

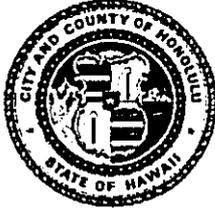
Hanauma Bay Nature Preserve *Rec'd 11-26-96*

DEPARTMENT OF PARKS AND RECREATION

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813

JEREMY HARRIS
MAYOR



DONA L. HANAIKE
DIRECTOR

ALVIN K.C. AU
DEPUTY DIRECTOR

November 26, 1996

Mr. Gary Gill, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Room 702
Honolulu, Hawaii 96813

Dear Mr. Gill:

Subject: Negative Declaration for Revised Final Environmental
Assessment for Hanauma Bay Nature Preserve
Tax Map Key 3-9-12: Por. 2, 12, 14, & 16
Koko Head, Oahu, Hawaii

The Department of Parks and Recreation, City and County of Honolulu, has reviewed all comments received during the 30-day public comment period which began on October 8, 1996 and has determined that this project will not have significant environmental effects.

We are filing a negative declaration for this project. Please publish this notice in the December 8, 1996 Environmental Notice.

We have attached a completed Environmental Notice Publication Form and four copies of the Final Environmental Assessment.

Should there be any questions, please contact Brian Suzuki at 527-6316.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dona L. Hanaike", is written over a horizontal line.

DONA L. HANAIKE
Director

DLH:ei

Attachments

146

1996-12-08-0A-~~FEA~~ Hanauma Bay Natural ^{DEC} Preserve ¹⁹⁹⁶

FILE COPY
ORIGINAL

Hanauma Bay Nature Preserve

*Revised Final Environmental Assessment
and Negative Declaration*

Oahu, Hawaii

Prepared for:

*City and County of Honolulu
Department of Parks and Recreation*

Prepared by:

Wilson Okamoto & Associates, Inc.

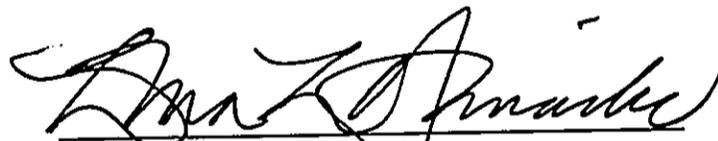
December 1996

HANAUMA BAY NATURE PRESERVE
REVISED FINAL ENVIRONMENTAL ASSESSMENT
AND NEGATIVE DECLARATION

This environmental document is prepared pursuant
to Chapter 343, Hawaii Revised Statutes

Prepared for: Department of Parks and Recreation
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

**Responsible
Official:**



Dona L. Hanaike, Director
Department of Parks and Recreation
City and County of Honolulu

NOV 21 1996
Date

**Accepting
Authority:**

Mayor Jeremy Harris
City and County of Honolulu

Prepared by:

Wilson Okamoto and Associates, Inc.
Engineers and Planners
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

December 1996

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REFERENCES

APPENDIX A Ordinance 96-19, Relating to Fees for Hanauma Bay, Approved by the Honolulu City Council on April 25, 1996.

APPENDIX B Traffic Assessment for Hanauma Bay Nature Preserve Prepared by Wilson Okamoto & Associates, Inc. November 1996.

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PREFACE

This final revised environmental assessment is prepared pursuant to Chapter 343, Hawaii Revised Statutes, and Title 11, Chapter 200, Administrative Rules, Department of Health, State of Hawaii. It revises a previous final environmental assessment accepted on January 15, 1993. Specifically assessed in this document are a proposed fee system and modifications to the previously assessed park master plan.

PROJECT SUMMARY

- Proposing Agency:** Department of Parks and Recreation
City and County of Honolulu
650 S. King Street, 10th Floor
Honolulu, Hawaii 96813
Contact: Dona L. Hanaike, Director
- EA Preparer:** Wilson Okamoto and Associates, Inc.
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826
Contact: Earl K. Matsukawa, Project Manager
- Tax Map Keys:** 3-9-12: portion of 2, 12, 14, and 16
- Area:** Approximately 50 acres
- Location:** Hanauma Bay, East Honolulu, Oahu, Hawaii
- Ownership:** City and County of Honolulu
- Existing Uses:** Sightseeing, recreational beach use, marine preserve, and educational/interpretive activities.
- Proposed Action:**
1. Implement a new fee structure pursuant to Ordinance 96-19 which would charge out-of-state visitors aged 13 years and over a \$3 admission fee to enter the lower preserve and a \$1 parking fee on vehicles staying in the preserve's public parking lot for 15 minutes or longer.
 2. Modify the existing Hanauma Bay Nature Preserve Master Plan to include: a) reconfiguration of the proposed vehicle turnaround area; b) realignment of the proposed pedestrian walkway from the upper to lower preserve; and c) placement of a collection booth at the roadway leading to the parking lot.

Impacts and Mitigative Measures:

Construction of the facility modifications will have similar impacts as those assessed in the previous environmental assessment. During construction, such impacts would include those on traffic, air quality, ambient noise, soils and topography. Long-term benefits may include increased user satisfaction, improved public safety, restored natural resources, and improved traffic and access conditions. These, in turn, will promote the educational/interpretive value of the preserve.

Agencies Consulted in Pre-Assessment Process:

City and County of Honolulu
Department of Land Utilization
Department of Planning
Department of Transportation Services
Department of Wastewater Management

State of Hawaii
Department of Land and Natural Resources

Agencies Consulted in EA Process:

City and County of Honolulu
Board of Water Supply
Building Department
Department of Human Resources -- City Commission on Persons with Disabilities
Department of Planning
Department of Land Utilization
Department of Public Works
Department of Transportation Services
Department of Wastewater Management
Police Department
Fire Department

State of Hawaii
Department of Business, Economic Development and Tourism
Department of Education
Department of Health
Department of Health -- Environmental Management
Department of Land and Natural Resources

State of Hawaii (continued)

Commission on Persons with Disabilities
Department of Land and Natural Resources -- Historic Preservation
Department of Transportation -- Harbors
Department of Transportation -- Highways
Office of Environmental Quality Control
Office of Hawaiian Affairs
Office of Planning
University of Hawaii -- Water Resources Research Center
University of Hawaii -- Environmental Center

Federal Agencies

National Park Service
US Department of Agriculture -- Natural Resources Conservation
Service
US Army Corps of Engineers -- Pacific Ocean
US Department of the Interior -- Fish and Wildlife Services

Other Agencies

GTE Hawaiian Tel
Hawaii Kai Neighborhood Board
Sea Grant Extension Service
Sea Life Park Hawai'i
Friends of Hanauma Bay

Determination:

Negative Declaration

Chapter I

PROJECT DESCRIPTION

I. PROJECT DESCRIPTION

A. Introduction

Hanauma Bay Nature Preserve plays several key roles within the Island of Oahu's system of parks and recreation areas. Visitors to the preserve are offered opportunities for recreation as well as education unlike any other in the State of Hawaii. The preserve has long been one of Oahu's most popular natural attractions. It ranks second only to Waikiki Beach as Oahu's most popular beach recreation area and is a major sightseeing stop for many tour groups.

In 1967, the waters of Hanauma Bay were declared the first Marine Life Conservation District (MLCD) in Hawaii. The shoreline area and supporting park facilities were then known as the City and County of Honolulu Hanauma Bay Beach Park, providing valuable shoreline recreational opportunities. In 1990, however, the educational and interpretive value of the bay was officially recognized and controls over excessive recreational uses were established through the adoption of the Hanauma Bay Rules and Regulations. During this time, the name of the park was changed to Hanauma Bay Nature Park, promoting the concept of a true living museum for the appreciation of marine life by the general public. In May 1992 the Hanauma Bay Nature Park Master Plan was adopted with specific recommendations for preserve development and controlling preserve use. Environmental impacts of the recommendations were addressed in the Hanauma Bay Nature Park Final Environmental Assessment accepted in January 1993.

On July 1, 1995, Ordinance 95-36 went into effect. The ordinance allowed the City and County of Honolulu, Department of Parks and Recreation (DPR) to assess out-of-state visitors aged 13 years and over a \$5 admission fee to the lower preserve. Commercial vehicles entering the preserve were also assessed a fee ranging from \$5 to \$35 depending on the seating capacity of the vehicle. The Ordinance 95-236 changed the name of the preserve to the Hanauma Bay Nature Preserve. The fee system, however, was rescinded by the City Council on December 8, 1995 and was replaced by a voluntary donation system starting from January, 1996. Subsequently, a new Ordinance 96-19 was approved on April 25, 1996 by the City Council allowing the DPR to assess a \$3 admission fee to the lower preserve for out-of-state visitors over aged 13 years and over and a \$1 parking fee on all vehicles in the public parking lot staying longer than 15 minutes (see Appendix A). Implementation of the ordinance is pending a Special Management Area permit.

B. Development Proposal

The proposed action involves two categories of changes in preserve management and development:

1. Fee System

Pursuant to Ordinance 96-19 approved by the City Council on April 25, 1996, an admission fee of \$3 for entrance to the lower preserve will be charged to out-of-state visitors over the age of 13, as well as a \$1 parking fee for vehicles staying over 15 minutes.

2. Modifications to the 1992 Hanauma Bay Master Plan

Slight modifications to the plan would include reconfiguring the proposed shuttle and emergency vehicle turnaround area in the lower preserve, realigning the proposed pedestrian walkway connecting the upper and lower preserve, and constructing a collection booth next to the roadway leading to the parking lot.

C. Purpose and Need

1. Fee System

Pursuant to Ordinance 96-19, fees are to be used for the operation, maintenance and improvement of Hanauma Bay Nature Preserve; educational and orientation programs for visitors to the preserve; conducting a carrying capacity study of the preserve; and, should funds still be available, for the operation, maintenance and improvement of lands deeded in December, 1928 for public park purposes. These lands include Koko Head District Park, Maunalua Bay Beach Park, Koko Head Rifle Range, and the Koko Crater Botanical Garden.

The new fee system would allow for some degree of self sufficiency of the preserve by allocating its funds to the prioritized uses directed by the City's ordinance. These prioritized uses may otherwise be difficult to finance. The educational programs provided by the revenue generated would be beneficial as they would accentuate the experience of the preserve for visitors and deter them from engaging in activities that could damage the marine ecosystem.

2. Modifications to the 1992 Hanauma Bay Master Plan

The proposed shuttle and emergency vehicle turnaround area in the lower preserve has been elongated to allow for greater efficiency and safety during the loading and unloading of shuttle vehicles. The new configuration will minimize unnecessary maneuvers by the shuttles, and thereby improve their mobility over that provided by the current turnaround area. The turnaround area will provide for emergency and handicapped accessibility. The location of the new turnaround area was selected in conjunction with the terminus

of the pedestrian walkway at the visitor center. In addition, the proposed location of Comfort Station #1 has been moved to the east side of the turnaround area to be in closer proximity to the most heavily used swimming, snorkeling and sunbathing areas. The auxiliary snorkel rental/education center has been moved to the west side.

Realignment of the pedestrian walkway was based on a study completed by Gray, Hong, Bills and Associates, Inc. in November 1995. Criteria for planning the walkway included: minimizing its impact on the natural environment; minimizing the visual intrusion of the pathway; minimizing disruption to the use of the park during construction; safety; cost; and control of access to the lower park.

Placement of the collection booth near the roadway leading to the parking lot is necessary to collect the fees proposed in Ordinance 96-19.

D. Development Schedule

1. The fee system is scheduled to be implemented upon approval of a Special Management Area permit. The collection booth will be constructed at the same time.
2. Funding for the pedestrian walkway is anticipated for inclusion in the City's FY 1997-1998 capital improvement program budget, and construction could be scheduled as early as Fall 1998.
3. The shuttle turnaround is part of Phase II of the Hanauma Bay Nature Preserve development plan. Funding for the new turnaround area may be procured within the next six years. The construction timetable is undetermined at this time.

Chapter II

**EXISTING AND PLANNED
PARK DEVELOPMENT**

II. EXISTING AND PLANNED PRESERVE DEVELOPMENT AND USAGE

A. Location

Hanauma Bay Nature Preserve is located about 12 miles from downtown Honolulu on the southeast point of Oahu. See Figures 1 and 2. It is part of the 1,265-acre Koko Head Regional Park which includes Koko Head District Park, Halona Blowhole, Koko Crater Botanical Garden, Koko Head Rifle Range, and Sandy Beach Park.

B. Ownership

Hanauma Bay Nature Preserve is owned by the DPR. Within the preserve, GTE Hawaiian Telephone and American Telephone and Telegraph Company (AT&T) own two adjacent parcels which comprise 42,501 square feet of land. The submerged land within the bay is owned by the State. The waters of the bay between Palea and Paioluolu Points are designated and managed by the State as a State Underwater Park and Marine Life Conservation District (MLCD). All development and management proposals will be implemented on DPR property.

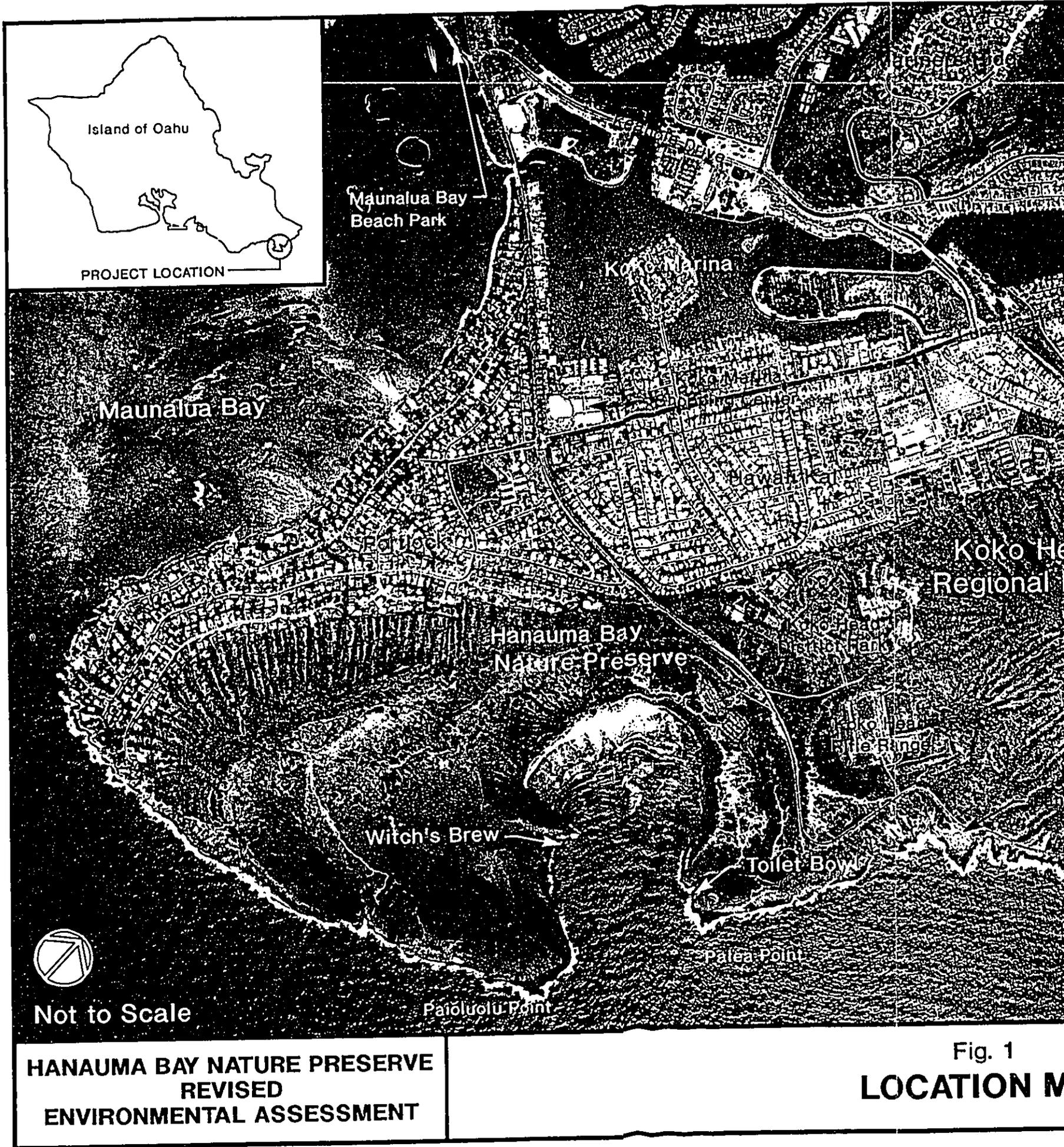
C. Preserve Resources and Facilities

Hanauma Bay Nature Preserve can be divided into two distinct parts, the upper preserve area atop the crater rim and the lower preserve area which extends from the rim down to the shore.

The Preserve is open to the public from 6:00 a.m. daily, with the exception of Wednesdays when it opens at 12:00 p.m.

In 1993, the Preserve's facilities included the access road, two public parking lots, a bus/van staging area, food and snorkel concessions, four comfort stations (three of which are located at the beach and have showers, and two which have preserve maintenance storage rooms), a caretaker's quarters and lifeguard facilities.

Improvements for the upper and lower preserve were proposed in the 1992 Hanauma Bay Nature Park Master Plan. Four phases of development were proposed addressing access, safety and support facilities as illustrated in the Site Development Plan (See Figure 3). Recent improvements completed (illustrated in Figure 4), as well as anticipated future improvements to be performed as Phases I, II, and III, are described below.



**HANAUMA BAY NATURE PRESERVE
REVISED
ENVIRONMENTAL ASSESSMENT**

Fig. 1
LOCATION M

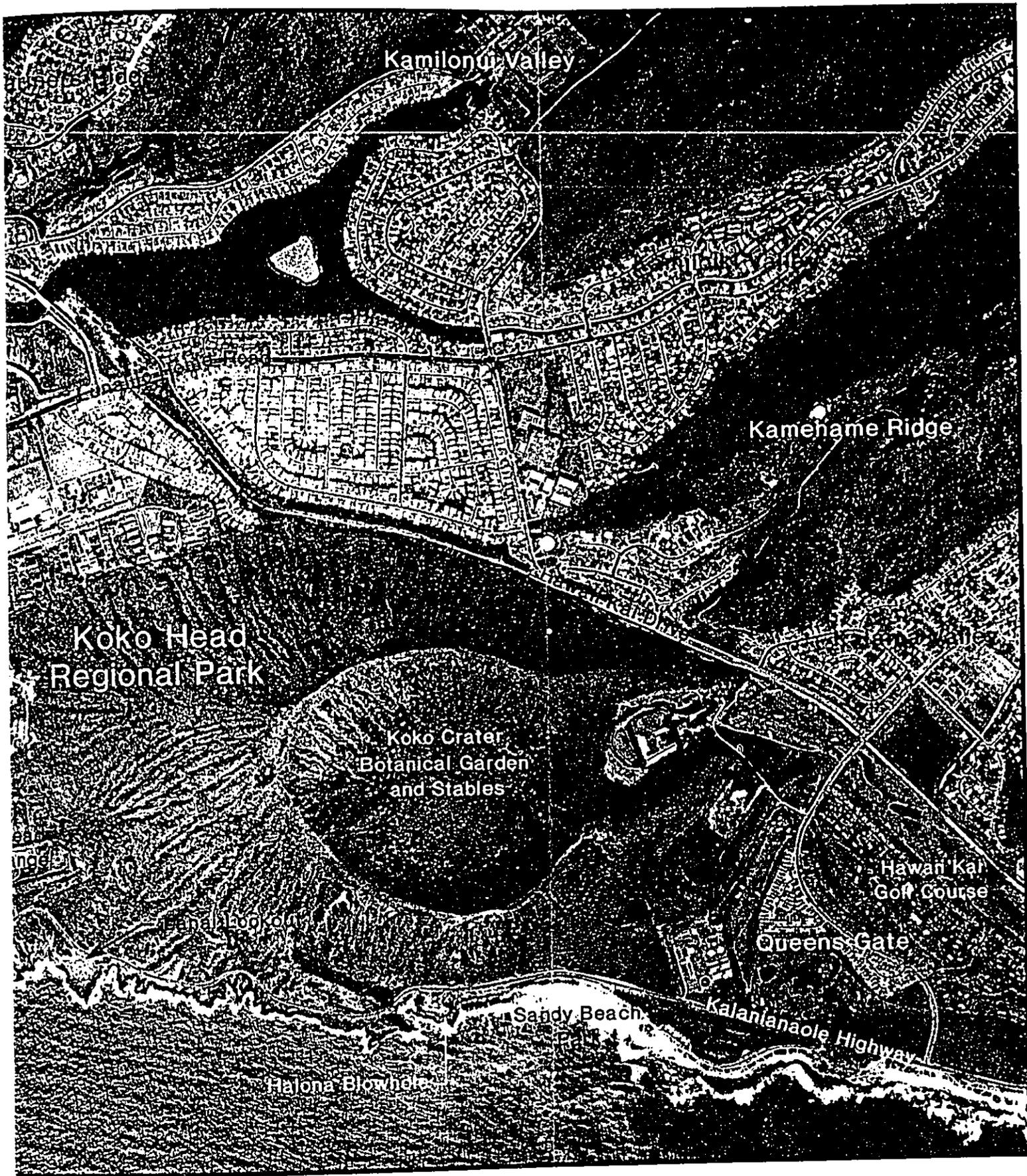


Fig. 1
LOCATION MAP

Prepared For: City and County of Honolulu
Department of Parks and Recreation
Prepared By: Wilson Okamoto & Associates, Inc.

