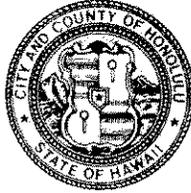


DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567
Website: www.honolulu.gov

MUFI HANNEMANN
MAYOR



EUGENE C. LEE, P.E.
DIRECTOR

CRAIG I. NISHIMURA, P.E.
DEPUTY DIRECTOR

170131

August 28, 2006

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
State Office Tower
235 South Beretania Street, Room 702
Honolulu, Hawaii 96813

RECEIVED
06 SEP 11 AM 9:27
OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

Dear Ms. Salmonson:

Subject: Finding of No Significant Impact for Waiahole Beach Park Master Plan
Tax Map Keys: 4-8-002: 001, 002, 004-007, 009-012;
4-8-001: Por. 010
Waiahole, District of Koolaupoko, Oahu

The Department of Design and Construction has reviewed the comments received during the 30-day public comment period that began on December 23, 2005 and ended on January 23, 2006. The agency has determined that this project will not have significant environmental effects and has issued a Finding of No Significant Impact. Please publish this notice in the next edition of the *Environmental Notice*.

A completed OEQC Publication Form and four copies of the final environmental assessment are enclosed.

Should there be any questions, please call Terry Hildebrand, Facilities Division, at 523-4696.

Very truly yours,

A handwritten signature in black ink, appearing to be "E. Lee", written over a horizontal line.

FOR Eugene C. Lee, P.E.
Director

ECLei

Enclosures

FINAL ENVIRONMENTAL ASSESSMENT

WAIĀHOLE BEACH PARK MASTER PLAN

Waiāhole, Koʻolaupoko District, Oʻahu, Hawaiʻi



Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

August 2006

FINAL ENVIRONMENTAL ASSESSMENT

WAIĀHOLE BEACH PARK MASTER PLAN

Waiāhole, Ko'olaupoko District, O'ahu, Hawai'i

Prepared in Partial Fulfillment of the Requirements of Chapter 343,
Hawaii Revised Statutes and Hawaii Administrative Rules, Title 11, Chapter 200
Department of Health, State of Hawaii and Chapter 25, Shoreline Protection
Revised Ordinances, City and County of Honolulu

Prepared for

Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Prepared by

Gerald Park Urban Planner
1221 Kapiolani Boulevard
Suite 211
Honolulu, Hawaii 96814

August 2006

PROJECT PROFILE

Project: Waiāhole Beach Park Master Plan

Proposing Agency: Department of Design and Construction
City and County of Honolulu

Approving Agency: Department of Design and Construction
for Mayor, City and County of Honolulu

Location: Waiāhole, Ko'olaupoko District, O'ahu

Tax Map Key: 4-8-002: 01,02,04,05,06,07,09,10, 11, 12
Land Area: 19.1755 acres
Landowner: City and County of Honolulu

Tax Map Key: 4-8-001: por. 010 (Wetland Mitigation)
Land Area: c. 14.0 acres
Landowner: City and County of Honolulu

State Land Use Designation: Agricultural
General Plan: Rural
Sustainable Communities Plan: Ko'olaupoko
Land Use Map: Agriculture
Zoning: AG-2 General Agriculture,
P-2 General Preservation

Special Management Area: Inside Special Management Area
Existing Use: City Beach Park, Open Space

Need for Environmental Assessment: Propose the use of County land and funds
(§11-200-5(c)), Hawaii Administrative Rules

Anticipated Determination: Finding of No Significant Impact

Contact Person: Terry Hildebrand
Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Phone: 523-4696

Note: Substantive revisions to the text of the Draft Environmental Assessment are shown in ***bold italic*** type. Deleted text is shaded and [bracketed].

TABLE OF CONTENTS

	PROJECT PROFILE	i
SECTION 1	DESCRIPTION OF THE PROPOSED PROJECT	1
	A. Conceptual Development Scheme	1
	B. Technical Characteristics	1
	C. Economic Characteristics	4
	D. Social Characteristics	5
	E. Community Presentation	5
SECTION 2	DESCRIPTION OF THE AFFECTED ENVIRONMENT	9
	A. Existing Use	9
	B. Climate	9
	C. Topography	11
	D. Soils and Land Type	11
	E. Flood Hazards	11
	F. Water Resource	14
	1. Streams	14
	2. Wetlands	14
	3. Groundwater	17
	G. Marine Resources	17
	1. Physical Description	17
	2. Marine Biota	18
	H. Flora	19
	I. Fauna	19
	1. Terrestrial Fauna	19
	2. Stream Fauna	19
	J. Archaeological Resources	19
	K. Cultural Resources	20
	L. Hazardous Materials	20
	M. Land Use Controls	21
	1. State Land Use District	21
	2. O'ahu General Plan	21
	3. Ko'olaupoko <i>Sustainable</i> Communities Plan	23
	4. Land Use Ordinance	26
	5. Special Management Area	26
	6. Coastal View Study	26
	N. Wetland Area	26
	O. Public Facilities and Services	29
	1. Streets and Traffic	29
	2. Water	30
	3. Wastewater	30
	4. Power and Communication	31
	5. Parks	31
	6. Protective Services	31

