacts.** A new section has been added dealing with visual impacts. It should be emphasized that there are no adverse visual impacts associated with the park expansion. No current public viewplanes of, through or to the expansion area will be affected, because it is private property (abandoned papaya fields) completely surrounded by a dense border of trees, located in an area of gentle slopes. As discussed in the EA, the trees bordering the parcel will be preserved except where roads must pass through. The new section of the park will be shielded by vegetation from the existing roads except at the two driveways; the bypass road around the park will provide a view of park facilities, and at the higher elevations, will provide new views of the ocean. As there are no current public vantage

Mr. Gary Gill, Director
Page 2
April 1, 1998

points into the park, it does not seem necessary to produce a rendering of the facility from any such vantage point, since any facilities would not be visible. The site plan, however, has been modified to provide information on viewplanes.

6. **Significance Criteria.** Discussion of these two significance criteria has been added to the Final EA.
7. **Anchialine Ponds.** Wetlands and tidepools are present on the property that will be acquired for the park. They are on private property that is nevertheless frequented by the public, and they are currently unprotected. As stated in the EA, the County will install a 75-foot buffer zone surrounding the wetland found on the northeastern corner of the property on the mauka side of the beach road. The area containing tidepools will not be developed and will remain untouched. Acquiring the park will allow more protection for these features, including rubbish collection. As also stated in the EA, the tidepools and anchialine ponds beyond the northeastern boundary of the property will be affected in a beneficial way by the project, because they will no longer be subjected to agricultural runoff from the papaya field which will be acquired and converted to park. There are no plans to "restore" any ponds; to our knowledge, none are in need of restoration.
8. **Segmentation.** No other public parks beside Ahalanui are under development in this area. Since the Ahalanui Park expansion and its general impacts are fully discussed in the EA, the full analysis and discussion you request has already been provided. The two projects do not produce separate impacts that are cumulatively significant.

There has been no segmentation. The improvements at Pohoiki and Ahalanui Parks are two separate projects, not one large project. The projects have independent utility and do not cause or depend upon each other. FEMA is gradually funding a number of projects on an individual basis to help residents in the Puna District recover from the lava flow disaster that has been ongoing since 1983. The only common denominator is the funding source. This is similar to the Hawaii State Department of Education, which funds construction of schools in various locations. Just as each school requires a separate EA, each infrastructure improvement requires its separate EA.

Again, thank you for your comments.

Sincerely,

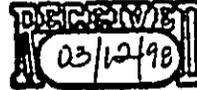

George Yoshida
Director

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

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

March 10, 1998

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:

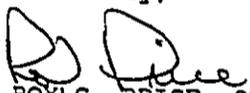
Draft Environmental Assessment: Replacement of Puna District Beach
Front Parks; Hawaii County, Hawaii
Kilauea Lava Flow Disaster, FEMA-864-DR

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

State Civil Defense recommendations provided in the Draft Report that address the upgrade and relocation of the existing siren at Pohoiki are still appropriate.

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

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 1, 1998

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

Dear Mr Price:

Subject: Draft Environmental Assessment (EA) for Replacement of Puna
District Beachfront Parks

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), on December 19, 1998, in response to the preliminary Draft EA.

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
Director

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



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3122
Box 50088
Honolulu, Hawaii 96850

In Reply Refer To: MEM

MAR 27 1998

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

Re: Replacement of Puna District Beachfront Parks, Hawaii County, Hawaii.

Dear Mr. Hambaleck:

The U.S. Fish and Wildlife Service (Service) has reviewed two documents relative to the referenced action. These documents include (1) a Draft Environmental Assessment Report for the Replacement of Puna District Beachfront Parks, Hawaii County, Hawaii (DEA) and (2) a Draft Supplemental Environmental Assessment Report for Development of Ahalanui Park, Hawaii County, Hawaii (DSEA). The lead Federal agency for the projects is the Federal Emergency Management Agency who will be working in cooperation with the County of Hawaii Department of Parks and Recreation. The following comments have been prepared pursuant to the National Environmental Policy Act of 1969 [42 U.S.C. 4321 *et seq.*; 83 Stat. 852], as amended, the Fish and Wildlife Coordination Act of 1934 [16 U.S.C. 661 *et seq.*; 48 Stat. 401], as amended, the Endangered Species Act of 1973 [16 U.S.C. 1531 *et seq.*; 87 Stat. 884], as amended (Act), and other authorities mandating Service concern for environmental values. Based on these authorities, the Service offers the following comments for your consideration.

The proposed action in the DEA includes the acquisition of approximately 22 acres of land adjacent to the existing Isaac Hale Beach Park. This existing park and the newly acquired acreage would be developed into a new site called Pohoiki Park. The proposed action in the DSEA includes the development of approximately 6 acres of land currently owned by the County of Hawaii into a new site called Ahalanui Park. Construction of new roads, parking areas, walkways, foot trails, lighting, restrooms, showers, picnic facilities, recreational facilities, signage, and maintenance facilities would occur at both sites. Installation of necessary power, water, telephone, and waste disposal systems and improvements to existing structures are also proposed.

Replacement of Beachfront Parks
Puna District, Hawaii County, Hawaii.

The Service believes that the DEA and SDEA adequately identify the significant fish and wildlife resources at the proposed project sites, evaluate anticipated project-related impacts to these resources, and include effective measures to avoid or minimize those impacts that are considered adverse. Construction activities will be confined to upland, avoiding the wetlands and anchialine ponds known to exist at the sites. The possibility of temporarily degrading water quality and adversely impacting adjacent marine communities will be minimized through the implementation of Best Management Practices, including the coverage of spoil piles, use of silt fences, and revegetation of the site after grading is completed.

Based on the information contained in the DEA and SDEA, the Service does not anticipate significant adverse impacts to fish and wildlife resources to result from implementation of the proposed actions. Accordingly, the Service would concur with a Finding of No Significant Impact (FONSI) determination for both of the proposed projects.

On May 22, 1997, the Service provided information on the two proposed project sites relative to the presence of federally protected species, including the endangered Hawaiian hawk (*Buteo solitarius*) and an anchialine pond shrimp (*Metabetaeus lohena*), which is a Species of Concern. Subsequently, it was determined that the endangered Hawaiian hoary bat (*Lasiurus cinereus*) and threatened Newell's shearwater (*Puffinus auricularis newelli*) may intermittently transit through the general project area. On January 9, 1998, the Service completed informal consultation under section 7 of the Act for the Ahalanui Park site.

As indicated in the DEA for the Pohoiki Park site, (1) direct impacts to anchialine ponds will be avoided, (2) if bats or hawks are seen during project construction, all land-clearing activities will be halted and the Service will be notified, and (3) all project-related lighting will be shielded and oriented downward in order to minimize adverse impacts to shearwaters. The Service supports incorporation of these measures into the project. As a result, the Service would concur with a determination the proposed project is not likely to adversely affect listed species.

Therefore, the requirements of section 7 of the Act have now been satisfied for the Pohoiki Park site. 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 designated that may be affected by the identified action.

Replacement of Beachfront Parks
Puna District, Hawaii County, Hawaii.

The Service appreciates your concern for endangered species and thanks you for the opportunity to comment on the proposed projects. If you have questions regarding our comments, please contact Fish and Wildlife Biologist Mick Castillo by telephone at (808) 541-3441 or by facsimile transmission at (808) 541-3470. For questions regarding the section 7 consultation process, please contact Interagency Cooperation Program Leader, Margo Stahl, at the same numbers.

Sincerely,


Brooks Harper
Field Supervisor
Ecological Services

cc: NMFS-PAO, Honolulu
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