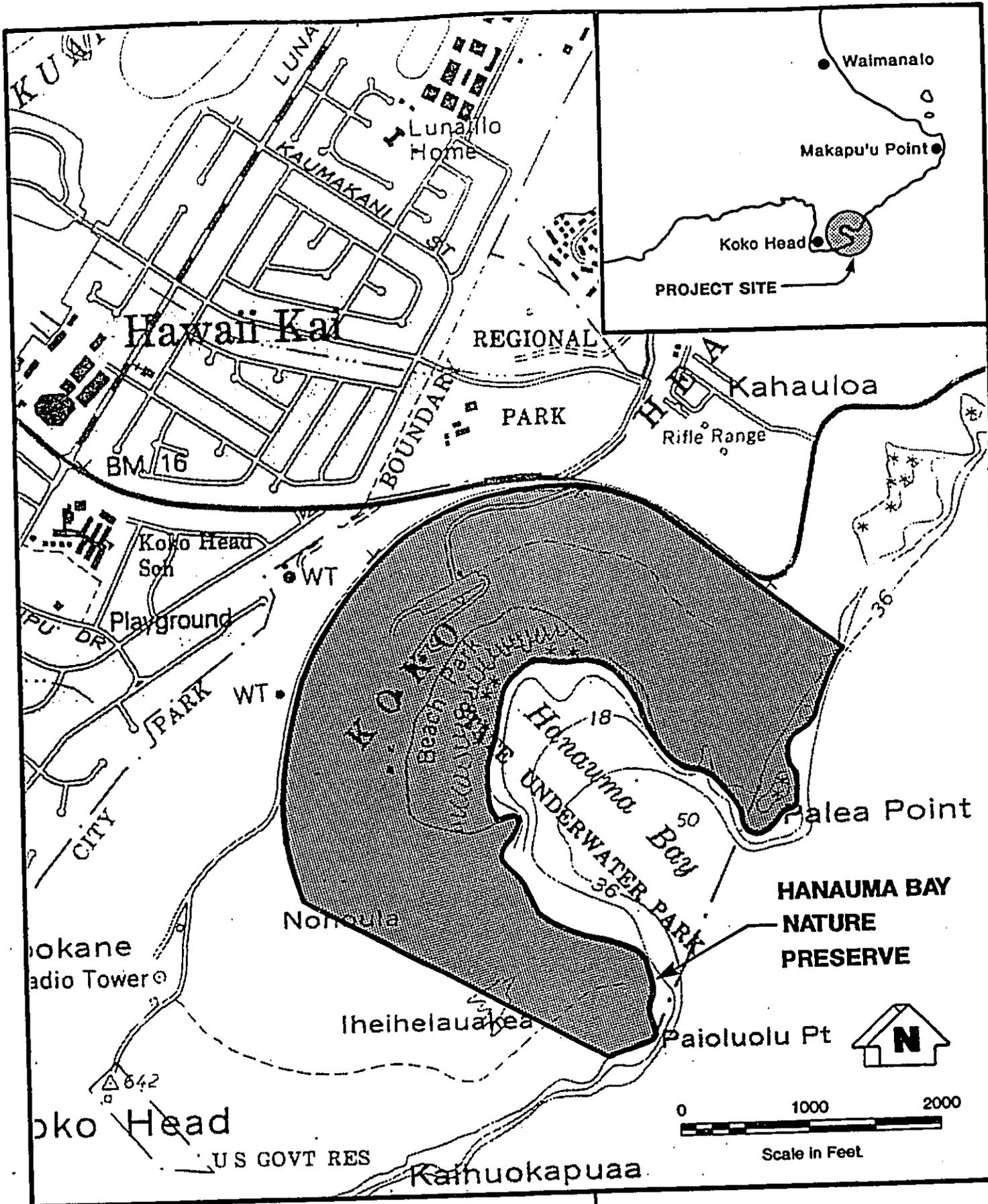


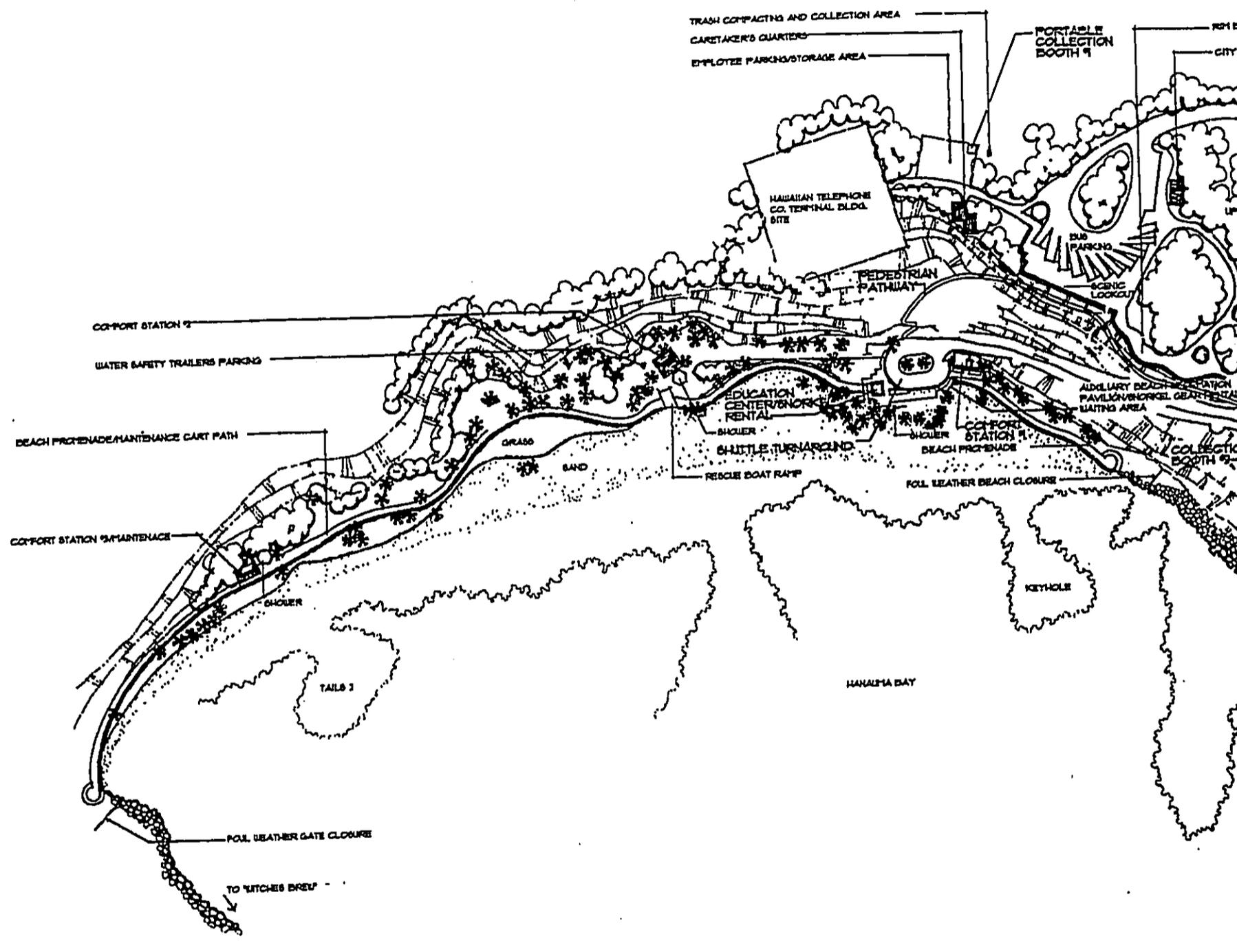
Fig. 2

SITE MAP

**HANAUMA BAY NATURE PRESERVE
REVISED
ENVIRONMENTAL ASSESSMENT**

Prepared for:
CITY AND COUNTY OF HONOLULU
DEPARTMENT OF PARKS AND RECREATION

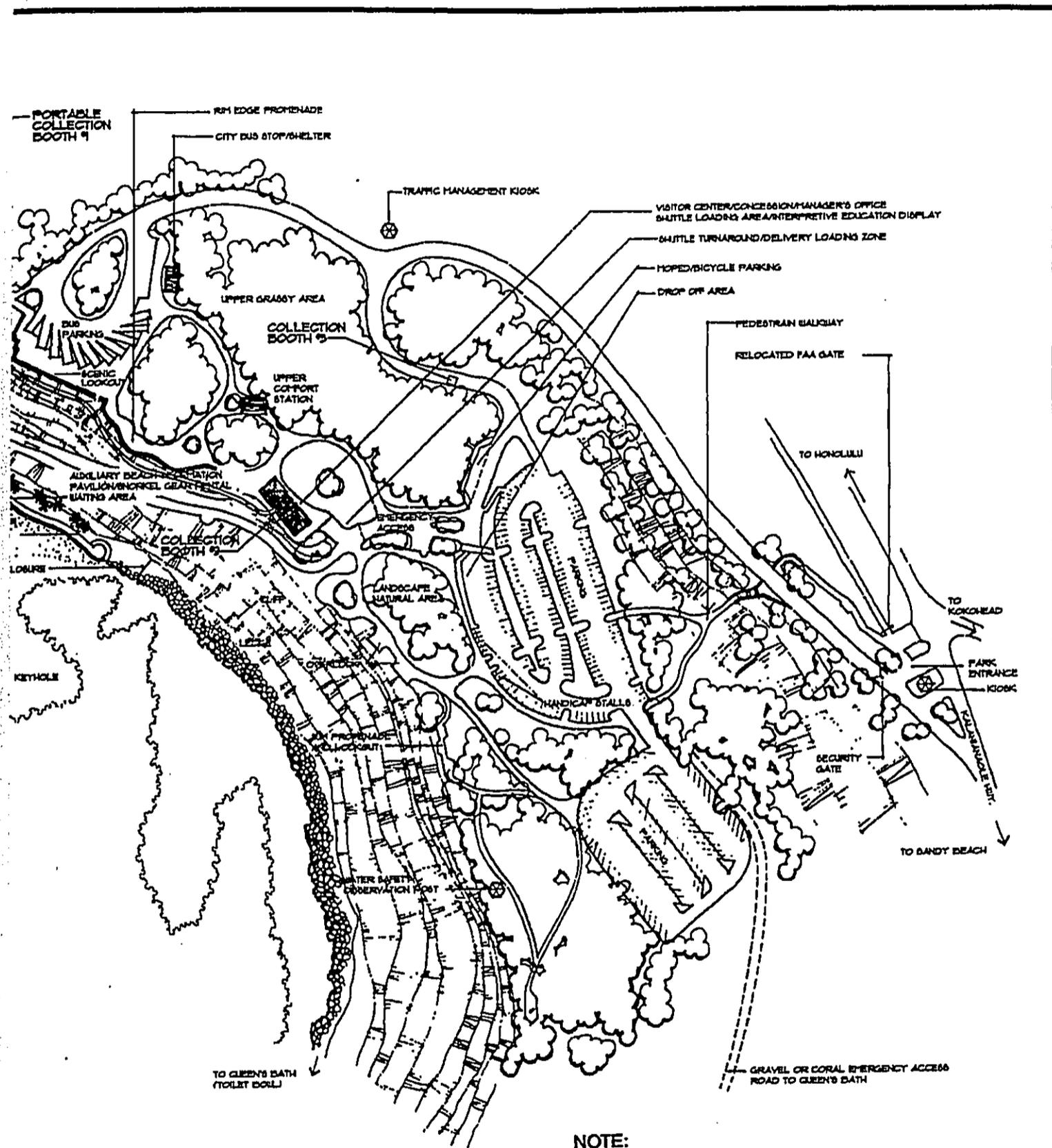
Prepared by:
Wilson Okamoto & Associates, Inc.




Not to Scale
 February 28, 1992 (REVISED SEPTEMBER 13, 1996)

HANAUMA BAY NATURE PRESERVE
REVISED
ENVIRONMENTAL ASSESSMENT

Fig. 3
SITE DEVELOPMENT PLAN



NOTE:
 Proposed modifications to the 1992
 Hanauma Bay Master Plan are indicated in bold type.

Fig. 3
ELOPMENT PLAN

Prepared For: **City and County of Honolulu
 Department of Parks and Recreation**

Prepared By: **Wilson Okamoto & Associates, Inc.**



HANAUMA BAY NATURE PRESERVE
REVISED
ENVIRONMENTAL ASSESSMENT

Fig. 4
EXISTING FACILITIES

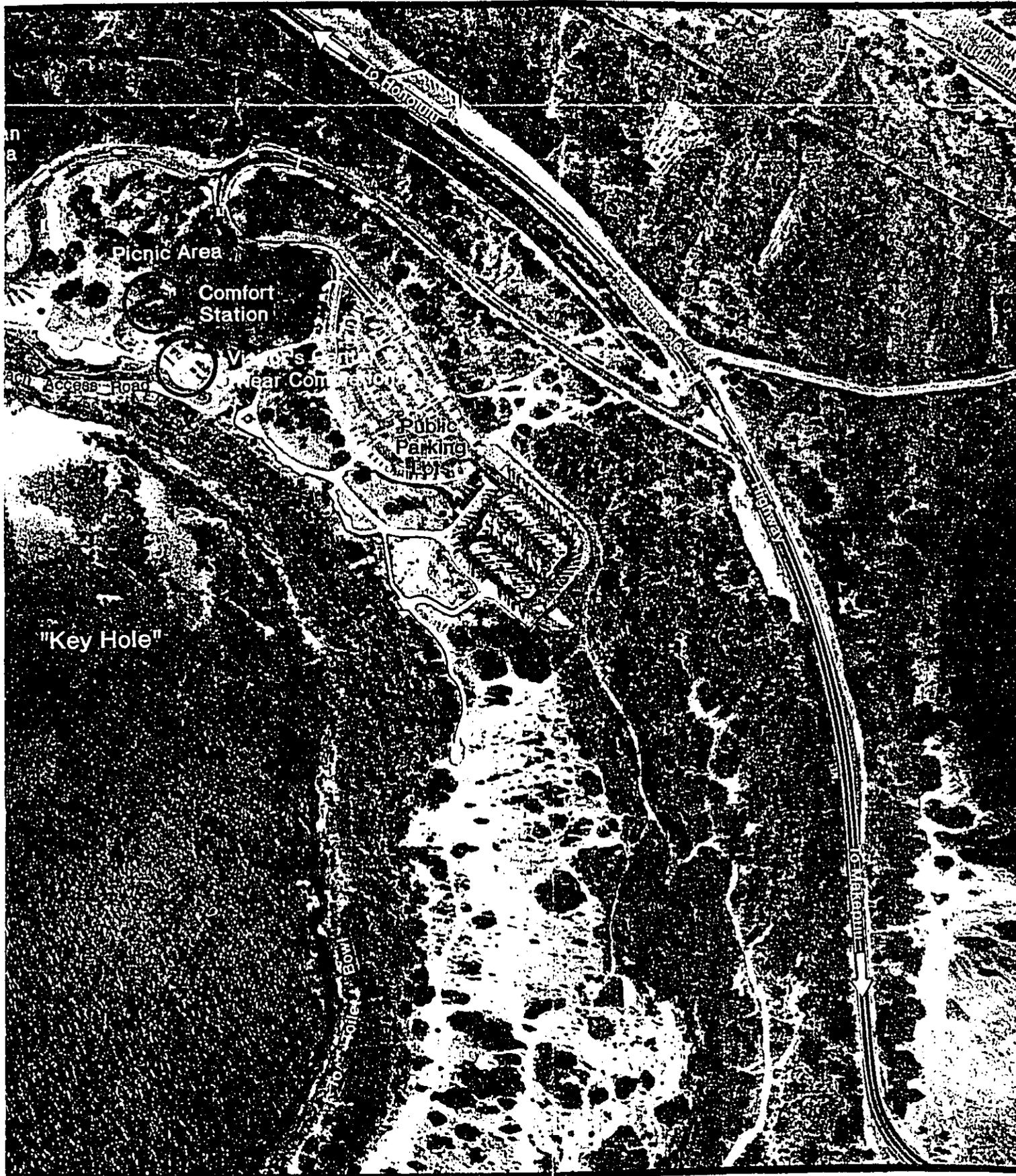


Fig. 4
STING FACILITIES

City and County of Honolulu
Department of Parks and Recreation
Wilson, Okamoto & Associates, Inc.

1. Recent Improvements

Upper Park

- a. **Visitor center/concession facility and shuttle turnaround**
A visitor center/concession facility has been constructed to establish the upper preserve as the focal point for sightseeing, promoting the educational aspect of the nature preserve theme and controlling lower preserve use. All visitors entering the lower preserve must pass through the visitor center, thus allowing preserve management to control access to the lower preserve. A food concession facility has been constructed adjacent to the visitor center but has yet to become operational.
- b. **Parking Reconfiguration**
The parking lot has been reconfigured to include a total of eight handicapped parking stalls, in compliance with parking standards. The passenger loading/unloading zone has been relocated and a moped/bicycle parking area has been constructed.
- c. **Upper Comfort Station**
The upper comfort station has been replaced and upgraded due to the higher volume of preserve users which are anticipated at the upper preserve.
- d. **Caretakers' Quarters**
A new caretakers quarters has been constructed in the upper preserve, next to the commercial vehicle parking area. The old caretakers' quarters located in the lower preserve is scheduled to be demolished.
- e. **Staff Parking Lot**
A parking lot has been constructed for City employees, security personnel, maintenance personnel, lifeguards and volunteers.
- f. **Pedestrian Walkway from Kalaniana'ole Highway**
A portion of the pedestrian walkway from Kalaniana'ole Highway to the upper preserve has been completed.

Lower Preserve

- a. **Comfort Station #2**
Comfort station #2, located in the lower preserve, has been renovated.
- b. **Comfort Station #3**
Comfort Station #3, located in the lower preserve, has been renovated.

2. Future Improvements - Phase I

a. Construct Traffic Management Kiosks

The traffic management kiosks will be constructed immediately upon approval of the fee system. The kiosks will serve as a collection point for fees and are also needed to provide shelter from the sun for personnel to maintain vehicular traffic control throughout the day.

b. Demolish Old Beach Pavilion/Concession Facility

The old beach pavilion/concession facility in the lower preserve will need to be demolished before improvements can be made to the shuttle turnaround area.

c. Demolish and Reconstruct Comfort Station #1

Comfort Station #1 (located adjacent to the proposed shuttle turnaround area) will also need to be demolished prior to any improvements for the shuttle turnaround areas. The new building will replace the existing facility which is inadequate, poorly lit, and cramped. The current proposal is to site the replacement comfort station east of the proposed shuttle turnaround area where it will continue to serve the most heavily used portion of the beach.

d. Construct shuttle turnaround area with Emergency Ramp

The configuration of the proposed turnaround area has been slightly modified. The currently proposed turnaround area is slightly elongated to allow for the simultaneous operation of two shuttle vehicles. Design will comply with standards to accommodate all emergency vehicles.

e. Construct Auxiliary Beach Information Pavilion/Snorkel Gear Rental Concession

The proposed location of this facility has been changed from the east side of the turnaround to the west side. This facility is accessory to the function of the main visitor center recently completed in the upper preserve. The facility will be used to disseminate beach information and house a snorkeling gear rental concession. A lifeguard office will also be accommodated. No food concession will be housed in this facility.

3. Future Improvements - Phase II

The primary objective of Phase II is to implement the proposed improvements needed to formalize existing control over vehicular access into the preserve and improve pedestrian safety on access roads.

a. Reconstruct Entrance

At the preserve's entrance, current vehicular access management activities will be formalized and facilitated through well-designed traffic control including re-striping and construction of traffic islands.

b. Construct Pedestrian Walkway from Kalia Highway

A pedestrian walkway from the highway is needed for safety because the existing informal trails are unsafe and their use cannot be effectively deterred. A portion of the walkway has been completed.

c. Construct Separate Beach Access Pedestrian Walkway

The walkway is intended to remove pedestrian traffic from the beach access road for safety reasons. Use of the existing beach access road will be limited to shuttles and other authorized vehicles.

4. Future Improvements - Phase III

Phase III will complete the improvements to Hanauma Bay Nature Preserve as envisioned in the Master Plan.

a. Construct Pedestrian Promenade/Maintenance Path from Shuttle Turnaround area to beach trails at both ends of the beach.

The Promenade/Maintenance Path is intended to facilitate maintenance, provide access for emergency vehicles to the extreme ends of the preserve and accommodate pedestrian traffic.

b. Construct Water Safety Observation Post along cliff's edge in the upper preserve.

A Water Safety Observation Post will be provided as a safety measure. It will be designed to allow surveillance of the entire beach area with minimal visual impact as seen from the lower park.

c. Complete Landscaping Improvements

Appropriate groundcover, irrigation and planting will be provided as required throughout the improved areas of the preserve.

D. Historic Park Usage

Hanauma Bay Nature Preserve serves the entire island of Oahu and is a worldwide visitor attraction. The following discussion focuses on preserve users since they are the most likely to be affected by the proposed policies and improvements.

Preserve visitors can generally be classified into two categories: residents and non-residents. In terms of overall usage, monthly visitor counts in the first six months of 1996 averaged 91,174 as compared to a monthly average of over 140,00 for the first six months of 1991 and a monthly average of 230,174 for the first six months of 1990. The 1990 and 1991 estimates are based on headcounts taken at two-hour intervals by water safety officers at the Preserve while the 1996 average is based on actual visitor counts taken by Preserve personnel. This indicates a reduction of almost 40%, between 1990 and 1991 and a further reduction of 35% between 1991 and 1996. The decline in visitors between 1990 and 1991 can be attributed to implementation of new rules pursuant to the 1990 *Hanauma Bay General Plan* and the corresponding *Hanauma Bay Rules and Regulations*. The decline in visitors between 1991 and 1996 may be due to the implementation of subsequent policies such as restrictions on taxi drop-offs at the preserve, a fee charged to out-of-state visitors, and differences in the method of counting visitors.