SECTION 3	SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS AND MEASURES TO MITIGATE ADVERSE EFFECTS	32
	A. Assessment Process	32
	B. Short-term Impacts	32
	C. Long-term Impacts	35
SECTION 4	ALTERNATIVES TO THE PROPOSED ACTION	43
	A. No Action	43
	B. Alternative Site Plan	43
SECTION 5	AGENCIES AND ORGANIZATIONS CONSULTED IN THE ASSESSMENT PROCESS	44
SECTION 6	PERMITS AND APPROVALS	45
SECTION 7	DETERMINATION OF SIGNIFICANCE	46
REFERENCES		49
APPENDIX A	<i>COMMENT LETTERS AND RESPONSES ON THE DRAFT ENVIRONMENTAL ASSESSMENT</i>	
APPENDIX B	TECHINICAL REPORTS	
	A. Wetland Resources Inventory for City and County of Honolulu Coastal Parcels Waiahole-Waikane Park, O’ahu. AECOS, Inc. August 2000. AECOS No. 824B.	
	B. Wetland Resources Inventory for City and County of Honolulu Coastal Parcels Waiahole-Waikane Park, O’ahu. AECOS, Inc. September 2001. AECOS No. 824C.	
	C. Concept Plan Waiahole Stream Wetlands Creation and Enhancement.	
	D. A Hawaiian Traditional and Cultural Practices Assessment for the Proposed Waiāhole Beach Park, Ahupua’a of Waiāhole and Waikāne, Ko’olaupoko, O’ahu. (TMK: 4-8-01). Volume I. Cultural Surveys Hawaii, Revised May 2002.	
	E. An Archaeological Inventory Survey of an Approximately 21-acre Parcel at Coastal Waiāhole, Ahupua’a Ko’olaupoko District, Oahu. (TMK: 4-8-02: 1,2, 4-12). Cultural Surveys Hawaii, November 2002.	
	F. Archaeological Inventory Survey of an Approximately 9-Acre Parcel in Coastal Waiāhole Ahupua’a, Ko’olaupoko District, Island of O’ahu. Cultural Surveys Hawaii, May 2005.	
	G. Final Report Phase I Environmental Site Assessment and Limited Soil Sampling Waiahole Beach Park. The Environmental Company, Inc. January 2003.	
	H. Waiahole Beach Park Traffic Assessment. Julian Ng Incorporated. September 2002.	

FIGURES

<u>Figure</u>	<u>Title</u>	<u>Page</u>
1	Location Map	6
2	Tax Map	7
3	Waiāhole Beach Park Master Plan	8
4	ALISH	12
5	Flood Insurance Rate Map	13
6	State Land Use Districts	22
7	Sustainable Communities Plan Ko'olaupoko-Land Use Map	24
8	Zoning and Special Management Area	27
9	Highway Traffic with Project	40

TABLES

<u>Table</u>	<u>Title</u>	<u>Page</u>
2-1	Average Daily Traffic Polimalima Road (Kaaawa) to Waiahole Valley Road	30
2-2	State Traffic Count Data Kamehameha Highway North of Waiahole Valley Road	30
3-1	Project Traffic Generation	39
3-2	Future with Project Traffic Intersection Conditions	39

IMAGES

<u>Image</u>	<u>Title</u>	<u>Page</u>
1	Open space area at southern end of Waiāhole Beach Park	10
2	South view of open space area from middle of the park	10
3	View of park looking north	10
4	South facing view near one of the earthen drainage ways	10

DESCRIPTION OF THE PROPOSED PROJECT

The Department of Design and Construction, City and County of Honolulu, proposes to construct park improvements at Waiāhole Beach Park located at Waiāhole, District of Koʻolaupoko, City and County of Honolulu, State of Hawaiʻi. Waiāhole Beach Park is bounded by Waikāne Stream on the north, Waiāhole Stream on the south, Kaneʻohe Bay on the east, and Kamehameha Highway on the west. **Ten** *Eleven* unconsolidated lots comprise the beach park. The lots and acreages are as follows:

<u>Tax Map Key</u>	<u>Acres</u>
4-8-002: 001	14.233
:002	1.006
:004	0.322
:005	1.062
:006	0.321
:007	0.0265
:008	0.850
:009	0.411
:010	0.35
:011	1.185
:012	<u>0.26</u>
	20.0265

[A 0.850 acre lot (Tax Map Key 4-8-02: 008)] at the northern end of the park adjoining the mouth of Waikāne Stream] **Parcel 008** is part of the beach park but not included in the Waiāhole Beach Park Master Plan **because there are no improvements planned for this lot at this time (Department of Planning and Permit Comment)**. A Location Map and Tax Map are shown in Figures 1 and 2.

A. Conceptual Development Scheme

The kinds of recreational facilities and their placement at Waiāhole Beach are conditioned in part by the physical configuration of the land. The park is bordered by the ocean and two streams and is linear in form. It is narrow and elongated in the center and wide at the north and south ends. The southern end is deeper than other parts of the park.

Because of its greater depth and hence developable area, the southern portion is proposed for active recreation activities and support facilities. The remainder of the park is proposed for passive recreational activities principally open space and picnic areas. The Waiāhole Beach Park Master Plan is shown in Figure 3.

The beach park adjoins Kamehameha Highway and *makai* views to Kaneʻohe Bay and beyond from the road are common along its entire length. Panoramic views are prevalent in the narrow sections of the park while dense vegetation limits direct views of the ocean in the northern and southern ends. Ocean facing views are a valuable public resource and should be maintained and enhanced where possible.

B. Technical Characteristics

1. Open Space/Play Field

An open field of approximately 5 acres is proposed to accommodate active recreation activities. The open field is located at the southern end of the park and is sufficiently level and large enough to accommodate field activities. The master plan recommends that a multi-purpose field be constructed to accommodate primarily a youth baseball field (60-foot bases) and soccer field. The soccer field will overlay the outfield of the baseball field. Other field sports also would be able to make use of the multi-purpose field. ***There are no plans at this time to add field lights for night use (Response to Waiahole Landowners Association Comment).***

2. Access and Parking

Kamehameha Highway is the only road passing Waiāhole Beach Park. Because of the length of the beach park and the need to provide off-street parking for park users, access from Kamehameha Highway is planned at two locations with a third access reserved for construction at a future time.

An off-street parking area for approximately 50 vehicles is proposed near the middle of the park. The parking area parallels Kamehameha Highway and includes a vehicle turn around/drop-off near a proposed comfort station. The parking lot would be accessed from Kamehameha Highway via a two-way driveway.

A smaller parking area (for 20 vehicles) is planned to the north of the larger parking area and separated from it by an existing drainage way. This parking area would provide parking for users recreating in the northern areas of the park.

A future driveway and park road is proposed opposite Waiahole Valley Road. The driveway would provide a second access to the multi-purpose field and picnic areas situated along the shoreline and Waiāhole Stream. The driveway would terminate in a parking area makai of the multi-purpose field.

The State Department of Transportation recommended that left turn storage lanes be provided for turning movements into the planned parking lots from Kamehameha Highway. The City and County of Honolulu will coordinate this highway improvement with the State Department of Transportation.

Traffic barriers are proposed along Kamehameha Highway for safety reasons. The barriers should be installed within the road-right-of-way per State Department of Transportation construction and highway safety standards.

Vehicle barriers will be installed around driveways and parking lots to prevent people from wantonly driving vehicles over the park grounds.

3. Drainage

Two new 18" drain lines are proposed at the multi-purpose field. The drain lines will tie into existing drain lines under Kamehameha Highway which discharges runoff onto the park grounds from areas mauka of Kamehameha Highway. One drain line would discharge into

an existing ditch near Waiāhole Stream and the second would discharge in a low area makai of the main parking lot.

Four existing earthen ditches in the middle and northern sections of the park will be retained as is for drainage purposes. These ditches drain areas mauka of Kamehameha Highway.

4. Public Facilities

Water will be brought to the site from an existing municipal water line along Kamehameha Highway.

A comfort station is proposed near the turnaround of the main parking lot. Because there is no municipal wastewater disposal system available in Waiāhole and until such time that a wastewater system is built, wastewater would have to be disposed via an individual wastewater system using septic tanks for holding solids and disposal fields for effluent disposal.