Figure 5 contrasts the number of residents visiting the preserve with non-residents in 1975, 1990 and 1996. The 1975 and 1990 counts are based on the annual visitor counts for those years combined with the estimated percentages of residents vs. non-residents from the surveys taken during these years. The 1996 figure is an actual count of residents and visitors who entered the preserve. Figure 5 indicates that the total number of visitors rose by as much as a factor of six between 1975 and 1990 but has dropped significantly due to the implementation of the Hanauma Bay Rules and Regulations and other recent policies intended to limit preserve usage.

1. Resident Preserve Users

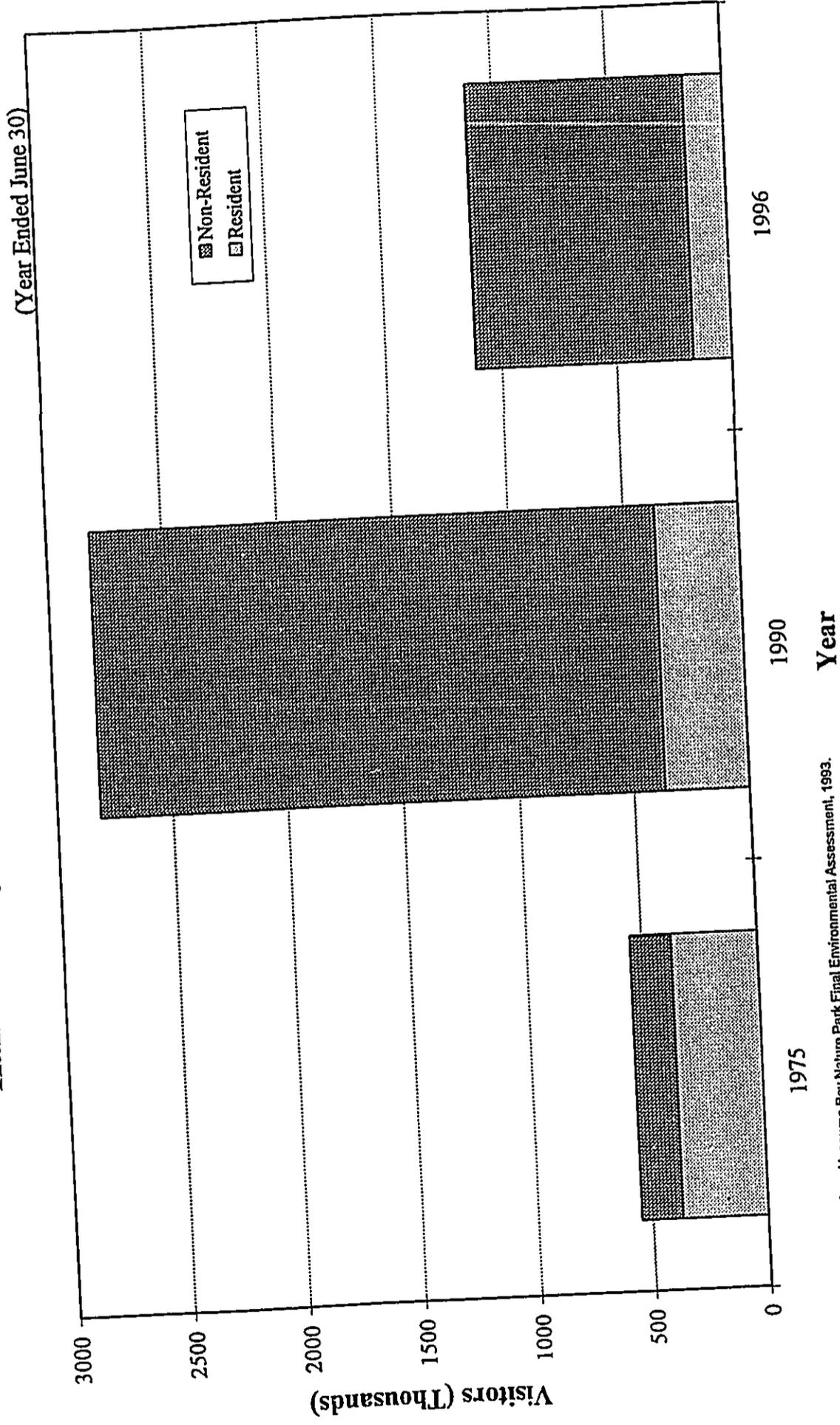
Residents are preserve users who reside in the State of Hawaii. Between 1975 and 1990, there was a significant decrease in the proportion of residents who visited the preserve, based on separate surveys conducted in each respective year. In 1975, 68% of the individuals randomly interviewed were residents of Oahu, as compared to approximately 13% when asked the same question 15 years later. According to the *Hanauma Bay Baseline Users Survey*, completed in 1990 by the University of Hawaii Marine Options Program, the typical Oahu resident lives within the Primary Urban Center, visits the bay monthly, arrives in the morning, on weekends, stays three to five hours, and has no particular preference to the time of year that he (she) visits the bay. Between the 1975 and the 1990 survey, the difference in the typical Oahu resident preserve user was that in 1975, he (she) came only once a year and averaged a stay of less than four hours. This suggests that residents currently are visiting the preserve more frequently and are staying slightly longer.

2. Non-Resident Preserve Users

Non-residents include tourists, military, and out-of-state college students. According to the 1990 survey, over 96% of the non-residents who answered the questionnaire were

Figure 5

Hanauma Bay Resident vs. Non-Resident Visitors



Source: 1975 and 1990 data from Hanauma Bay Nature Park Final Environmental Assessment, 1993.
1995-96 data from City and County of Honolulu Department of Parks and Recreation.

tourists. According to the 1982 *Hanauma Bay Nature Park Master Plan*, tourists comprised a large majority of the non-residents (72%), while military comprised 18% and out-of-state college students comprised 9%. Use of the preserve by non-residents grew dramatically until 1990. Implementation of the *Hanauma Bay Rules and Regulations* in 1992, which strictly controls preserve access by commercial tours, has reduced the numbers of non-resident preserve users significantly.

3. Ordinance 95-36

In May 1995 Ordinance 95-36 was passed by the City Council. The ordinance went into effect on July 1, 1995 and allowed the DPR to assess a \$5 admission fee to the lower preserve on non-residents aged 13 years and over and also assessed a fee ranging from \$5 to \$35 on commercial vehicles entering the preserve. Residents who were able to produce identification were not assessed a fee. The ordinance was in effect for approximately six months before it was rescinded and replaced by a voluntary donation system in January 1996.

Prior to the implementation of Ordinance 95-36, detailed daily counts of residents and non-residents visiting the preserve were not kept. Consequently, the impact of Ordinance 95-36 on preserve usage cannot be conclusively determined. Rescission of the fee did not have an appreciable impact on preserve usage by non-residents. According to records kept by the DPR, between July 1, 1995 and December 31, 1995, the time period that the ordinance was in effect, an average of 2,630 non-residents visited the preserve daily. Between January 8, 1996 to June 30, 1996, after the fee was rescinded, the daily average count of non-resident visitors increased to 2,892.

Chapter III

***PHYSICAL ENVIRONMENT, IMPACTS
AND MITIGATION MEASURES***

III. PHYSICAL ENVIRONMENT, IMPACTS AND MITIGATIVE MEASURES

A. Terrestrial Conditions

1. Climate

The Hawaiian Islands lie in the northern fringe of the Tropic of Cancer, placing them within the belt of northeasterly tradewinds which persist for the major part of the year. On Oahu, trade winds are prevalent for 90 percent of the time between May and October. During these conditions, the subject area in the lee of Koko Head has very little wind. From November to April, Hawaii's winter season, the trades drop in frequency to about 50 percent.

The warmest month in the subject area is September, with average daily temperatures ranging from the low 80s to the mid-90s. The coolest month is February, with average daily temperatures ranging from the low 60s to the upper 70s.

Impacts

The project will have no impacts on climate.

2. Geology and Soils

The Koko Rift is part of a landscape that was added to the southeastern edge of the Koolau Range about 30,000 years ago. It is one of the last areas of volcanic activity on Oahu, forming a linear chain of tuff cones which extends from Koko Head to the offshore islands of Kaohikaipu and Manana (Rabbit Island). Consolidated ash from explosive eruptions formed huge tuff cones makai of the then existing shoreline at Koko Head, Hanauma Bay, and Koko Crater. The crescent shape of Hanauma Bay was formed as the ocean breached the cinder cone known as Hanauma Bay Crater.

According to the US Soil Conservation Service, the crater rim and walls of the bay are classified as rock land (rRK). Rock land is defined as an area in which 25 to 90 percent of the surface is exposed rock. The rock outcrops are mainly basalt and andesite. The soil material associated with rock land is very sticky and plastic and has high shrink-swell potential.

Part of the upper preserve (parking lot and access road) is classified as Koko silt loam (KsB, KsD), varying in slope from 6 to 25 percent. Runoff is medium and the erosion hazard is moderate on soil of the 6 to 12 percent slope range. Soil of the 13 to 25 percent range has medium to rapid runoff characteristics and the erosion hazard is

moderate to severe. The beach is composed of sand, a porous granular composite of coral, shells and calcareous deposits.

Impacts and Mitigation Measures

The reconfigured turnaround area and realigned pedestrian walkway will have negligible impact on the geology and soils of the respective project sites. The proposed project will be designed in consideration of underlying soils to ensure their structural integrity.

3. Topography

From mean sea level (MSL) at the waters of Hanauma Bay, the beach rises gradually to approximately 10 feet above MSL at a slope of 0% to 10%. A steep cliff borders the beach, rising to an elevation of approximately 160 feet above MSL at the parking lots. At the access road near the Kalaniana'ole Highway entrance/exit, the elevation is 225 feet above MSL.

Impacts and Mitigation Measures

The reconfigured turnaround area and realigned pedestrian walkway will have negligible impact on the immediate topography to the extent that the existing grade will be modified to accommodate the two elements.

4. Flood Hazard

Hanauma Bay Nature Preserve lies within Zone D as designated on the Federal Emergency Management Agency's Flood Insurance Rate Map dated September 1987 (Written confirmation by Army Corps of Engineers on October 10, 1996). Flood hazards have not been determined in areas designated Zone D.

Impacts and Mitigation Measures

The reconfigured turnaround area, realigned pedestrian walkway and ticket booths are not susceptible to significant damage from flooding. Necessary drainage to minimize the potential for ponding during storms will be provided. A determination for a flood study will be required by the Department of Land Utilization in conjunction with the design and construction of the structures.

5. Vegetation

Vegetation within the general area consists mainly of introduced Australian saltbush, Bermuda grass, kiawe, haole koa, coconut palms, banyans and hialoa. Native ilima and naupaka also thrive in some portions of the preserve.

Impacts

Any loss of vegetation during construction will be effectively mitigated by landscaping which emphasizes native species of flora adapted to the area. There are no known rare or endangered species of flora in or around areas proposed for construction.

6. Wildlife

The existing fauna observed or known to frequent this area include field mice, rats, mongoose, insects, and lizards. Common birds include pigeons, mynahs, doves, sparrows and cardinals.

Impacts

No significant adverse impacts to the faunal resources are anticipated. There are no known threatened or endangered wildlife species in or around areas proposed for construction.

7. Archaeological/Historical Resources

According to the Department of Land and Natural Resources, State Historic Preservation Division (SHPD), there are no known historic sites in the areas proposed for construction. Their determination of "no effect" rendered in a letter dated November 19, 1992 applies to the master plan modifications proposed in this document.

Impacts and Mitigation Measures

Should any archaeological or historical remains be discovered during construction, all work in the vicinity of the remains will cease and the SHPD immediately notified.

B. Nearshore Water Conditions

1. Shoreline

The shoreline along Hanauma Bay is a combination of rocky coastline and sandy beach. The rocky coastline begins abruptly at each end of the beach, extending past Witch's Brew to Paioluolu Point, and past Toilet Bowl to Palea Point. See aforementioned Figure 1.

Impacts

The reconfigured turnaround area is located near the cliff base and will not result in adverse impacts on the shoreline. None of the proposed development modifications are located in the immediate vicinity of the shoreline. The proximity of the proposed developments to the shoreline will be confirmed upon certification by the State of a shoreline survey, which is anticipated in December 1996.

2. Tsunami and Storm Wave Hazard

According to the Civil Defense Tsunami Inundation maps, the entire lower preserve area, up to the access road, could be inundated in the event of a tsunami. The area includes the sandy beach, the existing food and snorkel concessions, three comfort stations and lifeguard facilities.

Impacts

The reconfigured turnaround area could be inundated in the event of a tsunami. Such facilities, however, are not restricted in such flood prone areas. A determination for a flood study will be required by the Department of Land Utilization in conjunction with the design and construction of the structures.

3. Coastal Water Quality

Concern about declining water quality in the bay due to increased siltation, freshwater runoff and litter have been expressed as early as 1970. In 1988, turbidity, trash and oil films were observed during user survey studies conducted by Wilson Okamoto and Associates, Inc. Soil runoff from the unpaved trafficked areas has also been implicated as a possible cause of increased turbidity in the bay.

While no chemical analysis of water quality was conducted, potential threats to water quality observed in 1988 included:

- Siltation from storm and shower runoff;
- Freshwater mixed with soaps and lotions from open showers;
- Sewage from periodically overflowing cesspools; and
- Cooking oils and other waste from the concession which leach into the bay through cesspools.

The latter two items no longer threaten the water quality of the bay since activation of a new sewage pump system in 1990.

Impacts and Mitigation Measures

In the long term, the proposed policies could have beneficial impacts on coastal water quality. The fees collected will fund a carrying capacity analysis of the Bay which will establish a basis for future preserve management to improve water quality. Moreover, as part of the carrying capacity analysis, ongoing water quality monitoring will be conducted.

No significant impact to marine water quality are anticipated during construction of the modified physical improvements. Appropriate measures will be taken to assure that the potential for soil runoff is minimized. Turbidity and siltation from project-related activities will be contained to the immediate construction vicinity through the use of effective silt containment devices which may include silt fencing, berming, or geotextile fabric. Specific silt containment devices and the method of implementation will be determined by the construction contractor as appropriate to on site conditions at the time of construction. It should be noted that the current Conservation District Use Permit for the Preserve prohibits grading activities during the rainy season. Furthermore, where possible, construction will not be permitted during periods of heavy rainfall.

In addition, the following measures will be implemented to minimize impacts to coral reefs and the marine habitat:

- No project-related activity will take place in the marine environment;
- All project-related materials will be placed or stored in ways to avoid or minimize disturbance to the marine environment;
- All project-related materials will be free of pollutants;
- No contamination of the marine environment such as trash or debris will result from project activities; and
- A contingency plan will be prepared to control accidental spills of petroleum products.

4. Marine Life Habitat

Corals account for a very small percentage of the bottom cover within the nearshore waters of the fringing reef. The consolidated limestone portion of the reef flat is dominated by red coralline alga (*Hydrolithon reinboldii*) and the pink variety (*Porolithon onkodes*), which live among rock surfaces in the backreef depressions. The only coral present in any abundance is the common star coral (*Cyphastrea ocellina*).

Coral cover increases in the -6 to -25 foot range, with total coral cover reaching about 45%. At depths of -25 feet and beyond, corals dominate the bottom, with total coral cover approaching 80%. Dense thickets of finger coral (*Porites compressa*) predominate at these depths, but lobe coral (*Porites lobata*) is fairly abundant.

Diverse and abundant fish inhabit waters of all depths at and behind the fringing reef margin. Common species include butterfly fish (*kikakapu*, *lau-wili-wili*, etc), surgeonfish (*manini*, *palani*, *pualu*), parrotfish (*uhu*), goatfish (*weke*, *moano*), moorish idols (*kihikihi*), wrasse (*hinalea*), damselfish (*'alo'ilo'i*), mullet (*'ama'ama*, *uo-uoa*), trumpetfish (*nuhu*), milkfish (*awa*), threadfin (*moi*), rudderfish (*nenue*), jacks (*papio*, *omilu*) and triggerfish (*humu-humu*). The population of fish species accustomed to the presence of humans in the marine habitat continues to flourish.

Several varieties of sea urchin are present, including the long-spined urchin (*wana*) and the rock-boring urchin (*ina*). Also, sea cucumbers (*lohi*) are found in all areas of the bay, but most notably in quiet flat sections along the reef.

Impacts and Mitigation Measures

In the long-term, the proposed policies would have beneficial impacts on the marine life habitat as they are intended to control preserve usage and foster awareness and respect for marine life at Hanauma Bay through educational programs. Moreover, the fees collected will fund a carrying capacity analysis of the bay which will establish a basis for future preserve management to improve water quality and, hence, the marine environment.

No significant impact on marine water quality and, consequently, on marine life and their habitat are anticipated during construction of the reconfigured turnaround area and realigned pedestrian walkway. Appropriate measures aforementioned in the section on Coastal Water Quality will be taken during construction to assure that the potential for runoff entering the marine environment is minimized.

C. Roadways and Utilities

1. Roadway Access

The single roadway into Hanauma Bay Nature Preserve is off of Kalaniana'ole Highway. The highway is the main traffic arterial which serves East Honolulu. It is designated as a Federal Aid Primary Highway. Where it intersects the access road, the highway is a two-lane undivided road. Use of the highway is generally higher during weekends, holidays and special events such as bodysurfing or body boarding contests at Makapuu or Sandy Beach Parks.

A field investigation of traffic conditions was conducted by Wilson Okamoto & Associates, Inc. on August 21 and 22, 1996. Findings from the investigation are summarized as follows and included in its entirety as Appendix B. The investigation estimated that over 12,000 vehicles a day use Kalaniana'ole Highway near the preserve entrance, with peak usage occurring by about 9:00 a.m. The investigation also found that while circulation within the preserve is adequate, improvements could be made at the entrance to the preserve from Kalaniana'ole Highway.

Impacts and Mitigation Measures

Traffic queuing problems currently experienced along Kalaniana'ole Highway at Preserve opening times are anticipated to improve with the implementation of the following recommendations: 1) Providing advance warning to motorists along Kalaniana'ole Highway when the preserve entrance is closed; 2) Segregate non-homogenous flows by providing separate turning lanes into the preserve; 3) Provide a designated drop off area near the preserve entrance; and 4) A transportation concession is currently under consideration whereby visitors from Waikiki could be shuttled to Hanauma Bay.

The concession has been proposed as a possible means of reducing the number of taxis and limousines entering the preserve. In addition, the public bus route from Waikiki to Hanauma Bay has been proposed to be eliminated upon implementation of the transportation concession. The total number of passengers transported by the concession per day would be limited to prevent overuse of the lower preserve. In the event this option is pursued as a mitigative measure, the potential impacts to transportation and access to the Preserve will be subject to administrative review.

2. Water Service

Koko Head 405 Reservoir, with a capacity of 0.2 million gallon, services Hanauma Bay Nature Preserve, as well as sections of the Portlock community. Water is supplied to the preserve's facilities via an 8-inch line, approximately 2,400 feet long, which transects the west ridge of Hanauma Bay.

Impact

The reconfigured turnaround area and realigned pedestrian walkway will not impact demand for water. In the long-term if preserve usage is reduced, the demand for water will decline, thereby reducing impact on the provision of this service.

3. Electric and Telephone Service

Both telephone and electric service are available at the Preserve. Overhead lines run down the cliff from the upper preserve to the concession building. They provide service to all buildings and comfort stations. There are four public phone booths at the preserve; two near Comfort Station #1 at the base of the access road in the lower preserve, and two next to the comfort station in the upper preserve. There are nine business telephones; one at the snorkel concession, one at the lifeguard station, one in the caretaker's house, one at the food concession, and five in the visitor center.

Impact

The reconfigured turnaround area and realigned pedestrian walkway will not impact demand for electric and telephone service. In the long-term, if preserve usage is reduced, the demand for electricity and telephone service may also decline, thereby reducing impact on the provision of these services.

4. Wastewater

A wastewater collection system serves the Preserve's three lower and one upper preserve comfort stations. Wastewater is pumped to Kalaniana'ole Highway where it is directed into the regional wastewater system to be processed at the Hawaii Kai Sewage Treatment Plant located mauka of Sandy Beach. Following secondary treatment, effluent from the plant is discharged through an outfall 3,000 feet offshore in 35 feet of water.

Impacts

The reconfigured turnaround area and realigned pedestrian walkway will not impact wastewater facilities. In the long-term if preserve usage is reduced, the quantity of wastewater may also decline, thereby reducing impact on the provision of this utility.

5. Drainage

Storm runoff at the upper preserve is directed into retention basins in the picnic area where it percolates into the ground or evaporates. During heavier storms, overflow from the retention basins enters drains which direct flows over the cliff into the lower preserve where the runoff percolates into the porous sand behind Comfort Station #1. This is the natural drainage course from the upper preserve into the lower preserve. During the heaviest storms, the runoff may flow overland to the shore, eroding gullies through the beach.

Impacts

The pedestrian walkway and turnaround area will marginally increase storm runoff by creating a net increase in non-porous surfaces. These improvements will not alter existing drainage patterns and are not anticipated to have a significant impact on runoff quality or quantity.

Chapter IV

PLANS, POLICIES, AND PERMITS

IV. PLANS, POLICIES, AND PERMITS

The proposed Hanauma Bay Nature Preserve development plan modifications and fee system are in consonance with various land use plans, policies and regulatory controls.

A. State of Hawaii

The Hawaii State Plan, State Functional Plans, and the State Land Use Law provide guidelines for development within the State of Hawaii. Among the diverse statements contained in these documents are the following:

1. Hawaii State Plan

The Hawaii State Plan establishes a statewide planning system that provides goals, objectives and policies which detail priority directions and concerns of the State of Hawaii. The proposed project supports and is consistent with the following State goals, objectives, policies and priority guidelines:

[§226-23] Objectives and policies for socio-cultural advancement--leisure. (a) Planning for the state's socio-cultural advancement with regard to leisure shall be directed towards the achievement of the objective of the adequate provision of resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations.

(b) To achieve the leisure objective, it shall be the policy of this State to: (3) Enhance the enjoyment of recreational experiences through safety measures, educational opportunities, and improved facility design and maintenance.

[§226-11] Objectives and policies for the physical environment--land-based, shoreline, and marine-resources. (a) Planning for the State's physical environment with regard to land-based, shoreline, and marine-resources shall be directed towards achievement of the following objectives: (1) Prudent use of Hawaii's land-based, shoreline and marine resources; and (2) Effective protection of Hawaii's unique and fragile environmental resources.

(b) To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to: (2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems; (3) Take into account the physical attributes of areas when planning and designing activities and facilities; (8) Pursue compatible relationships among activities, facilities, and natural resources, especially within shoreline areas; and (9) Promote greater accessibility and prudent use of the shoreline for public recreational, educational, and scientific purposes.

[§226-13] Objectives and policies for the physical environment--land, air, and water quality. (a) Planning for the State's physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives: (1) Maintenance and pursuit of improved quality in Hawaii's land, air, and water resources; and (2) Greater public awareness and appreciation of Hawaii's environmental resources.

(b) To achieve the land, air, and water quality objectives, it shall be the policy of this State to: (2) Promote the proper management of Hawaii's land and water resources; and (3) Promote effective measures to achieve desired quality in Hawaii's surface, ground, and coastal waters.

[§226-8] Objective and policies for the economy--visitor industry. (a) Planning for the State's economy with regard to the visitor industry shall be directed towards the achievement of the objective of a visitor industry that constitutes a major component of steady growth for Hawaii's economy.

(b) To achieve the visitor industry objective, it shall be the policy of this State to: (2) Ensure that visitor industry activities are in keeping with the social, economic and physical needs and aspirations of Hawaii's people; (3) Improve the quality of existing visitor destination areas; and (5) Ensure that visitor facilities and destination areas are carefully planned and sensitive to existing neighboring communities and activities.

2. State Functional Plans

The Statewide planning system requires the preparation of State Functional Plans which are approved by the Governor. The fourteen State Functional Plans implement the goals, objectives, policies and priority guidelines of the Hawaii State Plan, as mandated by Chapter 226, Hawaii Revised Statutes (HRS). The plans act in a coordinated fashion with County General Plans and Development Plans, thus providing the detailed linkage between State programs and State policy.

a. Conservation Lands Functional Plan

The State Conservation Lands Functional Plan addresses the impacts of population growth and economic development on the natural environment. It provides a framework for the protection and preservation of lands and shorelines. The proposed project, which is located on lands designated as Conservation, is consistent with the following objectives and policies:

Objective IIC: *Enhancement of natural resources.*

Policy IIC (2): *Expand and enhance outdoor recreation opportunities and other resource uses.*

Objective IID: *Appropriate development of natural resources.*

Policy IID (1): *Develop and expand resources to protect natural shorelines and wilderness recreation areas.*

Policy IID (3): *Develop recreational and archaeological resources on the shoreline and mauka areas.*

Objective IIIA: *Expansion and promotion of a public conservation ethic through education.*

Policy IIIA (1): *Develop and implement conservation education programs for the general public and visitors.*

Policy IIIA (2): *Develop and implement information and educational programs directed toward specific areas and users of lands and natural resources.*

b. **Recreation Functional Plan**

The State Recreation Functional Plan assesses present and potential demand and supply of outdoor recreation resources to guide State and County agencies in acquiring or preserving lands of recreational value, providing adequate recreation facilities and programs, and ensuring public access to recreation areas. The proposed project is consistent with the following objectives and policies:

Objective A: *Achieve a pattern of land and water resources usage which is compatible with community values, physical resources, recreation potential, and recreation uses which support comprehensive public land use policies.*

Policy A (2): *Ensure that intended uses for a site respect community values and are compatible with the area's physical resources and recreation potential.*

Policy A (3): Emphasize the scenic and open space qualities of physical resources and recreation areas.

Objective C: Provide a comprehensive range of opportunities which fulfill the needs of all recreation groups effectively and efficiently.

Policy C (1): Maintain an adequate supply of recreation facilities and programs which fulfill the needs of all recreation groups.

Policy C (2): Maximize facility and program effectiveness through adequate maintenance and staffing.

Objective E: Provide adequate recreation opportunities which meet expressed needs and are available as a result of the cumulative effectiveness and cooperation of recreation suppliers and users.

Policy E (3): Coordinate visitor and resident recreation interests to achieve compatible recreation usage.

c. **Tourism Functional Plan**

The State Tourism Functional Plan acknowledges the importance of the visitor industry in Hawaii while at the same time recommending development of other industries to diversify the State's economic base. It also suggests measures for protection of those resources upon which the industry itself depends -- the natural beauty and environment of the islands, the richness and diversity of cultures, the well-being of people and communities and the quality of the physical infrastructure. The proposed project may have the effect of reducing visitor use of the lower preserve. In the long-term, however, the quality of the visitor experience in the lower preserve will be enhanced. Objectives and policies relating to visitor usage of the preserve include the following:

Objective I.A: Development, implementation and maintenance of policies and actions which support the steady and balanced growth of the visitor industry.

Policy I.A.1: Identify and ensure a rate of industry growth that is consistent with the social, physical and economic needs of the residents and the preservation of Hawaii's natural environment.

Objective II.A: Development and maintenance of well-designed visitor facilities and related developments which are sensitive to neighboring communities and activities, and adequately serviced by infrastructure and support services.

Policy II.A.1: Maintain high standards of overall quality of existing visitor destination and attraction areas.

Policy II.A.7: Improve the quality of existing parks and recreational areas, and ensure that sufficient recreational areas -- including scenic byways and corridors -- are available for the future.

3. State Land Use Law

Pursuant to the Hawaii Land Use Law (Chapter 205, HRS), all lands in the State are classified by the State Land Use Commission (LUC) into four land use districts: Urban, Agriculture, Conservation and Rural. The proposed project is located in a Conservation district.

Any use of lands, including submerged lands within the State's Conservation district is subject to review pursuant to Chapter 183, HRS and Title 13, Chapter 2, Administrative Rules of the Department of Land and Natural Resources (DLNR). Hanauma Bay lies within subzone P, as established by DLNR. Facility improvements will require an amendment to the Preserve's existing Conservation District Use Permit (Written correspondence from DLNR dated November 4, 1996).

B. City and County of Honolulu

City and County plans and policies governing the proposed improvements include the Oahu General Plan, Development Plan (DP), and Land Use Ordinance. The Special Management Area (SMA) Use Permit and Shoreline Setback Variance are City and County approvals which may be required for the proposed improvements.

1. Oahu General Plan

The Plan specifies long-range objectives and policies to guide both the quantity and quality of future growth on Oahu. The Plan is a statement of the long-range social, economic, environmental, and design objectives for the general welfare and prosperity of the people of Oahu. The General Plan has several objectives and policies pertaining to the Honolulu County's natural environment, culture and recreation. The proposed project is consistent with and supports the following General Plan objectives and policies:

a. Natural Environment

Objective A: Protect and preserve the natural environment.

Policy 6: Design surface drainage and flood-control systems in a manner which will help preserve their natural settings.

Policy 10: Increase public awareness and appreciation of Oahu's land, air and water resources.

Objective B: Preserve and enhance the natural monuments and scenic views of Oahu for the benefit of both residents and visitors.

Policy 1: Protect the Island's well-known resources: its mountains and craters; forests and watershed areas; marshes, rivers, and streams; shoreline, fishponds, and bays; and reefs and offshore islands.

Policy 4: Provide opportunities for recreational and educational use and physical contact with Oahu's natural environment.

b. Culture and Recreation

Objective D: Provide a wide range of recreational facilities and services that are readily available to all residents of Oahu.

Policy 2: Develop and maintain a system of regional parks and specialized recreation facilities.

Policy 5: Encourage the State to develop and maintain a system of natural resource-based parks, such as beach, shoreline, and mountain parks.

Policy 8: Encourage ocean and water-oriented recreation activities that do not adversely impact on the natural environment.

Policy 12: Provide for safe and secure use of public parks, beaches, and recreation facilities.

2. Development Plan (DP)

Eight DP's were established by the City and County of Honolulu to provide detailed schemes for implementing and accomplishing the objectives and policies of the General Plan. The DP's guide the desired sequence, patterns and characteristics of future development. The project site is located within the East Honolulu Development Plan area which includes the area from Aina Koa Ridge to Makapuu Point and is identified as part of Oahu's urban fringe by the General Plan. The DP Land Use (DPLU) Map for East Honolulu indicates that Hanauma Bay Nature Preserve lies within the Preservation area.

- Consistency with Common Provisions

The proposed project is consistent with the DP Common Provisions established for general principles and controls governing parks, recreation and preservation areas. The provisions emphasize use of the natural preserve for medium or low intensity recreation activity.

- Consistency with Special Provisions

The proposed project is consistent with East Honolulu DP area Special Provisions for open space and public views. The building height limit is 25 feet in the Preservation area and the proposed project is in full compliance.

- Consistency with DP Public Facilities (DPPF) Map for East Honolulu

This map identifies public and private proposals for parks, streets and highways, major public buildings, utilities, terminals and drainage. The East Honolulu DPPF identifies Hanauma Bay Nature Preserve as an area for park modification to be implemented within six years (Department of Land Utilization Staff Communication, September 25, 1996).

3. Land Use Ordinance (LUO)

The LUO and accompanying maps define the allowable uses of land zoned for residential, apartment, business, resort, industrial, agricultural, preservation, and mixed uses. The Preserve is zoned P-1, Restricted Preservation, as are all lands within the State Conservation district. Within this district, all uses, structures, and development standards shall be governed by the appropriate state agency; in this case, DLNR.

4. Hanauma Bay Nature Park Master Plan

The *Hanauma Bay Nature Park Master Plan*, completed in May 1992, is the most recent effort to guide management of Hanauma Bay toward the protection of the natural resource and fulfillment of its recreational potential. It serves as the guidebook for implementation of the proposed improvements. The plan includes an inventory of existing park resources and facilities, identifies management concerns, and states the goals, objectives and policies for future park management and development. The plan also includes recommendations for preserve improvements, modifications to which are addressed by this environmental assessment.

Seven sets of objectives with supporting policies were recommended in the 1992 *Hanauma Bay Nature Park Master Plan*. These objectives and policies establish guidelines for the proposed physical park improvements, as well as for Preserve management and are stated below:

Objective 1: Limit overall park user volumes as a means of controlling impacts on natural resources and park facilities.

Policies:

Continue to limit the number of park users by controlling access in a manner which favors public use of the park over commercially promoted uses.

Continue to limit park hours and days of operation, again favoring public use over commercially promoted uses.

Design park facilities to accommodate appropriate levels of usage in the various parts of the park.

Objective 2: Better match intensities of park usage with available park resources.

Policies:

Provide facilities to better accommodate sightseeing in the upper park, including commercially promoted sightseeing tours which do not offer activities in the lower park.

Design park facilities in the lower park to accommodate limited park usage and to encourage shorter stays.

Use design features, including roads, pathways and landscaping, to maintain the desired distribution of park users and to optimize the match between the intensity of use and capacity of resources to accommodate such use.

Establish a public information program with a broad coverage to inform park users of the range of activities and locations to accommodate them as an alternative to "following the crowd".

Objective 3: Provide new park facilities and improve existing facilities to reduce their impact on natural park resources.

Policies:

Reduce the potential for storm runoff and erosion through roadway, parking lot, shower facility and drainage improvements.

Provide walkways to reduce trampling of plants and erosion associated with foot traffic over unimproved areas.

Connect all park sewage systems with the sewage collection, treatment, and disposal system serving the area.

Design all park facilities to complement scenic resources.

Objective 4: Achieve safer participation in park activities.

Policies:

Establish a public information program with a broad coverage to inform park users of park hazards and safety tips.

Continue to improve the sign warning system to dissuade park users from engaging in potentially hazardous activities.

Provide permanent and temporary facilities to separate park users from vehicular traffic and restrict access to hazardous areas of the park.

Provide improved facilities and continue to improve the functions of the lifeguard system.

Objective 5: Foster park user respect for natural resources and park facilities.

Policies:

Establish a public information program with a broad coverage to inform park users of sound conservation practices in park usage.

Develop and enforce park rules governing activities with potentially adverse impacts on the park's natural resources.

Objective 6: Develop informational bases on which to formulate future park policy.

Policy:

Conduct studies to answer persistent questions on the role of Hanauma Bay Nature Park, the effects of park usage on its natural ecosystems, and coordination of diverse management responsibilities over its natural resources.

Objective 7: Establish public education and awareness as a primary purpose of park policy.

Policies:

Provide facilities and supporting services for public awareness and education-related activities uniquely suited to the resources of Hanauma Bay Nature Park, including its geology, terrestrial biology and marine ecosystems.

De-emphasize provision of facilities and services for recreational activities such as picnicking, sunbathing, and swimming which can be accommodated at other public parks.

5. Special Management Area Permit (SMA)

The State Coastal Zone Management (CZM) Law (Chapter 205A, Hawaii Revised Statutes) charged the Counties with designating and administering Special Management Areas (SMA) along the State's coasts. Any "development," as defined by the Law, within the SMA requires an SMA Use Permit. Within the City and County of Honolulu, the SMA Use Permit is administered by the Department of Land Utilization and the decision on its issuance is rendered by the City Council, pursuant to Ordinance No 84-4. Issuance of the SMA Use Permit is based on a development proposal's consistency with the objectives, policies and guidelines of the CZM law which encompass recreational resources, historic resources, scenic and open space resources, coastal ecosystems, economic uses, coastal hazards, and managing development. Hanauma Bay Nature Preserve is located within the SMA (see Figure 6), and an SMA permit has been approved for the improvements shown in the 1992 Hanauma Bay Master Plan. The proposed modifications to the 1992 Master Plan will be addressed through a modification of the existing SMA permit.

A separate SMA permit will be processed for the establishment of the proposed fee system. This Revised Environmental Assessment supports the SMA application.

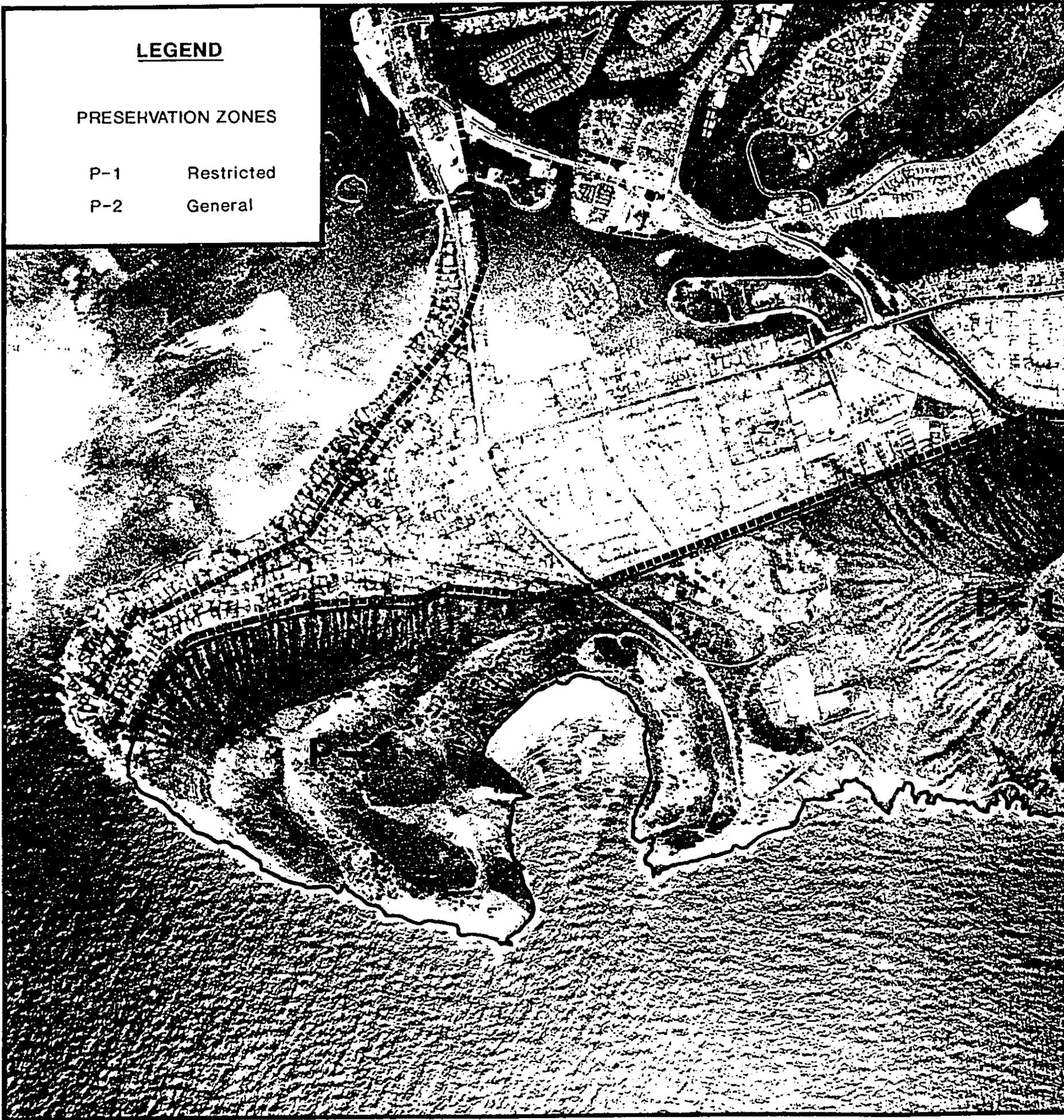
6. Shoreline Setback Variance (SSV)

The City and County Department of Land Utilization administers this variance under its shoreline setback regulations. The shoreline is defined as "the upper reaches of the wash of waves, other than storm and tidal waves, usually evidenced by the edge of vegetation growth, or the upper line of debris left by the wash of waves." The setback area is a 40-foot strip of land mauka of the shoreline. The State's Shoreline Setback Law, (Chapter 205A, HRS, Part III) prohibits virtually any development or related activity including the removal of sand, rocks and soil from the shoreline setback area. However, the county may authorize a variance for construction planned in the setback area when such construction is determined to be in the public interest or when hardship will be caused to the applicant if the request is denied. None of the proposed modifications to the development plan are believed to encroach in the shoreline setback area. This will be confirmed upon certification by the State of a shoreline survey, anticipated in December 1996.

LEGEND

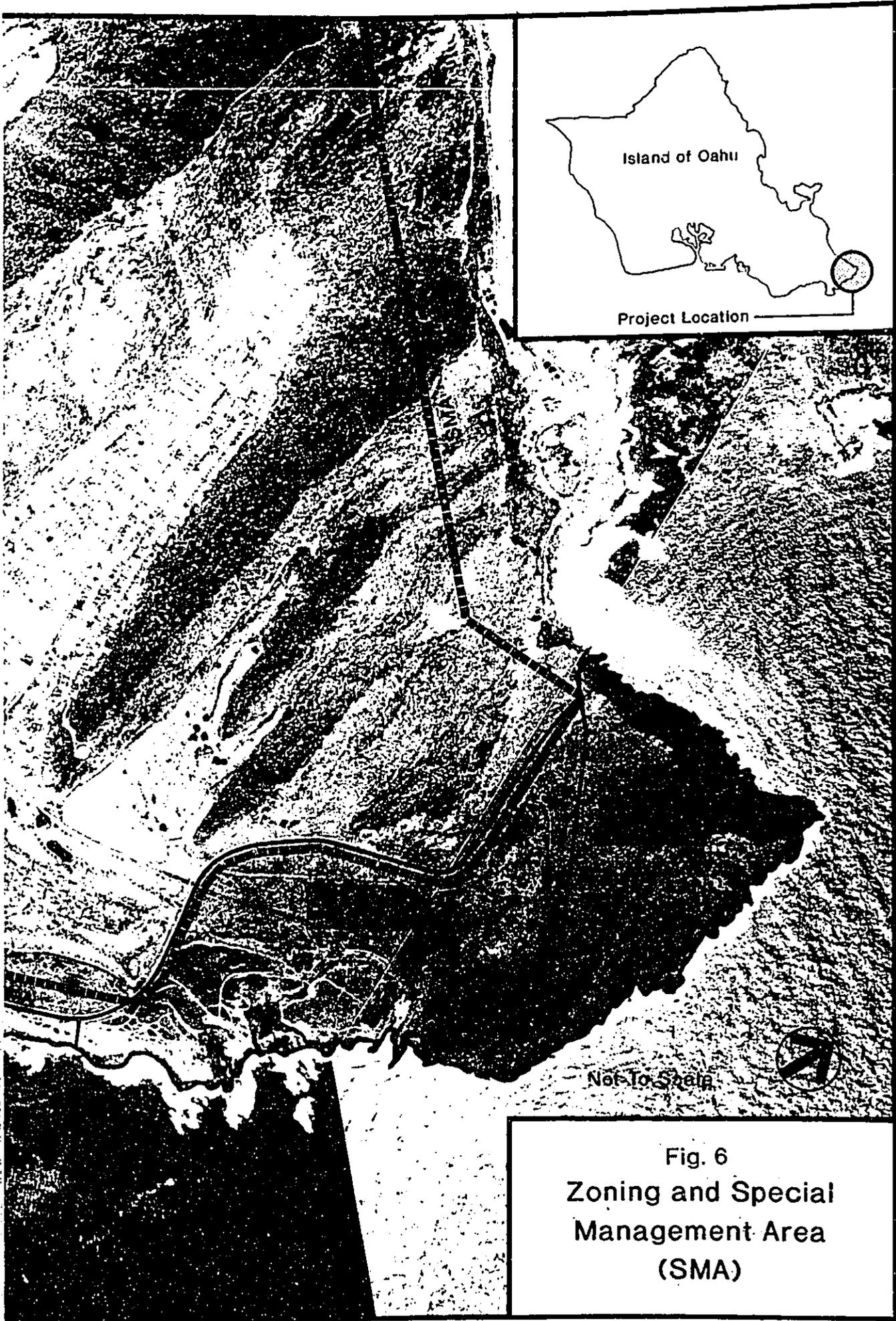
PRESERVATION ZONES

- P-1 Restricted
- P-2 General



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Chapter V

ALTERNATIVES TO THE PROPOSED ACTION

V. ALTERNATIVES TO THE PROPOSED ACTION

The *Hanauma Bay Nature Park Master Plan* (May 1992) represents the culmination of a planning process involving the review of preserve user surveys and observations spanning a 15-year period and extensive consultation with the DPR. The improvements are proposed within a context of goals, objectives and policies articulated in the master plan which reflects the desires and vision of the City and County administration regarding the future of the preserve as indicated in the prior environmental assessment. The proposed plan modifications including the reconfigured shuttle turnaround and pedestrian pathway are a result of more detailed design studies.