5. Landscaping

The Master Plan does not make specific landscaping recommendations. Landscaping is recognized, however, as a necessary design feature that can enhance the park experience and the facilities that are proposed. The Master Plan recommends that design plans prepared for the park and its facilities preserve as many of the native plants *in situ* as possible. Native species should be used as design elements in the park landscape. ***The Board of Water Supply recommended the use of drought tolerant plants in the landscaping and use of non-potable water for irrigation.***

6. Ancillary Improvements

A continuous, accessible walkway is proposed to provide access to and along the shoreline, picnic/passive recreation areas, Waiāhole Stream, and the multi-purpose field. The walkway should be designed as a multi-use path for joggers, bicyclists, and the handicapped.

Picnic areas and areas for passive recreation are proposed throughout the park. Furniture such as picnic tables, benches, charcoal disposal units, and refuse containers should be placed in these areas.

A State bikeway is proposed along Kamehameha Highway. The alignment and dimensions of the bikeway and its relationship to the park should be coordinated with the State Department of Transportation

Two archaeological sites have been discovered on-site (Cultural Surveys Hawaii, 2002). As recommended by the consulting archaeologists, the two sites will be preserved in place. A preservation plan will be prepared and submitted to the State Historic Preservation Division for review and approval.

The Department of Design and Construction and Parks and Recreation will consider developing a signage program for the historic and cultural sites (Response to Waiahole Landowners Association).

7. Wetland Mitigation

The Waiāhole Beach Park Master Plan identifies two areas for wetland enhancement on City-owned land to the south of Waiāhole Stream (TMK: 4-8-001: por. 010). One area under consideration is depicted as existing wetlands on the Waiāhole Beach Park Master Plan. A second area located to the south of the existing wetlands may have been a former wetland. Wetland enhancement is proposed as a mitigation measure for the inadvertent filling of jurisdictional wetlands during a community clean-up of Waiāhole Beach Park in 1996.

A Wetland Concept Plan (AECOS, 2003) has been prepared for the area and incorporates the restoration of former taro *lo'i* makai of Kamehameha Highway. A development plan for wetland enhancement has not been developed at this time and the City and County of Honolulu has not endorsed the *lo'i* restoration concept.

C. Economic Characteristics

The City and County of Honolulu owns the land comprising Waiāhole Beach Park.

The cost of the Master Plan improvements is estimated at \$7.601 million (\$2005) and will be funded by the City and County of Honolulu. Phase I construction will commence after all necessary permits and approvals are received. Implementation of the latter phases will be contingent on the availability of public funds and the priority assigned to the improvements.

A four-phase implementation schedule is proposed. The improvements proposed for each phase are summarized below.

Phase 1

- Grub and Grade Open Field Area
- Construct Open Field Play Area
- Construct Large Parking Area
- Install Baseball Backstop
- Install Water System
- Install Vehicle Barriers
- Construct Walkways
- Landscape Open Field
- Provide Park Furniture

Phase 2

- Construct Comfort Station
- Install Septic Tank and Leach Field

Phase 3

- Grub and Grade Passive Recreation Areas
- Construct Small Parking Area
- Construct Walkways
- Install Vehicle Barriers
- Landscape Passive Recreation Areas
- Provide Park Furniture

Phase 4

Construct Future Driveway and Park Road
Construct Future Parking Area Makai of Open Field

D. Social Characteristics

Accessible walkways and parking will be designed in compliance with rules, regulations, and accessibility standards for outdoor recreation areas of the Americans with Disabilities Act. The walkways will link all facilities in the park.

With the exception of parcel 008 which is occupied by a signed tenant, the beach park is unoccupied thus no resident will be displaced because of the proposed improvements. [A family occupies the northernmost lot at the beach park.] There are no improvements planned for this lot at this time.

Two separate occupied house sites are located in the area proposed for wetland mitigation. One household claims to be paying rent to the City while the other pays no rent. Both households will be apprised of the plans for the area and asked to relocate. Relocation assistance will be provided if the City determines that they are eligible for assistance.

E. Community Presentation

The Waiāhole Beach Park Master Plan was presented to the Waiahole Community Association on May 31, 2000 and the Kahaluu Neighborhood Board on January 9, 2002. Since that time two revisions have been made to the plan. An archaeological inventory survey of the beach park conducted after the presentations uncovered several burial sites and a *pohaku o kane*. As recommended by the consulting archaeologists, both features will be preserved *in situ* and this is shown on the master plan.

The second change involves setting aside an area for wetland mitigation. A Wetland Concept Plan prepared for the project recommended that an area on the south side of Waiāhole Stream be used for this purpose. This area is shown on the master plan as Existing Wetlands.