With respect to the proposed user fee, the Honolulu City Council held extensive discussions and received public testimony on numerous occasions considering a variety of alternatives before approving the current proposal.

The "no action" alternative could maintain the current voluntary donation system or revert to a no-fee system. While the voluntary donation system has been effective to some degree in generating revenues, the amount generated has been significantly less than that projected for the proposed fee system. Without the proposed fee system, the Preserve would continue to rely upon appropriations from the City for the operation, maintenance, and improvement of the Preserve. Projects such as new educational programs and the proposed carrying capacity study for the bay would probably be difficult to fund.

Chapter VI
DETERMINATION

VI. DETERMINATION

A draft environmental assessment was prepared and distributed for review in accordance with the consultation process of chapter 343, Hawaii Revised Statutes. Based on the significance criteria set forth in section 11-200-12 of Title 11 Chapter 200, the DPR has determined that the improvements will have no significant adverse impact on the environment, and that an Environmental Impact Statement is not required.

A. Findings and Reasons Supporting the Determination

Possible short-term impacts are associated with construction activities and include potential traffic, air quality and noise impacts, and negligible impacts to soil and topography. No significant impact to marine water quality are anticipated during construction of the modified physical improvements, however, appropriate measures will be taken to assure that the potential for soil runoff is minimized. No impacts to flora or fauna resources is expected.

With regard to the Preserve's infrastructure systems, except for the improved turnaround area and pedestrian pathway, no impacts are anticipated on water, wastewater, and drainage facilities. Marginal increases in storm runoff may result from a net increase in non-porous surfaces, however, existing drainage patterns will not be affected and are not anticipated to have a significant impact on runoff.

In the long term, the proposed policies could have beneficial impacts on coastal water quality. The fees collected will fund a carrying capacity analysis of the Bay which will establish a basis for future preserve management to improve water quality. Other benefits may include increased user satisfaction, improved public safety, restored natural resources, and improved traffic and access conditions. These, in turn, will promote the educational/interpretive value of the preserve.

Therefore, the effect of the proposed improvements on the environment is determined to be insignificant. Construction and use of the Preserve in its improved condition will not:

1. Involve a loss or destruction of any natural or cultural resource;
2. Curtail the range of beneficial uses of the environment;
3. Conflict with the State's long-term goals or guidelines as expressed in Chapter 344, HRS;
4. Substantially affect the economic or social welfare of the community or state;
5. Substantially affect public health;
6. Involve substantial secondary effects, such as population changes or infrastructure demands;
7. Involve a substantial degradation of environmental quality;

8. Cumulatively have considerable effect upon the environment;
9. Substantially affect a rare, threatened or endangered species or its habitat;
10. Detrimentially affect air or water quality or ambient noise levels; or
11. Affect or is likely to suffer damage by being located in an environmentally sensitive area, such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, freshwater area, or coastal waters.
12. Substantially affect scenic vistas and viewplanes identified in county or state plans or studies; or
13. Require substantial energy consumption.

Chapter VII
CONSULTATION

VII. CONSULTATION

A. Pre-Assessment Consultation

The following agencies were consulted during the pre-assessment phase of the Environmental Assessment:

State of Hawaii

Department of Land and Natural Resources

City and County of Honolulu

Department of Land Utilization
Department of Planning
Department of Transportation Services
Department of Wastewater Management

B. Draft EA Consultation

The agencies, organizations, and individuals listed below were sent copies of the Revised Draft EA with a request for their comments on the project. Of those who formally replied, some had no comments while others provided substantive comments as indicated by the ✓ and ✓✓, respectively. All written comments and responses are reproduced herein.

Federal Agencies

- ✓✓ US Army Corps of Engineers -- Pacific Ocean Division
- ✓✓ US Department of the Interior -- Fish and Wildlife Service
National Park Service
US Department of Agriculture -- Natural Resource Conservation Service

State of Hawaii

- ✓ Department of Education
- ✓ Department of Transportation -- Harbors
- ✓ Department of Business, Economic Development
and Tourism
- ✓ Department of Health
- ✓✓ Department of Land and Natural Resources -- State Historic Preservation Division
- ✓✓ Commission on Persons with Disabilities
- ✓✓ Department of Land and Natural Resources -- Land Management Division

State of Hawaii (continued)

- ✓✓ Office of Environmental Quality Control
- ✓✓ University of Hawaii -- Environmental Center
- ✓✓ Department of Transportation
- Department of Health -- Environmental Management
- Office of Hawaiian Affairs
- Office of Planning
- University of Hawaii -- Water Resources Research Center

City and County of Honolulu

- ✓ Fire Department
- ✓ Building Department
- ✓ Department of Wastewater Management
- ✓✓ Department of Public Works
- ✓ Board of Water Supply
- ✓✓ Department of Planning
- Department of Transportation Services
- Department of Human Resources -- City Commission on Persons with Disabilities
- Department of Land Utilization
- Police Department

Other Agencies

- Friends of Hanauma Bay
- GTE Hawaiian Tel
- Hawaii Kai Neighborhood Board
- Sea Grant Extension Service
- Sea Life Park Hawai'i



DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, CORPS OF ENGINEERS
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF

October 10, 1996

Planning and Operations Division

Mr. Brian Suzuki
City and County of Honolulu
Department of Parks and Recreation
Advance Planning Branch
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Suzuki:

Thank you for the opportunity to review and comment on the Draft Revised Environmental Assessment (DREA) for the Hanauma Bay Nature Preserve Project, Oahu (TMK 3-9-12: por. 2, 12, 14, and 16). The following comments are provided pursuant to Corps of Engineers authorities to disseminate flood hazard information under the Flood Control Act of 1960 and to issue Department of the Army (DA) permits under the Clean Water Act; the Rivers and Harbors Act of 1899; and the Marine Protection, Research and Sanctuaries Act.

a. Based on the information provided, a DA permit will not be required for the project. Please contact our Regulatory Section at 438-9258 for further information and refer to file number 960000002.

b. The flood hazard information provided on page III-2 of the DREA is correct.

Sincerely,

George P. Young, P.E.
Acting Chief, Planning
and Operations Division

6033-01
November 25, 1996

WILSON
OKAMOTO
A ASSOCIATES, INC.



ENGINEERS
PLANNERS
1907 S. WERTHMAN STREET
HONOLULU, HAWAII 96822
PH: (808) 948-2277
FAX: (808) 948-2252
MAILING ADDRESS:
P. O. BOX 3836
HONOLULU, HAWAII 96811

Mr. George P. Young, P.E., Acting Chief
U. S. Department of the Army
Pacific Ocean Division, Corps of Engineers
Planning and Operations Division
Fort Shafter, Hawaii 96858-5440

Dear Mr. Young:

Subject: Revised Draft Environmental Assessment (EA)
Hanauma Bay Nature Preserve

Thank you for your letter dated October 10, 1996 in which you stated that a Department of the Army permit will not be required for the project and verified the flood hazard information provided in the Draft EA.

Your time and effort in reviewing and commenting the subject Revised Draft EA are appreciated.

Very truly yours,

Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner



United States Department of the Interior

FISH AND WILDLIFE SERVICE
PACIFIC ISLANDS Ecoregion
300 ALA MOANA BOULEVARD, ROOM 3108
BOX 50088

HONOLULU, HAWAII 96850
PHONE: (808) 541-3441 FAX: (808) 541-3470

In Reply Refer To: KF

Earl Matsukawa
Project Manager
Wilson Okamoto & Associates, Inc.
1907 S. Beretania Street
Honolulu, Hawaii 96826

OCT 31 1996

Re: Draft Revised Environmental Assessment Hanauma Bay Nature Preserve, Oahu, Hawaii

Dear Mr. Matsukawa:

The U.S. Fish and Wildlife Service (Service) received your September 27, 1996, request to review and provide comments on the Hanauma Bay Nature Preserve Draft Revised Environmental Assessment (DREA). The proposed action calls for constructing a vehicle turn-around in the lower preserve area, realignment of the proposed pedestrian walkway from the upper to lower preserve; and placement of a collection booth at the roadway leading to the parking lot. The project is located at Hanauma Bay, Island of Oahu. The project sponsor is the Department of Parks and Recreation, City and County of Honolulu. The Draft Revised Environmental Assessment was prepared by Wilson Okamoto and Associates, Incorporated. The Service offers the following comments for your consideration.

The proposed construction activities would involve expanding the current lower preserve vehicle turn-around to allow for multiple vehicles to use the road simultaneously. Comfort Station #1 would be moved east of the turn-around. The Education Center/Snorkel Rental facility would be located west of the turn-around. The pedestrian walkway would be realigned above the access road and proposed turn-around. A fee collection booth would be located near the roadway leading into the parking lot. The Draft Revised Environmental Assessment does not indicate when project-related construction activities are scheduled to begin. Also, the DREA does not address the use of project-related lighting or the construction of additional lighting at the Hanauma Bay Nature Preserve.

We have reviewed the maps prepared by The Nature Conservancy's Hawaii Natural Heritage Program and the Service's National Wetland Inventory Program. Based on this information, there are no federally listed endangered or threatened species at the proposed construction site. However, coral reefs exist in the intertidal zone in close proximity to project-related construction activities. The Service is concerned that siltation from upland runoff could impact the coral reefs. Therefore, the Service recommends that the following measures be incorporated into the project to minimize impacts to coral reefs and the marine habitat:

Draft Revised Environmental Assessment
Hanauma Bay Nature Preserve
Oahu, Hawaii

- (1) no project-related construction activity should take place in the marine environment;
- (2) all project-related materials should be placed or stored in ways to avoid or minimize disturbance to the marine environment;
- (3) all project-related materials should be free of pollutants;
- (4) no contamination of the marine environment (trash or debris disposal etc.) should result from project activities;
- (5) a contingency plan to control accidental spills of petroleum products should be developed. Absorbent pads and containment booms should be stored on-site to facilitate the clean-up of petroleum spills; and
- (6) turbidity and siltation from project-related activities should be minimized and contained to the immediate vicinity of construction through the use of effective silt containment devices and the curtailment of construction during adverse weather conditions.

The Service appreciates the opportunity to provide comments on the proposed project. If you have any questions regarding these comments, please contact Fish and Wildlife Biologist Kevin Foster at 808/541-3441 (fax: 808/541-3470).

Sincerely,

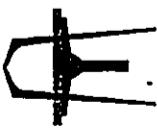

Brooks Harper
Field Supervisor
Ecological Services

cc:

Brian Suzuki, City and County of Honolulu
Gary Gill, State of Hawaii
Earl Matsukawa, Wilson Okamoto & Associates

6033-01
November 25, 1996

WILSON
OKAMOTO
A ASSOCIATES, INC.



ENGINEERS
PLANNERS
107 S. BERTHMAN STREET
HONOLULU, HAWAII 96850
PH: (808) 946-2277
FAX: (808) 946-2253
Mailing address:
P. O. Box 3430
Honolulu, Hawaii 96811

Mr. Brooks Harper, Field Supervisor
U.S. Department of the Interior
Fish and Wildlife Service, Pacific Islands Ecoregion
Ecological Services
300 Ala Moana Boulevard, Room 3108
Box 50088
Honolulu, Hawaii 96850

Dear Mr. Harper:

Subject: Revised Draft Environmental Assessment (EA)
Hanauma Bay Nature Preserve

Thank you for your letter dated October 31, 1996 (Reference KF) commenting on the project. The following responses are offered in the respective order of your comments:

1. Funding for the proposed pedestrian pathway is anticipated for inclusion in the County's FY 1998 capital improvement program budget and construction could be scheduled as early as Fall, 1997. Funding for the turnaround area may be secured within the next six years.
2. Regarding lighting requirements, with the exception of security lighting for the new concession building, the project will not include a new lighting system.
3. We appreciate your recommendations for mitigating potential construction impacts associated with runoff to the coral reefs and will include them as requirements on construction plans.

Your time and effort in reviewing and commenting the subject Revised Draft EA are appreciated.

Very truly yours,



Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner

NOV-12-96 TUE 10:26

FAX NO. 808 523 4767

P. 01

Benjamin J. Cayetano
Governor
Confidential

HERMAN M. AIZAWA, PH.D.
SUPERINTENDENT



RECEIVED

STATE OF HAWAII
DEPARTMENT OF EDUCATION
P. O. BOX 2360
HONOLULU, HAWAII 96804

NOV 11 1996

OFFICE OF THE SUPERINTENDENT

FACILITIES
PARKS & RECREATION
C & C OF HONOLULU
October 11, 1996

Mr. Brian Suzuki
Department of Parks and Recreation
Advance Planning Branch
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Suzuki:

SUBJECT: Hanauma Bay Nature Preserve
Draft Revised Environmental Assessment
TMK: 3-9-13: PORTION OF 2, 12, 14, and 16

The Department of Education has reviewed the subject assessment and has no comment on the proposed changes in preserve management and development.

Thank you for the opportunity to comment.

Sincerely,

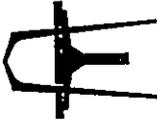
Herman M. Aizawa
Herman M. Aizawa, Ph.D.
Superintendent

HMA:hy

cc: A. Suga, HDO
J. Sosa, HDO
G. Gill, OEQC
E. Matsukawa, Wilson, Okamoto & Assoc., Inc.

6033-01
November 25, 1996

WILSON
OKAMOTO
& ASSOCIATES, INC.



ENGINEERS
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1201 S. BERGEMAN STREET
HONOLULU, HAWAII 96813
PH: (808) 948-2277
FAX: (808) 948-2233
An Equal Opportunity Employer
M.F.D. No. 4-1-83-0
Permit No. 96-00111

Mr. Herman M. Aizawa, Ph.D., Superintendent
State of Hawaii
Department of Education
P.O. Box 2360
Honolulu, Hawaii 96804

Dear Dr. Aizawa:

Subject: Revised Draft Environmental Assessment (EA)
Hanauma Bay Nature Preserve

Thank you for reviewing the subject document and for your letter of October 11, 1996 indicating that you have no comments to offer.

Very truly yours,

Earl Matsukawa

Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner

BENJAMIN J. CATELINO
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
75 SOUTH KING STREET - HONOLULU HAWAII 96813

MAZU HAYASHIDA
DIRECTOR
DEPUTY DIRECTORS
- ERIKA MATSUDA
- CLEMENS OKAMOTO

IN REPLY REFER TO:

HAR-EP
7189.97

October 16, 1996



Mr. Brian Suzuki
City and County of Honolulu
Department of Parks and Recreation
Advance Planning Branch
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Suzuki:

Subject: Hanauma Bay Nature Preserve, Draft Revised Environmental Assessment
Tax Map Key No. 3-9-12 Portions of 2, 14, and 16, East Honolulu, Oahu,
Hawaii.

Thank you for the opportunity to comment on the draft Environmental Assessment. Since there are no impacts to commercial harbor facilities, we have no comments to offer. Please remove our Division from the consulted agency list.

Very truly yours,

Thomas T. Fujikawa
Chief

c: Office of Environmental Quality Control
Wilson Okamoto & Associates, Inc.

6033-01
November 25, 1996

WILSON
OKAMOTO
& ASSOCIATES, INC.



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1075 KUREMA STREET
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PH: (808) 946-2277
FAX: (808) 946-2333
MAILING ADDRESS
1075 KUREMA STREET
HONOLULU, HAWAII 96813

Mr. Thomas Fujikawa, Chief
State of Hawaii
Department of Transportation - Harbors Division
79 South Nimitz Highway
Honolulu, Hawaii 96813-4898

Dear Mr. Fujikawa:

Subject: Revised Draft Environmental Assessment (EA)
Hanauma Bay Nature Preserve

Thank you for reviewing the subject document and for your letter of October 16, 1996 (Reference HAR-EP 7189.97) indicating that you have no comments to offer. As requested, we will seek no further consultation from your agency on this project.

Very truly yours,

Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner



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

OFFICE OF PLANNING
No. 1 Capitol District Building, 250 South Hotel Street, 4th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 3540, Honolulu, Hawaii 96811-3540

BENJAMIN J. CAVETANG
GOVERNOR
SELEN F. NATA
DIRECTOR
RICK EGGED
DIRECTOR, OFFICE OF PLANNING

Telephone: (808) 587-2848
Fax: (808) 587-2848

Ref. No. P-6333

October 17, 1996

Mr. Earl Matsukawa
Project Manager
Wilson Okamoto & Associates, Inc.
P.O. Box 3530
Honolulu, Hawaii 96811

Subject: Hanauma Bay Nature Preserve
Draft Revised Environmental Assessment

Dear Mr. Matsukawa:

We have reviewed the assessment and do not have any comments to offer on the project.

Thank you for the opportunity to comment. Should you have any questions, please call Christina Meller of our Coastal Zone Management Program at 587-2845.

Sincerely,


Rick Egged
Director
Office of Planning

6033-01
November 25, 1996

Mr. Rick Egged, Director
State of Hawaii
Department of Business, Economic Development & Tourism
Office of Planning
P.O. Box 3540
Honolulu, Hawaii 96811-3540

Dear Mr. Egged:

Subject: Revised Draft Environmental Assessment (EA)
Hanauma Bay Nature Preserve

Thank you for reviewing the subject document and for your letter of October 17, 1996 (Reference P-6333) indicating that you have no comments to offer.

Very truly yours,


Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner

**WILSON
OKAMOTO**
ASSOCIATES, INC.



**ENGINEERS
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1827 K. BERETANIA STREET
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Mailing address:
P.O. Box 3530
Honolulu, Hawaii 96811

BENJAMIN J. CAYTELANG
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

LAWRENCE MIKE
DIRECTOR OF HEALTH

In reply, please refer to

October 30, 1996

92-382A/epo

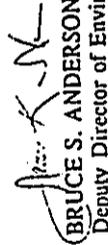
Mr. Brian Suzuki
City & County of Honolulu
Department of Parks and Recreation
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Suzuki:

Subject: Hanauma Bay Nature Preserve
Draft Revised Environmental Assessment
East Honolulu, Oahu, Hawaii
TMK: 3-9-12: portion of 2, 12, 14, and 16

Thank you for allowing us to review and comment on the subject project.
We do not have any comments to offer at this time.

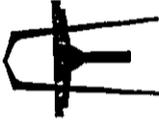
Sincerely,


BRUCE S. ANDERSON, Ph.D.
Deputy Director of Environmental Health

c: Office of Environmental Quality Control
Wilson Okamoto & Associates, Inc.

6033-01
November 25, 1996

WILSON
OKAMOTO
& ASSOCIATES, INC.



ENGINEERS
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1877 S. BERETANIA STREET
HONOLULU, HAWAII 96808
PH: (808) 946-2277
FAX: (808) 946-1152
HONOLULU, HAWAII 96813

Mr. Bruce S. Anderson, Ph.D.
Deputy Director of Environmental Health
State of Hawaii
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801

Dear Dr. Anderson:

Subject: Revised Draft Environmental Assessment (EA)
Hanauma Bay Nature Preserve

Thank you for reviewing the subject document and for your letter of October 30, 1996 (Reference 92-382A/epo) indicating that you have no comments to offer.

Very truly yours,



Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner

BENJAMIN A. CATY AND
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

October 31, 1996

Brian Suzuki
Department of Parks and Recreation
Advance Planning Branch
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Suzuki:

SUBJECT: Draft Revised Environmental Assessment, Hanauma Bay Nature Preserve
Maunaloa (Waimanalo), Honolulu (Ko'olaupoko), O'ahu
TMK: 3-9-12: por. 2, 12, 14, and 16

Thank you for the opportunity to review this revised environmental assessment (EA). We believe the revisions described in the EA will have "no effect" on historic sites. Our earlier determination (LOG NO: 8729, 103223) that the Hanauma Bay Nature Preserve improvement will have "no effect" remains in effect.

If you have any questions please call Tom Dye at 587-0014.

Aloha,


BON HIBBARD, Administrator
State Historic Preservation Division

TD:jk

cc: Gary Gill, Director, Office of Environmental Quality Control, 220 South King Street, 4th Floor, Honolulu, Hawaii 96813
/ Earl Matsukawa, Project Manager, Wilson Okamoto & Associates, Inc., 1907 South Beretania Street, Suite 400, Honolulu, Hawaii 96826
Dean Y. Uchida, Administrator, Land Division, DLNR

JACQUES S. INAHOMI, ESQ.
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY COMMISSIONER

AQUACULTURE DEVELOPMENT PROGRAM

AQUATIC RESOURCES

CONSERVATION AND

COMMERCIAL AFFAIRS

CONSERVATION AND

RECREATION DEVELOPMENT

CONSERVATION

PLANNING AND

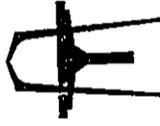
RECREATION

STATE PARKS

WATER AND LAND DEVELOPMENT

LOG NO: 18393
DOC NO: 9610TD14

WILSON
OKAMOTO
& ASSOCIATES, INC.



ENGINEERS
PLANNERS
1877 S. BERETANIA STREET
HONOLULU, HAWAII 96826
PH: (808) 948-2277
FAX: (808) 948-2253
Mailing address:
P. O. Box 3830
Honolulu, Hawaii 96811

6033-01
November 25, 1996

Mr. Don Hibbard, Ph.D., Administrator
State of Hawaii
Department of Land and Natural Resources
State Historic Preservation Division
33 South King Street, 6th Floor
Honolulu, Hawaii 96813

Dear Dr. Hibbard:

Subject: Revised Draft Environmental Assessment (EA)
Hanauma Bay Nature Preserve

Thank you for your letter dated October 31, 1996 (Reference Log No: 18393, Doc No: 9610TD14) indicating that your previous "no effect" determination still applies to the current master plan modifications.

Your time and effort in reviewing the subject Revised Draft EA are appreciated.

Very truly yours,



Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner



COMMISSION ON PERSONS WITH DISABILITIES

919 Ala Moana Boulevard, Room 101 • Honolulu, Hawaii 96814
Ph. (808) 586-8121(V/TDD) • Fax (808) 586-8129

November 4, 1996

City and County of Honolulu
Department of Parks and Recreation
Advance Planning Branch
650 South King Street
Honolulu, Hawaii 96813

Attention: Brian Suzuki

Subject: Haunama Bay Nature Preserve
Draft Revised Environmental Assessment
Oahu, Hawaii

Following are a few general comments to the draft revised environment assessment as it relates to accessibility:

1. Phase I -
 - a) Traffic management kiosks - these should be designed so one can approach, enter, and exit the kiosks, however, maneuvering within these structures for accessibility would not be required.
 - b) The shuttle turn around area would require at least one accessible loading/unloading area.
 - c) Beach information pavilion/snorkel gear rental concession counter must be accessible. Additionally, employee work spaces must be designed so one can approach, enter, and exit.
 - d) Reconstructed comfort station #1 - new comfort stations must be accessible.
2. Phase II -
 - a) Drop off loading/unloading areas, walkways and crosswalks are required to be accessible. Curb ramps will be required along walkways to provide a continuous accessible route to all accessible facilities on the site. Walkways would be required to provide a minimum 3'-0" wide unobstructed path.

b) Unless structurally impracticable due to extreme site constraints, all pedestrian walkways or paths must be accessible. Recommend where practicable, all walkways be less than 5% (1:20) in slope, however, where grades exceed 5%, ramps would be required. The maximum slope of an accessible ramp must not exceed 8.33% (1:12).

3) Additional notes -

- a) If use of a private concession/bus service to transport preserve visitors between Waikiki and Haunama Bay Nature Preserve is provided, accessible bus or transport vehicles would be required. Additionally, an accessible loading/unloading area would also be required.
- b) If additional parking is provided, accessible parking would be required relative to the number of new parking stalls. Accessible parking may be provided in a different location if equivalent or greater accessibility, in terms of distance from an accessible entrance, cost and convenience is ensured.

Sincerely,

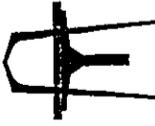
Ben Gorospe
Facility Access Coordinator

cc The State of Hawaii
Office of Environmental Quality Control

Wilson Okamoto & Associates, Inc.

6033-01
November 25, 1996

WILSON
OKAMOTO
A ASSOCIATES, INC.



ENGINEERS
PLANNERS
1907 S. RISTIANA STREET
HONOLULU, HAWAII 96826
PH: (808) 946-2277
FAX: (808) 946-2253
MEMBERSHIP - AIA, ASCE, etc.
P. O. Box 51820
Honolulu, Hawaii 96811

Mr. Ben Gorospe
Facility Access Coordinator
State of Hawaii
Commission on Persons With Disabilities
919 Ala Moana Boulevard, Room 101
Honolulu, Hawaii 96814

Dear Mr. Gorospe:

Subject: Revised Draft Environmental Assessment (EA)
Hanauma Bay Nature Preserve

Thank you for your letter dated November 4, 1996 commenting on the subject project. We appreciate the information you provided regarding minimum accessibility requirements and will forward it to the Department of Parks and Recreation (DPR) for consideration during the design development process. Furthermore, please be assured that the DPR will also consult with the Commission prior to final design of the project.

Your time and effort in reviewing and commenting on the Revised Draft EA are also appreciated.

Very truly yours,

Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF LAND MANAGEMENT

P.O. BOX 611
HONOLULU, HAWAII 96809
November 4, 1996

ADVISORY BOARD ON DEVELOPMENT
PROGRAMS
PLANNING AND DESIGN REGULATION
CONSERVATION AND
ENVIRONMENTAL AFFAIRS
CONSTRUCTION AND
CONTRACTS
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
STATE PARKS
WATER AND LAND DEVELOPMENT
WATER RESOURCE MANAGEMENT



Ref.: LD - TW

Mr. Brian Suzuki
City and County of Honolulu
Department of Parks and Recreation
Advance Planning Branch
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Suzuki:

SUBJECT: Review of Draft Revised Environmental Assessment,
Hanauma Bay Nature Preserve, Honolulu, Oahu, Tax
Map Key: 3-9-12, por. 2, 12, 14, & 16

Thank you for the opportunity to review the above-referenced subject matter.

There is one comment from the Department of Land and Natural Resources's Planning and Technical Services Branch to the effect that "The proposed changes to the Hanauma Bay Master Plan will require an amendment to the existing CDUA". Copy of letter is attached. There are no other comments from the other Divisions/Branches of the DLNR.

Should you have any questions, please call Tom Wong of the Land Division at 1-808-587-0431.

Very truly yours,

Dean Y. Uchida
DEAN Y. UCHIDA
Administrator

Attachment

c: OEOC w/attachment
Mr. Earl Matsukawa, Wilson Okamoto & Assoc., Inc.
w/attachment

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Land Division
Honolulu, Hawaii
October 14, 1996

Ref.: EACCHNP.COM
Suspense Date: 10/28/96

MEMORANDUM.

TO: Aquatic Resources, Forestry & Wildlife, State Parks, Historic Preservation, Water Commission, Natural Area Reserves System, Land Division Branches of: Planning and Technical Services, Engineering Branch, Oahu District Land Office

FROM: *Dean Y. Uchida*
Dean Y. Uchida, Administrator
Land Division

SUBJECT: Draft Revised Environmental Assessment
Hanauma Bay Nature Preserve
Honolulu, Oahu Tax Map Key: 3-9-12, por. 2, 12, 14, & 16

Please review the attached:

- DRAFT REVISED EA
- EIS PREPARATION NOTICE
- ENVIRONMENTAL ASSESSMENT
- PLAN REVIEW
- CORRESPONDENCE
- LUC REVIEW
- STATE CLEARINGHOUSE REVIEW
- PDCCO
- SHORELINE VARIANCE

and submit your comments within the time requested above. If we do not receive your comments by the suspense date, we will assume there are no comments. Should you have any questions, feel free to contact Tom Wong ext.: 7-0431.

We have no comments or objections to the proposed project, as submitted.

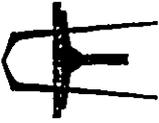
signed: *Dean Y. Uchida*

Date: 10-17-96

- The proposed changes to the Hanauma Bay Master Plan will require an amendment to the existing CDUA.

6033-01
November 25, 1996

WILSON
OKAMOTO
& ASSOCIATES, INC.



ENGINEERS
P L A N N E R S
1907 S. BUREAU STREET
HONOLULU, HAWAII 96825
PH: (808) 948-2277
FAX: (808) 948-2253
Mailing address:
P. O. B. 3330
Honolulu, Hawaii 96811

Mr. Dean Y. Uchida, Administrator
State of Hawaii
Department of Land and Natural Resources
Division of Land Management
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Uchida:

Subject: Revised Draft Environmental Assessment (EA)
Hanauma Bay Nature Preserve

Thank you for your letter dated November 4, 1996 (Reference LD - TW)
commenting on the subject project. We will be contacting your Planning and
Technical Services Branch regarding the amendment to the CDUA.

Very truly yours,

Earl Masukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner

BENJAMIN J. CAVETANO
Governor



STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

220 SOUTH KING STREET
FOURTH FLOOR
HONOLULU, HAWAII 96813
TELEPHONE: (808) 586-1818
FACSIMILE: (808) 586-1818

November 6, 1996

Ms. Dona Hanaike, Director
Department of Parks and Recreation
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Ms. Hanaike:

Subject: Comments on the Draft Environmental Assessment for the Hanauma Bay Nature Preserve

Thank you for the opportunity to review the subject document. We have the following comments.

1. Please specify the types of educational programs that will be available to visitors.
2. Please indicate the types of actions that will be taken to deter visitors from engaging in activities that could damage the marine ecosystem and environment. Such activities include improper feeding of fish, walking on reef, smoking and littering. What kinds of monitoring and enforcement will be carried out?
3. How will adverse impacts of storm run-off from the parking lots be mitigated? We are particularly concerned about accumulated spillage of oils, grease, and other automotive fluids such as gasoline and antifreeze getting into the bay.
4. Please provide detail reasons for supporting the determination based on an analysis of the significance criteria in section 11-200-12 of Hawaii EIS Statement Rules.

Should you have any questions call Jeyan Thirugnanam at 586-4185.

Sincerely,


Gary Gill
Director

C: Wilson Okamoto and Associates

6033-01
November 25, 1996

Mr. Gary Gill, Director
State of Hawaii
Office of Environmental Quality Control
State Office Building
235 South Beretania Street, Room 702
Honolulu, Hawaii 96813

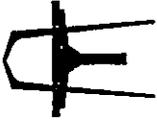
Dear Mr. Gill:

Subject: Revised Draft Environmental Assessment (EA)
Hanauma Bay Nature Preserve

Thank you for your letter dated November 6, 1996 commenting on the subject project. The following responses are offered in the respective order of your comments:

- 1 & 2. The types of educational programs that may be provided for preserve visitors have yet to be determined. As discussed in the Hanauma Bay Master Plan, educational programs will focus on the protection and preservation of the marine environment, as well as safe participation in recreational activities. Prohibited practices such as improper feeding of fish, walking on the reef, smoking and littering would also be appropriate topics. Your suggestion will be forwarded to the Department of Parks and Recreation for their consideration.
3. The proposed modifications to the master plan would not create new roads or parking areas where automotive fluids could accumulate. Similarly, the modifications will not increase the amount of such fluids produced by vehicles using the existing roads and parking areas. The parking areas will remain unchanged, the proposed shuttle turnaround area will replace, rather than supplement, the existing turnaround area, and the pedestrian pathway will not be used by automobiles.

WILSON
OKAMOTO
& ASSOCIATES, INC.



ENGINEERS
PLANNERS
1907 S. BERETANIA STREET
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PH: (808) 948-2277
FAX: (808) 948-2253
Mailing address:
P. O. Box 3830
Honolulu, Hawaii 96811

**WILSON
OKAMOTO**
A ASSOCIATES, INC.

6033-01

Letter to Mr. Gary Gill
November 25, 1996
Page 2

4. The Revised Final EA will include a discussion supporting the project's significance determination.

Your time and effort in reviewing and commenting on the subject Revised Draft EA are appreciated.

Very truly yours,



Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner

BERNARD J. CAYetano
GOVERNOR



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

NOV 7 1996

KAZU HAYASHIDA
DIRECTOR
DEPUTY DIRECTORS
JERRY M. MATSUOKA
GLENN M. OKAMOTO

IN REPLY REFER TO
HWY-PS
2.2507

Ms. Dona Hanaike
Page 2

NOV 7 1996

HWY-PS 2.2507

4. We request that the Department of Parks and Recreation use funds generated by Preserve admission and parking fees to mitigate traffic congestion caused by the Preserve. Federal highway funds potentially could be made available to reimburse 80% of City expenditures for turning lanes, drop-off area, and informational signs along Kalaniana'ole Highway. Please contact the Department of Transportation Services for further information.

Very truly yours,

Kazu Hayashida

KAZU HAYASHIDA
Director of Transportation

c: Office of Environmental Quality Control, Attn: Gary Gill, Director
Wilson Okamoto & Associates, Inc., Attn: Earl Matsukawa, Project Manager



Ms. Dona Hanaike, Director
Department of Parks and Recreation
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Attention: Mr. Brian Suzuki

Dear Ms. Hanaike:

Subject: Draft Revised Environmental Assessment for
Hanauma Bay Nature Preserve

Thank you for consulting us concerning the subject Environmental Assessment (EA). We have the following comments:

1. The EA should be revised to indicate that Hanauma Bay Nature Preserve is open to public use at 6 a.m. except for Wednesdays when it opens at noon.
2. On Wednesdays, huge traffic queues develop on Kalaniana'ole Highway in anticipation of the Preserve's opening. On other days, small traffic queues develop on Kalaniana'ole Highway after the Preserve's parking lots are filled and security guards begin turning away cars.
3. It is not acceptable for the Preserve to continue to generate mile-long traffic queues on Kalaniana'ole Highway on Wednesday mornings. The Department of Parks and Recreation should either close the Preserve for maintenance on Wednesday afternoon or all day Wednesday.

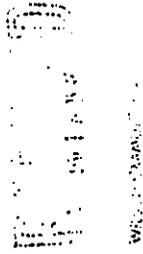


University of Hawai'i at Mānoa

Environmental Center
A Unit of Water Resources Research Center
2550 Campus Road • Crawford 317 • Honolulu, Hawaii 96822
Telephone: (808) 956-7361 • Facsimile: (808) 956-3980

Mr. Brian Suzuki
City and County of Honolulu
Department of Parks and Recreation
Planning Branch
650 South King Street
Honolulu, Hawaii 96813

November 7, 1996
EA.0150



WATER RESOURCES RESEARCH CENTER

Dear Mr. Suzuki:

Draft Environmental Assessment
Hanauma Bay Nature Preserve
Hanauma Bay, Oahu

The City and County Department of Parks and Recreation proposes to make slight changes in preserve management and development. Pursuant to Ordinance 96-19 passed by the City Council earlier this year, the City intends to charge out-of-state visitors a \$3 admission fee to the lower preserve, as well as a \$1 parking fee for vehicles staying longer than 15 minutes. Supposedly the proposed fees will serve to control preserve usage and provide revenue for operating and maintenance costs. Other modifications include reconfiguring the proposed shuttle and emergency vehicle turnaround, realigning the pedestrian walkway, and constructing a collection booth next to the roadway leading to the parking lot.

We reviewed this draft Environmental Assessment (EA) with the assistance of Peter Rappa, Sea Grant; and Paul Berkowitz of the Environmental Center.

Transportation Concession

In general, this EA covers most of the main issues adequately; however, the document fails to discuss the transportation concession in relation to preserve usage. The option "currently under consideration whereby visitors from Waikiki could be shuttled to Hanauma Bay" (p. III-6) should address the potential for increased park usage. How many more visitors will these shuttles bring and what might be the effects of intensified park use? Presently the main mechanism for

Mr. Brian Suzuki
November 12, 1996
Page 2

limiting park usage is the parking lot size: when the parking lot is full, the park is closed. Today commercial buses are not allowed to drop off visitors intent on going to the lower preserve to recreate. What will happen to park usage if commercial tour companies are permitted to bring visitors via bus? Also, will these commercial companies be guaranteed a place at Hanauma Bay and be allowed to drop off visitors even if the parking lot is full? If this sort of commercial venture is granted, then the following County policy stated in the Hanauma Bay Nature Park Master Plan seems to be undermined:

"Continue to limit the number of park users by controlling access in a manner which favors public use of the park over commercially promoted users." (p. IV-8)

Before continuing further with the proposed changes, these transportation and access issues ought to be addressed in detail.

Preserve Fees

The intention of the proposed fees needs to be clarified. The EA states that the fee is intended to assist in controlling preserve usage (p. I-2). In contrast to this claim, the county ordinance (Appendix A) makes no reference to reducing usage through pricing. Furthermore the preparers of the EA state that rescinding the daily fee of \$5.00 "did not have an appreciable impact on preserve usage." Our reviewers also noted that proponents of the fee did not intend for the fee to be used as a means of limiting visitors.

Secondary Impacts of the Reconfigured Turnaround Area

While the preparer claims that "the reconfigured turnaround area ... will not result in adverse impacts" (p. III-3), it appears that only primary impacts are considered. As stipulated in the Environmental Impact Statement content requirements (Section 11-200-17, Hawaii Administrative Rules), assessments should consider secondary as well as primary effects. Thus, while the turnaround per se may have no significant impacts, it might make it easier for more people to use the lower preserve, thereby increasing the potential for impacts to the most fragile area in the preserve. The final EA should address these secondary impacts.

Soil Runoff Measures

Page III-4 states that "[a]ppropriate measures will be taken to assure that soil runoff is minimized." Rather than generally alluding to these measures, the document should explicitly define them. It should also describe how they will be implemented and by whom.

Mr. Brian Suzuki
November 12, 1996
Page 3

Alternatives

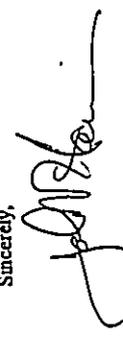
Section V which lists the alternatives to the proposed action needs to be expanded. Instead of dismissing the "no action" alternative in a single sentence, this option ought to be explored as a valid course of action. Furthermore several other options exist although none are presented. For instance, one alternative to the proposed action is to make the fee permanently voluntary. Another option calls for a return to the situation which existed prior to either mandatory or voluntary fees. As presented, this section is inadequate and needs to be expanded to include a valid discussion of all viable alternatives.

Miscellaneous Items

Two items require slight modification in the final EA. First, Section IV is unduly long and ought to be summarized to provide a more concise description of the relevant plans, policies, and permits. Second, the preserve opens at 6:00 a.m. each day (except Wednesday), not 9:00 a.m. (p.III-6).

Thank you for the opportunity to review this draft EA.

Sincerely,


John T. Harrison
Environmental Coordinator

cc: OEQC
✓ Wilson Okamoto & Associates
Roger Fujioka
Peter Rappa
Paul Berkowitz

6033-01
November 25, 1996

WILSON
OKAMOTO
ASSOCIATES, INC.



ENGINEERS
PLANNERS

1927 S. MEREDITH STREET
HONOLULU, HAWAII 96813
PH: (808) 946-2277
FAX: (808) 946-2253

MAILING ADDRESS:
P. O. BOX 238441
HONOLULU, HAWAII 96821

Mr. John T. Harrison, Environmental Coordinator
University of Hawaii at Manoa
Environmental Center
2550 Campus Road, Crawford 317
Honolulu, Hawaii 96822

Dear Mr. Harrison:

Subject: Revised Draft Environmental Assessment (EA)
Hanauma Bay Nature Preserve

Thank you for your letter dated November 7, 1996 (Reference EA:0150) commenting on the project. The following responses are offered in the respective order of your comments:

1. **Transportation Concession:** The transportation concession is not a proposed action in the subject EA. As discussed on page III-6, it is being considered as a possible method to reduce vehicular traffic into the Preserve by eliminating unauthorized dropping-off and picking-up of visitors wishing to enter the lower preserve. It would also eliminate the use of public transit by visitors to the Preserve. The concession would be limited to a specific number of passengers per day so as not to overburden use of the lower preserve. Nevertheless, please be assured that in the event this option is pursued, the potential impacts to transportation and access to the Preserve will be administratively reviewed.
2. **Preserve Fees:** We concur with your comment regarding the need to clarify the purpose of the proposed fees. References to the fees being intended to control preserve usage will be deleted from the Revised Final EA.
3. **Secondary Impacts of the Reconfigured Turnaround Area:** The shuttle system provides a service for visitors going between the upper and the lower preserve. It does not affect the number of visitors entering the Preserve and is not a limiting factor on the number of visitors who go to the lower preserve. The proposed modification of the shuttle turnaround is intended to facilitate passenger drop-off and loading operations by minimizing unnecessary maneuvering by the shuttles. As a result, passenger and pedestrian safety will be enhanced.
4. **Soil Runoff Measures:** We will include the following discussion in the Revised Final EA:

WILSON
OKAMOTO
ASSOCIATES, INC.

6033-01

Letter to Mr. John Harrison
November 25, 1996
Page 2

Turbidity and siltation from project-related activities will be contained to the immediate construction vicinity through the use of effective silt containment devices which may include silt fencing, berms, or geotextile fabric. Specific silt containment devices and the method of implementation will be determined by the construction contractor as appropriate to on site conditions at the time of construction. We note that the current Conservation District Use Permit for the Preserve prohibits grading activities during the rainy season. Furthermore, where possible, construction will not be permitted during periods of heavy rainfall.

5. Alternatives: The Revised Final EA will include a discussion of two no-action alternatives, including continuation of the current volunteer donation system and a reversion to the prior no-fee system. Both of these alternatives would continue to rely upon appropriations from the City for the operation, maintenance, and improvement of the Preserve.
6. Miscellaneous: It is our opinion that Section IV is a thorough and comprehensive discussion of land use plans, policies and regulatory controls. We appreciate your pointing out the error in the Preserve's opening time and will correct it in the Revised Final EA.

Your time and effort in reviewing and commenting on the Revised Draft EA are also appreciated.