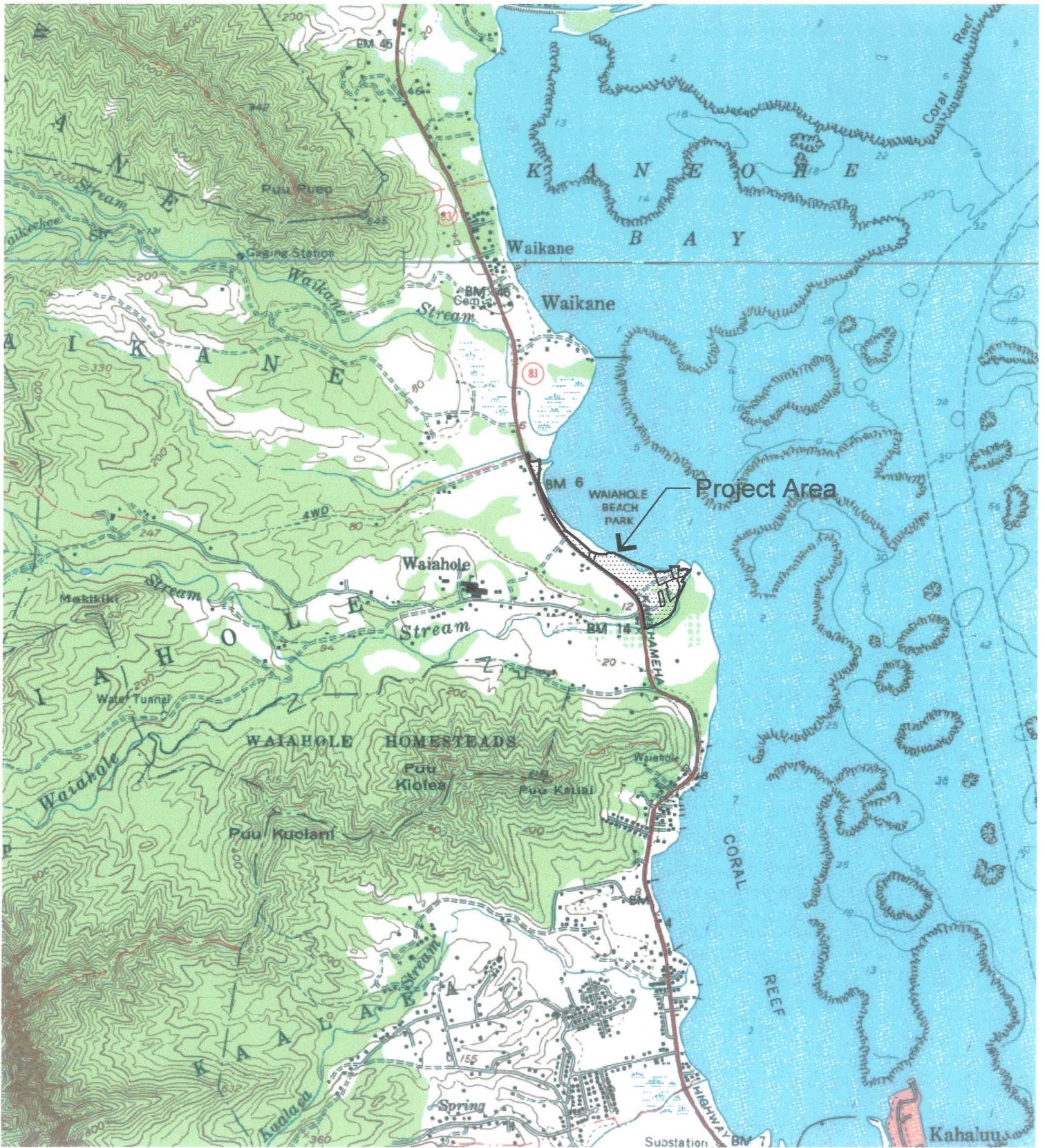
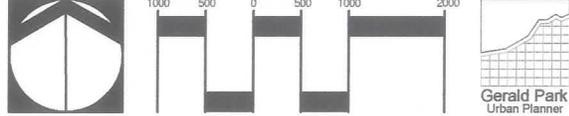


Figure 1
 Location Map
 Waiāhole Beach Park

City & County of Honolulu Waiahole, Ko'olaupoko District, O'ahu



Source: USGS, Kahana & Kaneohe Quadrangles

10/15/05 2:17
 SEP 20 10 30
 101 88 1982
 91576

Appr. by: _____
 Revised by: _____
 Appr. by: _____
 August 22, 1983
 Bureau, Survey Dept.
 68, 70, & 72

FIRST DIVISION		
ZONE	SEC.	PLAT
4	8	02
CONTAINING PARCELS		
Scale: 1 in. = 100 ft.		

Source: Department of Taxation, Tax Map Bureau

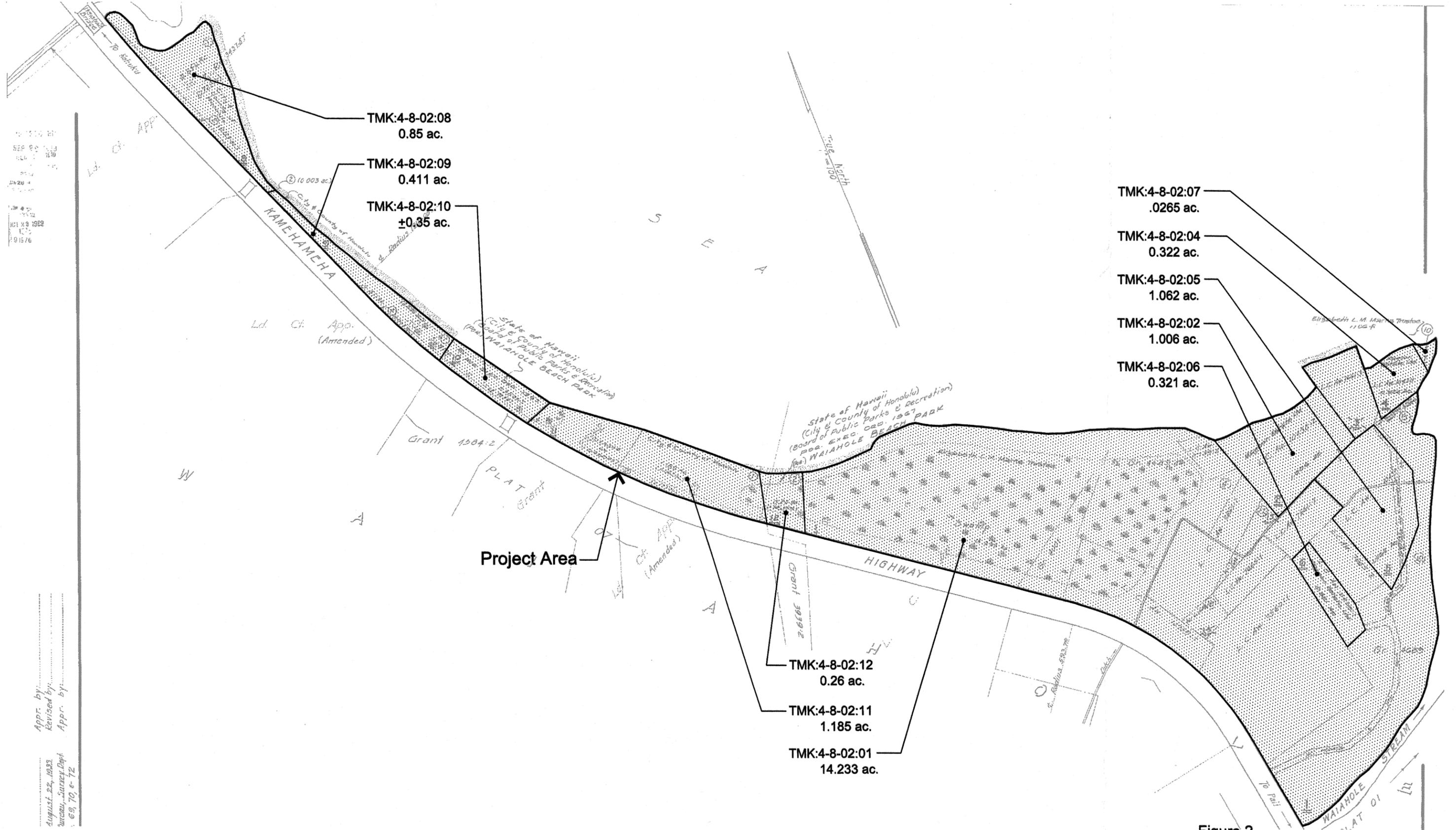