Very truly yours,



Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner

6033-01
November 25, 1996

Mr. Kazu Hayashida, Director
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Mr. Hayashida:

Subject: Revised Draft Environmental Assessment (EA)
Hanauma Bay Nature Preserve

Thank you for your letter dated November 7, 1996 (Reference HWY-PS 2.2507) commenting on the subject project. The following responses are offered in the respective order of your comments:

1. We appreciate your pointing out the error in the Preserve's opening time and will correct it in the Revised Final EA.
- 2 & 3. The Traffic Assessment (Appendix B) prepared for the EA discussed the lengthy traffic queues that form on Kalaniana'ole Highway on Wednesdays and offered several recommendations to mitigate that impact on pages 7 through 9.
Your suggestion to close the Preserve for maintenance on Wednesday afternoon or all day Wednesday will be forwarded to the Department of Parks and Recreation for their consideration.
4. We appreciate your information on potential sources of funds to implement traffic improvements. The Department of Parks and Recreation will be contacting the Department of Transportation Services to discuss potential options.

Your time and effort in reviewing and commenting on the Revised Draft EA are appreciated.

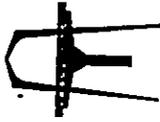
Very truly yours,



Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner

WILSON
OKAMOTO
S. ASSOCIATES, INC.



ENGINEERS
PLANNERS
190 S. WARDLAW STREET
HONOLULU, HAWAII 96826
PH: (808) 946-2277
FAX: (808) 946-2253

Mailing address:
P. O. Box 3330
Honolulu, Hawaii 96811

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
3375 KOAPAKA STREET, SUITE H425
HONOLULU, HAWAII 96819-1869



ANTHONY J. LOPEZ, JR.
FIRE CHIEF
ATTORNEY LEONARD
FIRE SERVICE UNIT

October 8, 1996

Mr. Brian Suzuki
City and County of Honolulu
Department of Parks and Recreation
Advance Planning Branch
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Suzuki:

Subject: Hanauma Bay Nature Preserve
Draft Revised Environmental Assessment
(Negative Declaration Anticipated)
Tax Map Keys: 3-9-12; portion of 2, 12, 14, and 16
East Honolulu, Oahu, Hawaii

We have reviewed the subject material provided and foresee no adverse impact in Fire Department facilities or services.

Should you have any questions, please call Assistant Chief Arthur Ugalde of our Administrative Services Bureau at 831-7774.

Sincerely,

ANTHONY J. LOPEZ, JR.
Fire Chief

AJL/MPN:ay

Copy to: Wilson Okamoto & Associates, Inc.
Office of Environmental Quality Control

6033-01
November 25, 1996

Mr. Anthony J. Lopez, Jr.
Fire Chief
City and County of Honolulu
Fire Department
3375 Koapaka Street, Suite H425
Honolulu, Hawaii 96819-1869

Dear Mr. Lopez:

Subject: Revised Draft Environmental Assessment (EA)
Hanauma Bay Nature Preserve

Thank you for your letter dated October 8, 1996 indicating that no adverse impacts to your facilities or services are anticipated as a result of the subject project.

Very truly yours,

Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner

WILSON
OKAMOTO
& ASSOCIATES, INC.



ENGINEERS
PLANNERS
1007 S. BERETANA STREET
HONOLULU, HAWAII 96825
PH: (808) 816-2277
FAX: (808) 846-2253
WILSON OKAMOTO & ASSOCIATES, INC.
P.O. BOX 1000
HONOLULU, HAWAII 96811

6033-01
November 25, 1996

Mr. Randall K. Fujiki
Director and Building Superintendent
City and County of Honolulu
Building Department
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Fujiki:

Subject: Revised Draft Environmental Assessment (EA)
Hanauma Bay Nature Preserve

Thank you for your letter dated October 14, 1996 (Reference PB 96-615)
indicating that you have no comments regarding the project.

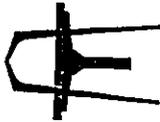
Very truly yours,



Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner

WILSON
OKAMOTO
ASSOCIATES, INC.



ENGINEERS
PLANNERS
1307 S. BERETANIA STREET
HONOLULU, HAWAII 96813
PH: (808) 846-2277
FAX: (808) 846-2253
MEMBERSHIP:
P. E. C. P. C. S. P. C.
Honolulu, Hawaii 96811

PB 96-615

October 14, 1996

MEMO TO: DONA L. HANAIKE, DIRECTOR
DEPARTMENT OF PARKS AND RECREATION

ATTN: BRIAN SUZUKI

FROM: RANDALL K. FUJIKI

DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: HANAUMA BAY NATURE PRESERVE
DRAFT REVISED ENVIRONMENTAL ASSESSMENT
TAX MAP KEYS: 3-9-12: PORTION OF 2, 12, 14 AND 16
EAST HONOLULU, OAHU, HAWAII

RECEIVED
OCT 16 1996

WILSON OKAMOTO & ASSOCIATES, INC.

This is in response to your request of September 26, 1996 to
review the subject material.

We have no comments to offer but appreciate the opportunity
to review the subject document.

Should there be any questions, please contact Douglas
Collinson at 527-6375.



RANDALL K. FUJIKI
Director and Building Superintendent

DC:jo
cc: Office of Environmental Quality Control
Wilson Okamoto & Associates, Inc.

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
 650 SOUTH KING STREET, 15TH FLOOR • HONOLULU, HAWAII 96813
 PHONE: (808) 523-4261 • FAX: (808) 523-5837



WILSON
 OKAMOTO
 & ASSOCIATES, INC.
 ENGINEERS
 PLANNERS
 1907 S. BERKELEA STREET
 HONOLULU, HAWAII 96826
 PH: (808) 946-2277
 FAX: (808) 946-2253

October 16, 1996

MEMORANDUM

TO: DONA L. HAWAIKE, DIRECTOR
 DEPARTMENT OF PARKS AND RECREATION

ATTENTION: BRIAN SUZUKI

FROM: KY KENNETH E. SPRAGUE
 DIRECTOR AND CHIEF ENGINEER

SUBJECT: DRAFT REVISED ENVIRONMENTAL ASSESSMENT (DREA)
 HANAUMA BAY NATURE PRESERVE
 THK: 3-9-12; FOR. 2, 12, 14 AND 16

We have reviewed the subject DREA and have the following comments:

1. Page III-4, Coastal Water Quality: Although the DREA addressed potential threats to water quality, there are no mentions of proposed mitigative measures.
2. Since the access road, turn around areas and parking lots will be heavily used, the DREA should address mitigative measures to contain oil and storm water runoff from these areas.

Should you have any questions, please contact Mr. Alex Ho, Environmental Engineer, at Local 4150.

cc: OEQC
 Wilson Okamoto & Associates, Inc.

6033-01
 November 25, 1996

Mr. Kenneth E. Sprague
 City and County of Honolulu
 Department of Public Works
 650 South King Street
 Honolulu, Hawaii 96813

Dear Mr. Sprague:

Subject: Revised Draft Environmental Assessment (EA)
 Hanauma Bay Nature Preserve

Thank you for your letter dated October 16, 1996 (Reference ENV 96-256) commenting on the subject project. We offer the following responses in the respective order of your comments:

1. We will include the following discussion in the Revised Final EA:
 Turbidity and siltation from project-related activities will be contained to the immediate construction vicinity through the use of effective silt containment devices which may include silt fencing, berming, or geotextile fabric. Specific silt containment devices and the method of implementation will be determined by the construction contractor as appropriate to on site conditions at the time of construction. We note that the current Conservation District Use Permit for the Preserve prohibits grading activities during the rainy season. Furthermore, where possible, construction will not be permitted during periods of heavy rainfall.
2. The proposed modifications to the master plan would not create new roads or parking areas where automotive fluids could accumulate, nor would it increase the amount of such fluids produced by increasing vehicular usage of existing roads and parking areas. The parking area will remain unchanged, the proposed shuttle turnaround area will replace, rather than supplement, the existing turnaround area, and the pedestrian pathway will not be used by automobiles.

WILSON
OKAMOTO
& ASSOCIATES, INC.

6033-01
Letter to Mr. Kenneth Sprague
November 25, 1996
Page 2

We appreciate your time and effort in reviewing and commenting on the subject Revised Draft EA.

Very truly yours,



Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU



COPY

October 22, 1996

RECEIVED
OCT 22 1996

WILSON OKAMOTO & ASSOCIATES, INC.

TO: DONA L. HANAIKE, DIRECTOR
DEPARTMENT OF PARKS AND RECREATION

ATTN: BRIAN SUZUKI

FROM: RAYMOND H. SATO, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

SUBJECT: YOUR LETTER OF SEPTEMBER 27, 1996 REGARDING THE DRAFT REVISED ENVIRONMENTAL ASSESSMENT FOR THE HANAUMA BAY NATURE PRESERVE, EAST HONOLULU, OAHU, TMAK: 3-9-12: 02, 12, 14, 16

Thank you for the opportunity to review and comment on the Draft Revised Environmental Assessment (EA) for the Hanauma Bay Nature Preserve.

We have no objections to the revisions regarding the entrance and parking fees, vehicle and pedestrian travel ways and parking lot collection booth. Our previous comments of November 20, 1992 regarding the Draft EA have been adequately addressed.

If you have any questions, please contact Barry Usagawa at 527-5235.

cc: Office of Environmental Quality Control
Wilson Okamoto & Associates, Inc.

963042

PE

6033-01
September 27, 1996

SEP 29 10 31 AM '96

Mr. Raymond H. Sato, Manager and Chief Engineer
Board of Water Supply
City and County of Honolulu
630 South Beretania Street
Honolulu, Hawaii 96813

Subject: Hanauma Bay Nature Preserve
Draft Revised Environmental Assessment
(Negative Declaration Anticipated)
Tax Map Keys: 3-9-12: portion of 2, 12, 14, and 16
East Honolulu, Oahu, Hawaii

Dear Mr. Sato:

As a correction to our letter of September 26, 1996 transmitting the subject EA, the postmark deadline for your comments should have been noted as November 7, 1996 instead of November 22, 1996. Pursuant to Chapter 343 Hawaii Revised Statutes, the comment period for Environmental Assessments ends 30 days after the document's availability for review is published in the Office of Environmental Quality Control's Environmental Notice.

We regret any inconvenience this may have caused.

Sincerely,

Earl Matsukawa
Earl Matsukawa, Project Manager

cc: Mr. Brian Suzuki, C&C, DPR
Mr. Gerald Park, Gerald Park Urban Planner

WV

6033-01
November 25, 1996

Mr. Raymond H. Sato, Manager and Chief Engineer
City and County of Honolulu
Board of Water Supply
630 South Beretania Street
Honolulu, Hawaii 96813

Dear Mr. Sato:

Subject: Revised Draft Environmental Assessment (EA)
Hanauma Bay Nature Preserve

Thank you for your letter dated October 22, 1996 indicating that you have no objections to the project.

Very truly yours,



Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner

WILSON
OKAMOTO
A ASSOCIATES, INC.



ENGINEERS
PLANNERS
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FAX: (808) 946-2253

Printing address:
P.O. Box 22810
Honolulu, Hawaii 96821

PLANNING DEPARTMENT
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 8TH FLOOR • HONOLULU, HAWAII 96813 2017
PHONE: (808) 523-4111 • FAX: (808) 523-4950



JEREMY HARRIS
MAYOR

CHERYL D. SOON
CHIEF PLANNING OFFICER
CARRILL TAKAHASHI
DEPUTY CHIEF PLANNING OFFICER
MH 9/96-1986

November 1, 1996

MEMORANDUM

TO: DONA L. HANAIAKE, DIRECTOR
DEPARTMENT OF PARKS AND RECREATION

FROM: CHERYL D. SOON, CHIEF PLANNING OFFICER
PLANNING DEPARTMENT

SUBJECT: HANAUMA BAY NATURE PRESERVE DRAFT REVISED
ENVIRONMENTAL ASSESSMENT, TAX MAP KEYS: 3-9-12: PORTION
OF 2, 12, 14 AND 16

In response to Wilson Okamoto & Associates, Inc.'s request of September 26, 1996, we have reviewed the subject Draft Revised Environmental Assessment and have the following comments to offer:

1. We concur that the Hanauma Bay Nature Preserve lies within the Preservation designation on the East Honolulu Development Plan Land Use Map.
2. The East Honolulu Development Plan Public Facilities Map shows a symbol for publicly funded Park/Modification improvements to Hanauma Bay.
3. We have no objections to the proposed modifications to the Hanauma Bay Nature Preserve Master Plan and the implementation of a new fee structure pursuant to Ordinance No. 96-19.

Should you have any questions, please contact Matthew Higashida of our staff at 527-6056.

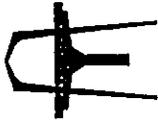
Cheryl D. Soon
CHERYL D. SOON
Chief Planning Officer

CDS:js

cc: Gary Gill, Director, Office of Environmental Quality Control
Earl Matsukawa, Project Manager, Wilson Okamoto & Associates, Inc.

6033-01
November 25, 1996

WILSON
OKAMOTO
& ASSOCIATES, INC.



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PH: (808) 946-2277
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MAILING ADDRESS:
P. O. B. # 3330
HONOLULU, HAWAII 96811

Ms. Cheryl D. Soon, Chief Planning Officer
City and County of Honolulu
Planning Department
650 South King Street, 8th Floor
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Revised Draft Environmental Assessment (EA)
Hanauma Bay Nature Preserve

Thank you for your letter dated November 1, 1996 (Reference MH 9/96-1986) indicating that you have no objections to the subject project. We appreciate the information you provided regarding the Development Plan Land Use and Public Facilities designations with respect to the project. Your time and effort in reviewing and commenting on the subject Revised Draft EA are also appreciated.

Very truly yours,

Earl Matsukawa

Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
Mr. Gerald Park, Gerald Park Urban Planner

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
 PACIFIC PARK PLAZA
 711 KAPIOLANI BOULEVARD, SUITE 1200
 HONOLULU, HAWAII 96813



471 1/2 - 1/2 - 1/2 - 1/2 - 1/2 - 1/2
 CHARLES SWANSON
 DIRECTOR

9/96-04580R
 9/96-04559R

November 1, 1996

MEMORANDUM

TO: DONA L. HANA'INE, DIRECTOR
 DEPARTMENT OF PARKS AND RECREATION

ATTN: BRIAN SUZUKI, ADVANCE PLANNING BRANCH

FROM: CHARLES O. SWANSON, DIRECTOR

SUBJECT: HANAUMA BAY NATURE PRESERVE

In response to the September 26, 1996 letter from Wilson Okamoto & Associates, Inc., the Draft Revised Environmental Assessment (Negative Declaration Anticipated) for the subject project was reviewed. We have no objections or comments regarding the transportation or traffic impacts of this project.

Should you have any questions regarding this matter, please contact Faith Miyamoto of the Transportation System Planning Division at Local 6976.

cc: Mr. Gary Gill, Office of Environmental Quality Control
 ✓ Mr. Earl Matsukawa,
 Wilson Okamoto & Associates, Inc.

F. Samayoa
 for CHARLES O. SWANSON

6033-01
 November 25, 1996

Mr. Charles O. Swanson, Director
 City and County of Honolulu
 Department of Transportation Services
 Pacific Park Plaza
 711 Kapiolani Boulevard, Suite 1200
 Honolulu, Hawaii 96813

Dear Mr. Swanson:

Subject: Revised Draft Environmental Assessment (EA)
 Hanauma Bay Nature Preserve

Thank you for your letter dated November 1, 1996 (Reference 9/96-04580R and 9/96-04559R) indicating that you have no objections to the subject project with regard to transportation or traffic impacts.

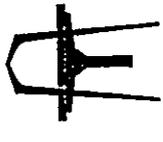
Very truly yours,

Earl Matsukawa

Earl Matsukawa, Project Manager

cc: Mr. Gary Gill, Office of Environmental Quality Control
 Mr. Brian Suzuki, City & County of Honolulu, Dept. of Parks & Recreation
 Mr. Gerald Park, Gerald Park Urban Planner

**WILSON
 OKAMOTO**
 & ASSOCIATES, INC.



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REFERENCES

REFERENCES

1. City and County of Honolulu Department of Parks and Recreation. *Hanauma Bay Daily Attendance Summary*. July 1995 to July 1996.
 2. City and County of Honolulu Department of Parks and Recreation. *Hanauma Bay Nature Park Pathway Planning Study*. Prepared by Gray, Hong, Bills & Associates, Inc. and Spencer Mason Architects. November, 1995.
 3. City and County of Honolulu Department of Parks and Recreation. *Hanauma Bay Nature Park Final Environmental Assessment*. Prepared by Wilson Okamoto and Associates, Inc. January 1993.
 4. City and County of Honolulu Department of Parks and Recreation. *Hanauma Bay Nature Park Master Plan*. Prepared by Wilson Okamoto and Associates, Inc. May 1992.
 5. Mak, James and James T. Moncur. *Political Economy of Protecting Unique Recreational Resources: Hanauma Bay, Hawaii*. University of Hawaii at Manoa, Department of Economics. April 1996.
 6. State of Hawaii Department of Business, Economic Development and Tourism. *State of Hawaii Data Book 1991: A Statistical Abstract*. November 1991.
-

Appendix A

*Ordinance 96-19
Relating to Fees for Hanauma Bay*

ORDINANCE NO. 96-19

BILL NO. 1 (1996)
CD1, FD1

A BILL FOR AN ORDINANCE RELATING TO FEES FOR HANAUMA BAY.

BE IT ORDAINED by the People of the City and County of Honolulu:

SECTION 1. Purpose. The purpose of this ordinance is to assess new fees for the Hanauma Bay Nature Preserve and to establish a special fund for the use of those fees.

The council finds that there are certain lands in the Koko Head, Hawaii Kai and Koko Crater areas, including Hanauma Bay, that were deeded in December, 1928, to the city for public park purposes. Those lands, and certain contiguous lands, will be the ones benefitting from the monies deposited into the fund.

The council further finds that vehicles, including taxis and tour vehicles, that enter the upper preserve to pick up or drop off passengers or to allow passengers to view the bay or take pictures only, should not be subject to the new fees established in this ordinance. This is because these activities do not involve use of the lower preserve and thus do not impact the bay's fragile ecosystem. Because the above-referenced activities usually take less than 15 minutes, and due to the difficulty the City would have monitoring the actual activities of vehicle occupants, this ordinance provides for the refund of vehicle parking fees for vehicles spending 15 minutes or less in the Hanauma Bay Nature Preserve.

SECTION 2. Chapter 10, Article 2, Revised Ordinances of Honolulu 1990, is amended by adding a new section to be appropriately designated by the revisor of ordinances and to read as follows:

"Sec. 10-2. Fees for Hanauma Bay Nature Preserve.

(a) The following fees shall be assessed for entrance to the Hanauma Bay Nature Preserve:

- (1) For nonresidents of Hawaii, 13 years of age and older, to enter the lower preserve (beyond the scenic lookout): \$3.00 per person.
- (2) For vehicles entering the preserve, a \$1.00 parking fee shall be assessed; provided that this parking fee shall

be refunded for all vehicles departing from the preserve within 15 minutes of their entry.

- (b) The director of parks and recreation is authorized to waive the fees provided by this section and to allow entry of any person to the Hanauma Bay Nature Preserve as part of an educational or promotional program or package made available or authorized by the city.
- (c) Customers of a commercial scuba diving and snorkeling permittee and the permittee shall pay the applicable fees established in subdivisions (a)(1) and (a)(2).
- (d) Hawaiians entering the Hanauma Bay Nature Preserve to exercise their traditional and customary rights for subsistence, cultural and religious purposes shall be exempt from paying the fees established in subdivisions (a)(1) and/or (a)(2) as the case may be; provided that nothing in this subsection shall be construed as allowing activities which may be otherwise prohibited by the Hawaii Revised Statutes or administrative rules of the department of land and natural resources. For purposes of this section, "Hawaiian" means the same as defined in HRS Section 11-1."

SECTION 3. Chapter 6, Revised Ordinances of Honolulu 1990, is amended by adding a new article to be appropriately designated by the revisor of ordinances and to read as follows:

"Article . Hanauma Bay Nature Preserve Fund

Sec. 6-___.1 Creation of fund.

There is created and established a special fund to be known as the "Hanauma Bay Nature Preserve fund."

Sec. 6-___.2 Purpose.

There shall be deposited into the Hanauma Bay Nature Preserve fund all receipts from the fees imposed under Section 10-2.__. All moneys deposited into this fund shall be used for the following purposes in the order of priority as indicated:

- (1) First, for the operation, maintenance and improvement of the Hanauma Bay Nature Preserve;
- (2) Second, for educational and orientation programs for visitors to the preserve;
- (3) Third, for a carrying capacity study of the preserve and for other studies relating to the environmental condition of the preserve; and

- (4) Fourth, if funds are available, for the operation, maintenance and improvement of the following park facilities: Koko Head district park, Maunalua Bay beach park, Koko Head rifle range, and the Koko Crater botanical garden.

Sec. 6-__ .3 Expenditures.

All expenditures from this fund shall be for purposes authorized in this article, based on appropriations in the operating or capital budget ordinances, or amendments thereto.

Sec. 6-__ .4 Administration.

The director of finance and the chief budget officer shall be responsible for the administration of this fund in accordance with prescribed laws and procedures applicable to expenditures of city funds."

SECTION 4. New ordinance material is underscored. When revising, compiling or printing this ordinance for inclusion in the Revised Ordinances of Honolulu, the revisor of ordinances need not include the underscoring.

SECTION 5. Effective Date. This ordinance shall take effect upon:

- (1) Its approval; or
- (2) Upon the adoption by council resolution of a special management area use permit which authorizes the imposition of admission and parking fees at Hanauma Bay and/or the construction of facilities and improvements necessary for the imposition of said fees,

whichever occurs later.

INTRODUCED BY:

Mufi Hannemann
John DeSoto
Donna Mercado Kim
John Henry Felix
Steve Holmes
Duke Bainum
Rene Mansho
Jon Yoshimura

 Councilmembers

DATE OF INTRODUCTION:

January 9, 1996

 Honolulu, Hawaii

APPROVED AS TO FORM AND LEGALITY:

Carol Ann Ishida
 Deputy Corporation Counsel

APPROVED this 25th day of April, 1996.

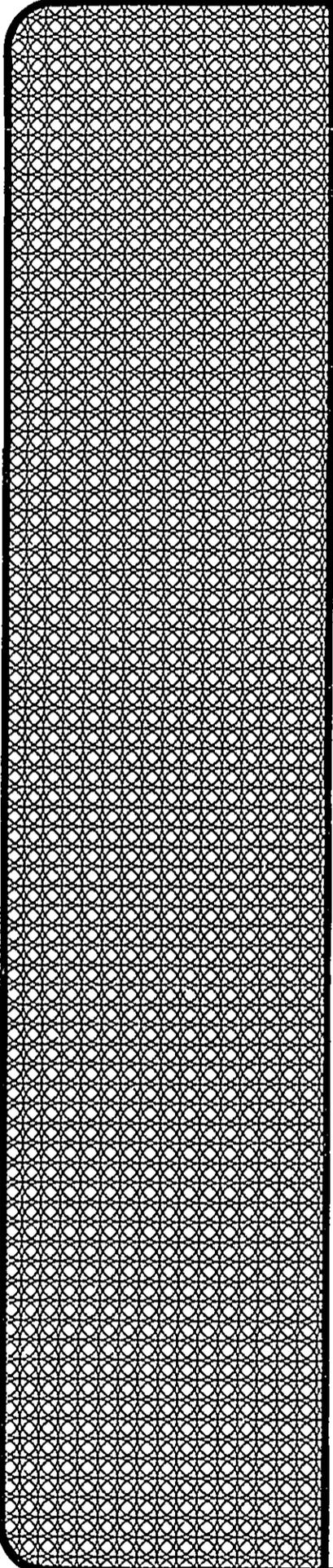
Jeremy Harris ACTING MAYOR
 JEREMY HARRIS, Mayor
 City and County of Honolulu

Appendix B

*Traffic Assessment for
Hanauma Bay Nature Preserve*

*Prepared by
Wilson Okamoto & Associates, Inc.*

November 1996



TRAFFIC ASSESSMENT
FOR
HANAUMA BAY NATURE PRESERVE

PREPARED BY
WILSON OKAMOTO & ASSOCIATES, INC.

NOVEMBER 1996

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Traffic Count Data

**TRAFFIC ASSESSMENT FOR
HANAUMA BAY NATURE PRESERVE**

I. INTRODUCTION

A. Purpose of Study

The purpose of this study is to qualitatively assess traffic operations and identify traffic operational deficiencies at Hanauma Bay Nature Preserve. Based on this comment, recommendations to address identified deficiencies are presented.

B. Scope of Study

This report presents the findings and conclusions of the traffic assessment, the scope of which includes:

1. Description of Hanauma Bay Nature Preserve and Facilities.
2. Evaluation of existing roadway and traffic operations in the vicinity of the project site.
3. Evaluation of vehicular ingress/egress operations.
4. Identification of traffic operational deficiencies.
5. Identification of recommended improvements, if appropriate, that would address these deficiencies.

II. PROJECT LOCATION

A. Location

The project site is located on Hanauma Bay Road off of Kalaniana'ole Highway in east Oahu. The project location is further identified as TMK: 3-9-12: por. 2, 12, 14, and 16.

B. Project Site Characteristics

Hanauma Bay is a natural geological formation created by the dormant Koko Head Crater and the Pacific Ocean. Other than the sandy beach area of Hanauma Bay, the coastline in the immediate vicinity is rocky and includes cavities created by tidal forces and erosion.

The Preserve may be divided into two distinct areas: the upper preserve area and the lower preserve area. The upper preserve includes the access road into the Preserve (Hanauma Bay Road), the existing paved parking lots, a tour bus/van staging area, open and shaded grass picnic areas, scenic lookouts, shuttle bus terminal, comfort station, visitor center and caretaker's quarters. The lower preserve includes the walkways leading to the beach area, the beach access road, the sandy beach area, grassed picnic areas, the nearshore protected waters, the bay rim trails, concession building, and three comfort stations located beachside.

Vehicular access to the Preserve is provided by a single two-lane, two-way access road. The access road intersects Kalaniana'ole Highway and traverses downward to the Preserve along the bay hillside. The access road leads to two paved parking areas as well as a tour bus and shuttle van staging area. The parking lots are striped for a total of 308 parking stalls, 8 of which are designated as accessible stalls.

Near one of the parking lots adjacent to the picnic area is designated and allows 10-minute loading and unloading of preserve users. From this parking lot a beach access road leads down to the lower preserve area. This road is used by pedestrians, a shuttle bus service ferrying preserve users between the upper and lower preserve areas, commercial vehicles serving the concession building, maintenance vehicles, and lifeguards and emergency vehicles. A tour bus/van staging area is located west of the

picnic area in the upper Preserve. The staging area includes a loop road that is used as a vehicle turn-around and a municipal bus stop. The commercial tour vehicles parked in the staging area are restricted to 15 minutes.

Hanauma Bay Nature Preserve is typically closed to vehicular traffic between the hours of 7:00 PM to 6:00 AM from the Memorial Day weekend through Labor Day weekend. From the day after the Labor Day weekend through the day prior to the Memorial Day weekend the hours of closure is between 6:00 PM and 7:00 AM. In addition, except for holidays, the Preserve is closed to visitors every Wednesday until 12:00 noon for maintenance purposes.

III. EXISTING TRAFFIC CONDITIONS

A. General

Hanauma Bay Nature Preserve is a popular attraction for tourists as well as the local people of Hawaii. Its unique setting and picturesque scenery makes the Preserve an ideal attraction for sightseeing opportunities. The state underwater preserve allows close interaction with marine life and the unique land formations in the vicinity of the Preserve create spectacular water features.

B. Area Roadway System

Fronting the preserve entrance, Kalaniana'ole Highway is a two-lane, two-way State roadway with 12-foot wide lanes in both directions. Kalaniana'ole Highway is the primary arterial traversing the coastline of east Oahu. West of Lunalilo Home Road, Kalaniana'ole Highway is generally a fully improved multi-lane highway with curb, gutter and

sidewalk, except for certain segments leading up to Lunalilo Home Road. East of Lunalilo Home Road, Kalaniana'ole Highway is a two-lane, two-way roadway generally with paved shoulders on both sides of the roadway. At the intersection with Hanauma Bay Road, Kalaniana'ole Highway has no acceleration/deceleration lanes or turning storage lanes. Hanauma Bay Road is stop-controlled with separate turning lanes at the intersection.

C. Traffic Volumes and Conditions

1. Field Investigation

A field investigation was conducted on August 21 and 22, 1996. It consisted of the following: a site inspection of the road and traffic conditions in the vicinity, and a mechanical vehicular count on Kalaniana'ole Highway, just west of the preserve entrance. The vehicular traffic count is appended to this report.

2. Existing Traffic Operations and Access Control

Based on the traffic count data, vehicular traffic on Kalaniana'ole Highway in the vicinity of the Preserve generally increases throughout the morning to about 9:00 AM and gradually decreases throughout the rest of the day. More than 12,000 vehicles a day use Kalaniana'ole Highway near the preserve entrance. Because of the lack of turning lanes, a single turning vehicle will cause traffic to back up behind it until the vehicle completes the turning movement. This situation occurs on both the eastbound and westbound turning movements at the intersection of Kalaniana'ole Highway and Hanauma Bay Road (preserve entrance). On a specific Wednesday during the field investigation, traffic on the

eastbound approach of the intersection were observed to queue to the intersection with Lunalilo Home Road at about 12:00 noon. The queue length reached about a mile long before starting to shorten. Vehicles were observed U-turning on Kalaniana'ole Highway to head westbound to get out of the traffic congestion. On the westbound approach, left-turn movements off of Kalaniana'ole Highway into the Preserve cause some delay in the through traffic movement, but not as significant as experienced by eastbound motorists. Since Kalaniana'ole Highway is a two-lane roadway in the vicinity of the park, the through traffic movements are impeded by the traffic congestion.

On the westbound approach to the preserve entrance, it took approximately 18 minutes to enter the Preserve on this particular Wednesday. According to personnel stationed at the entrance, the traffic operation that was observed on that particular Wednesday may be considered a typical condition near the Preserve's opening times. Once through the entrance gate near Kalaniana'ole Highway, and park entrance road, traffic appears to flow smoothly down to the parking lot. Personnel direct each motorist to specific areas of the parking lot to reduce driver confusion and to efficiently guide them to the parking stall. This arrangement appears to work very well since no problems were observed during the parking operations.

Once the parking lot is full, parking personnel inform other personnel stationed on Kalaniana'ole Highway at the park entrance who cone the entrance, denying further entry by motorists. Signs are placed at the entrance indicating that the parking lot is full and entrance is prohibited.

The traffic queue on Kalaniana'ole Highway cleared at about 30 minutes after Preserve opened. With the exception of vehicles slowing down at the entrance, through traffic moves fairly well on Kalaniana'ole Highway. In addition, traffic on Kalaniana'ole is often impeded by City buses at the bus stop near the entrance as well as drop-offs occurring as a result of the prohibited entry.

After parking lot closure, many prospective preserve users were observed parking on the side streets of Kalaniana'ole Highway on the west side of the Preserve and along the highway near the Koko Head Rifle Range on the east side. These visitors entered the Preserve by walking along the highway.

IV. CONCLUSION AND RECOMMENDATIONS

A. Conclusion

The significant traffic operational deficiencies appear to occur around Preserve's opening times. The affected time periods are from 12:00 PM to 1:00 PM on Wednesday and from 9:30 AM to about 10:30 AM on other days. Much of the traffic congestion occurs on the eastbound and westbound approaches of Kalaniana'ole Highway at the entrance. Turning movements into and out of the entrance road restrict the capacity of the intersection, since only one lane is available in both directions of Kalaniana'ole Highway.

Internal traffic circulation from the preserve access road to and within the parking lot currently operates adequately. Personnel directing the internal traffic circulation ensure smooth and efficient parking maneuvers.

A traffic operational deficiency also exists when motorists are denied entry into the park. Motorists entering the Preserve typically reduce their vehicle approach speed at the preserve entrance intersection. Drop-offs at the intersection also occur and impede through traffic movements during weaving maneuvers occurring on and off Kalaniana'ole Highway.

B. Recommendations

The following measures are recommended to mitigate traffic impacts associated with the Preserve. The first three measures pertain to intersection traffic control to improve vehicular ingress and egress movements, while the fourth measure considers an alternative transportation mode to the Preserve.

1. Provide Advance Warning

Advance warning that the parking lot is full and that vehicular entry is prohibited should be provided prior to vehicle arrival at the intersection. Signs could be physically placed but may be limited to points near the intersection. Permanent advance electronic warning signs may be more practical in this situation since a favorable sign location may be well in advance of the intersection approach.

2. Segregate Nonhomogeneous Flows

Segregation of nonhomogeneous traffic movements may be achieved by providing separate turning lanes leading to the park. With separate turning lanes, the integrity of through traffic movements may be maintained and, hence, reduce vehicular traffic queuing on the roadway approaches.

3. Provide Drop-Off Area Near Preserve Entrance.

Multiple merging and diverging requires complex driver decisions and creates additional conflicts. A designated drop-off area on Kalaniana'ole Highway at the entrance to the Preserve could be provided to reduce merging and diverging maneuvers when motorists are denied entry. Currently, motorists turn-off the roadway to drop-off visitors at a convenient location near the entrance. Safety and traffic operations are compromised when these merging and diverging maneuvers occur.

4. Private Transportation Concession

The majority of visitors to the Preserve appears to originate from areas within Waikiki and arrive by various transportation modes such as taxis, tour buses, limousine transfers, and automobiles. The use of various travel modes results, in part, in the high intersection demand at the entrance road.

To reduce the intersection traffic demand and, hence, improve traffic operations, a private concession to provide bus service is under consideration to transport preserve visitors between Waikiki and Hanauma Bay Nature Preserve. This should reduce the intersection traffic demand at the entrance road by limiting the use of taxis, limousines, and other low occupancy vehicles which could be barred from entering the Preserve during high demand hours. Since the intent of the transportation service is to transport visitors to and from the park, the concessionaire's buses could be allowed to enter the Preserve during entry closure times. The total number of passengers transported by the concession per day would be limited to prevent overuse of the lower preserve.

Other traffic operational recommendations that could be considered are as follows.

1. Consider removing the City bus stop in the Preserve, thereby reducing the number of large buses on the access road. The existing bus stop on Kalaniana'ole Highway at the preserve entrance road should remain. Excluding the City buses improve traffic operations by eliminating the maneuvers required by these large vehicles. Pedestrian safety upon entering the Preserve should also improve.
2. Provide incentives for off-site parking and disincentives for on-site parking.
3. Increased parking capacity may be an option to reduce traffic operational deficiencies when vehicular entry to the Preserve is restricted. However, preserve resources may be impacted by the increase in potential preserve users.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

TRAFFIC COUNT DATA

Location: Hanauma Bay
 Weather :
 Counter : 0234

Site: 2
 Date: 08/21/96
 File: [none]

Interval Begin	EB		WB		COMBINED		Day : Wednesday					
	AM	PH	AM	PH	AM	PH						
12:00	*	*	158	556	*	*	105 402	*	*	263	958	
12:15	*		152		*		115		*		267	
12:30	*		128		*		104		*		232	
12:45	*		118		*		78		*		196	
1:00	*	*	130	507	*	*	93 390		*	*	223	897
1:15	*		134		*		88		*		222	
1:30	*		119		*		95		*		214	
1:45	*		124		*		114		*		238	
2:00	*	*	134	490	*	*	120 471		*	*	254	961
2:15	*		120		*		109		*		229	
2:30	*		126		*		130		*		256	
2:45	*		110		*		112		*		222	
3:00	*	*	123	481	*	*	113 478		*	*	236	959
3:15	*		140		*		133		*		273	
3:30	*		110		*		128		*		238	
3:45	*		108		*		104		*		212	
4:00	*	*	103	416	*	*	123 498		*	*	228	914
4:15	*		115		*		133		*		248	
4:30	*		82		*		114		*		196	
4:45	*		116		*		128		*		244	
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6:30	*		48		*		65		*		113	
6:45	*		40		*		64		*		104	
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7:15	*		26		*		40		*		66	
7:30	*		36		*		23		*		59	
7:45	*		26		*		30		*		56	
8:00	*	*	35	119	*	*	21 76		*	*	56	195
8:15	*		25		*		17		*		42	
8:30	*		27		*		19		*		46	
8:45	*		32		*		19		*		51	
9:00	*	*	32	113	*	*	23 84		*	*	55	197
9:15	58		30		13		23		71		53	
9:30	124		31		59		19		183		50	
9:45	121		20		61		19		182		39	
10:00	124	498	32	86	64	278	15 44		188	776	47	130
10:15	118		19		76		13		194		32	
10:30	128		23		67		9		195		32	
10:45	128		12		71		7		199		19	
11:00	147	570	26	76	83	292	13 31		230	862	39	107
11:15	124		22		94		6		218		28	
11:30	144		13		22		5		166		18	
11:45	155		15		93		7		248		22	

Totals 1,371 3,497 703 3,359 2,074 6,856
 Split % 66.1 51.0 33.9 49.0

Day Totals 4,868 4,062 8,930
 Day Splits 54.5 45.5

Peak Hour 11:00 12:00 10:30 4:15 11:00 2:30
 Volume 570 556 315 505 862 987
 Factor 0.92 0.88 0.84 0.95 0.87 0.90

Location: Hanauma Bay
 Weather :
 Counter : 0234

Site: 2
 Date: 08/22/96
 File: [none]

Interval Begin	EB		WB		COMBINED		Day : Thursday					
	AM	PM	AM	PM	AM	PM						
12:00	12	37	152	525	7	31	98	387	19	68	250	912
12:15	9		113		7		99		16		212	
12:30	7		142		12		92		19		234	
12:45	9		118		5		98		14		216	
1:00	7	24	136	548	4	15	108	475	11	39	244	1,023
1:15	4		152		2		120		6		272	
1:30	10		136		7		143		17		279	
1:45	3		124		2		104		5		228	
2:00	10	22	135	503	4	17	107	480	14	39	242	983
2:15	4		120		12		120		16		240	
2:30	3		130		0		138		3		268	
2:45	5		118		1		115		6		233	
3:00	4	15	126	480	3	12	118	466	7	27	244	946
3:15	4		116		3		115		7		231	
3:30	6		122		1		122		7		244	
3:45	1		116		5		111		6		227	
4:00	5	18	112	435	3	22	122	466	8	40	234	901
4:15	2		117		2		140		4		257	
4:30	4		104		7		100		11		204	
4:45	7		102		10		104		17		206	
5:00	14	103	96	323	14	109	118	461	28	212	214	784
5:15	18		76		25		119		43		195	
5:30	37		83		33		127		70		210	
5:45	34		68		37		97		71		165	
6:00	42	146	84	255	64	327	85	327	106	473	169	582
6:15	35		65		87		83		122		148	
6:30	33		47		82		103		115		150	
6:45	36		59		94		56		130		115	
7:00	68	322	42	142	94	304	52	162	162	626	94	304
7:15	72		40		78		52		150		92	
7:30	82		32		68		36		150		68	
7:45	100		28		64		22		164		50	
8:00	110	519	19	100	56	266	27	93	166	785	46	193
8:15	116		34		72		22		188		56	
8:30	147		25		60		21		207		46	
8:45	146		22		78		23		224		45	
9:00	192	699	28	117	66	299	22	85	258	998	50	202
9:15	171		40		67		15		238		55	
9:30	172		35		88		24		260		59	
9:45	164		14		78		24		242		38	
10:00	163	590	18	84	83	399	21	50	246	989	39	134
10:15	154		23		103		7		257		30	
10:30	146		24		110		13		256		37	
10:45	127		19		103		9		230		28	
11:00	155	605	19	41	105	438	8	36	260	1,043	27	77
11:15	150		8		90		13		240		21	
11:30	160		5		115		7		275		12	
11:45	140		9		128		8		268		17	
Totals	3,100		3,553		2,239		3,488		5,339		7,041	
Split %	58.1		50.5		41.9		49.5					
Day Totals		6,653				5,727				12,380		
Day Splits		53.7				46.3						
Peak Hour	9:00		12:30		11:00		3:30		11:00		1:00	
Volume	699		548		438		495		1,043		1,023	
Factor	0.91		0.90		0.86		0.88		0.95		0.92	

Location: Hanauma Bay
 Weather :
 Counter : 0234

Site: 2
 Date: 08/23/96
 File: [none]

Interval Begin	EB		WB		COMBINED		Day : Friday					
	AM	PM	AM	PM	AM	PM						
12:00	16	42	*	*	4	26	*	*	20	68	*	*
12:15	9		*		8		*		17		*	
12:30	7		*		11		*		18		*	
12:45	10		*		3		*		13		*	
1:00	9	23	*	*	6	22	*	*	15	45	*	*
1:15	5		*		5		*		10		*	
1:30	5		*		3		*		8		*	
1:45	4		*		8		*		12		*	
2:00	2	11	*	*	4	13	*	*	6	24	*	*
2:15	3		*		4		*		7		*	
2:30	3		*		3		*		6		*	
2:45	3		*		2		*		5		*	
3:00	1	12	*	*	5	13	*	*	6	25	*	*
3:15	1		*		4		*		5		*	
3:30	4		*		1		*		5		*	
3:45	6		*		3		*		9		*	
4:00	4	24	*	*	5	28	*	*	9	52	*	*
4:15	4		*		2		*		6		*	
4:30	5		*		7		*		12		*	
4:45	11		*		14		*		25		*	
5:00	9	80	*	*	13	105	*	*	22	185	*	*
5:15	19		*		17		*		36		*	
5:30	23		*		33		*		56		*	
5:45	29		*		42		*		71		*	
6:00	32	164	*	*	62	328	*	*	94	492	*	*
6:15	44		*		70		*		114		*	
6:30	40		*		98		*		138		*	
6:45	48		*		98		*		146		*	
7:00	54	323	*	*	68	330	*	*	122	653	*	*
7:15	81		*		87		*		168		*	
7:30	92		*		93		*		185		*	
7:45	96		*		82		*		178		*	
8:00	138	552	*	*	72	356	*	*	210	908	*	*
8:15	148		*		96		*		244		*	
8:30	132		*		110		*		242		*	
8:45	134		*		78		*		212		*	
9:00	146	612	*	*	98	410	*	*	244	1,022	*	*
9:15	160		*		115		*		275		*	
9:30	140		*		103		*		243		*	
9:45	166		*		94		*		260		*	
10:00	0	*	*	*	0	*	*	*	0	*	*	*
10:15	*		*		*		*		*		*	
10:30	*		*		*		*		*		*	
10:45	*		*		*		*		*		*	
11:00	*	*	*	*	*	*	*	*	*	*	*	*
11:15	*		*		*		*		*		*	
11:30	*		*		*		*		*		*	
11:45	*		*		*		*		*		*	
Totals	1,843		*	*	1,631		*	*	3,474		*	*
Split %	53.1		*	*	46.9		*	*				
Day Totals		1,843				1,631				3,474		
Day Splits		53.1				46.9						
Peak Hour	9:00		*	*	9:00		*	*	9:00		*	*
Volume	612		*	*	410		*	*	1,022		*	*
Factor	0.92		*	*	0.89		*	*	0.93		*	*