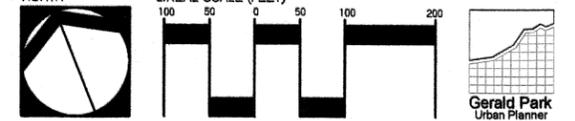
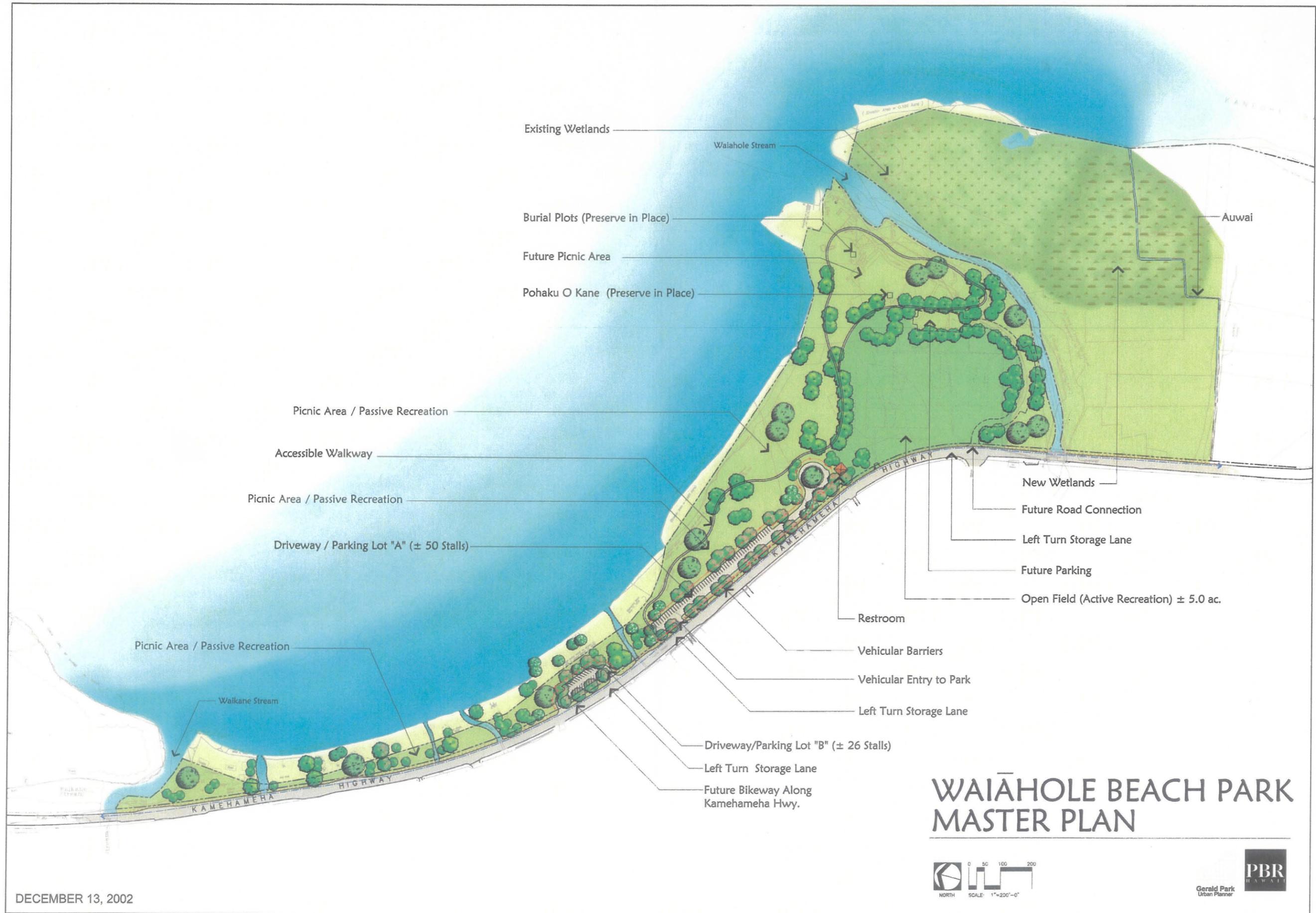


Figure 2
Tax Map Key
Waiāhole Beach Park

City & County of Honolulu Waiāhole, Ko'olaupoko District, O'ahu



Gerald Park
 Urban Planner
 September 2005



Existing Wetlands

Waiahole Stream

Burial Plots (Preserve in Place)

Future Picnic Area

Pohaku O Kane (Preserve in Place)

Auwai

Picnic Area / Passive Recreation

Accessible Walkway

Picnic Area / Passive Recreation

Driveway / Parking Lot "A" (± 50 Stalls)

New Wetlands

Future Road Connection

Left Turn Storage Lane

Future Parking

Open Field (Active Recreation) ± 5.0 ac.

Picnic Area / Passive Recreation

Waikane Stream

Restroom

Vehicular Barriers

Vehicular Entry to Park

Left Turn Storage Lane

Driveway/Parking Lot "B" (± 26 Stalls)

Left Turn Storage Lane

Future Bikeway Along Kamehameha Hwy.

WAIĀHOLE BEACH PARK MASTER PLAN



DECEMBER 13, 2002



A. Existing Use

Waiāhole Beach Park is vacant and without recreation improvements. The land has been cleared of many exotic trees and much scrub vegetation thus opening up views to Kane'ōhe Bay and the shoreline from Kamehameha Highway. Much of the cleared area in the center and southern sections are planted with grass and maintained as open space (See Images 1 and 2). The open space area is relatively free of debris and litter.

A small, gravel/earthen off-street parking area provides a place for park users to park their vehicles off Kamehameha Highway. Located near the center of the park, the lot is marked by lengths of remnant concrete piles. The pilings are intended to prevent people from driving vehicles along the shoreline.

A larger off-street area used for parking is located to the north of the small parking area. The area has been cleared of vegetation (except for trees) and portions have either been grassed or left barren (See Images 3 and 4). The barren areas are rutted by vehicle tracks.

Scattered along the shoreline one can find uprooted trees, bottles, cans, tires, plastics, discarded fishing net, lumber scraps, small overturned boats, an abandoned automobile, automotive engine parts, and assorted paper products. Rubbish containers are set up but not always used. A canoe-like craft is moored on the shoreline near the southern half of the park.

Four drainage ditches were identified that drain areas mauka of Kamehameha Highway. The drainages pass under Kamehameha Highway through concrete culverts and discharge (if their outlet is not blocked by sand) into Kane'ōhe Bay. Two of the drainages are debris-laden waterways.

Historically, the beach park lands or portions of the beach park lands have been used for agricultural activities including growing taro, cultivating rice, grazing cattle, and raising pig. Fishing was a common activity along the shoreline as was crabbing. Residential activities in support of the agricultural activities or stand-alone residences were once located on the southern end of the park (they have since been removed). It has also been reported that a church was once located on the south end of the beach park. A family currently lives on the northern end adjoining the mouth of Waikane Stream but this property is not planned for park use as this time.

B. Climate

Climatic conditions at Waiāhole and Waikāne can be characterized as mild, equable, and wet. Average temperatures range between 70^o to 80^oF. Rainfall along this coastal section of the Windward Oahu averages 70 inches annually. In comparison, the summit areas of the Ko'olau Mountain Range (those areas in excess of 2,000 feet above mean sea level) receive in excess of 200 inches of rainfall per year.

The entire Windward coast is exposed to the prevailing northeast trade winds. While the



Photo 1. Open space area at southern end of Waiāhole Beach Park.



Photo 2. South view of open space area from middle of the park.



Source: Aerial Photo, Air Survey Hawaii. August 1999



Photo 3. View of park looking north.



Photo 4. South facing view fronting one of the earthen drainage ways.

Site Photographs
Waiāhole Beach Park Master Plan
City & County of Honolulu Waiāhole, Island of Oahu



trade winds help to produce orographic rainfall in the Ko'olau Mountains, the winds also cool the island producing slight variations in day and night temperatures. In general, the trades are more persistent in summer than in winter and stronger in the afternoon than at night. The trade winds blow out of the north to northeast about 60% of the time at speeds between 13-24 miles per hour (Atlas of Hawaii, 1983).

C. Topography

Flat land standing slightly above sea level comprises most of the beach park. Although a topographical survey has not been prepared for the entire park, surveys of various sections of the park show the land to be highest at the southern rather than the northern end. From Kamehameha Highway the terrain slopes in the direction of the ocean. In the area proposed for the multi-purpose field, ground elevation falls from a high of 7 feet above sea level at Kamehameha Highway to sea level at the shoreline. Kamehameha Highway at this location is actually about 5 feet higher in elevation than the park.

Central and northern sections of the park have not been surveyed. Here, the ground also slopes from the Highway to the ocean. Ground elevation is estimated to be about 2 to 3 feet above sea level.

D. Soils and Land Type

Soil Conservation Soil Maps (1972) identify two soil types---Pearl Harbor clay (Ph) and Hanalei silty clay (HnA) as occurring at Waiāhole Beach Park. Both clay soils are gray on the surface and subsurface and found on flood plains or coastal plains near the ocean. The soils are moderately permeable and runoff is very slow. This may account in part for much of the ponding that occurs following heavy rainstorms.

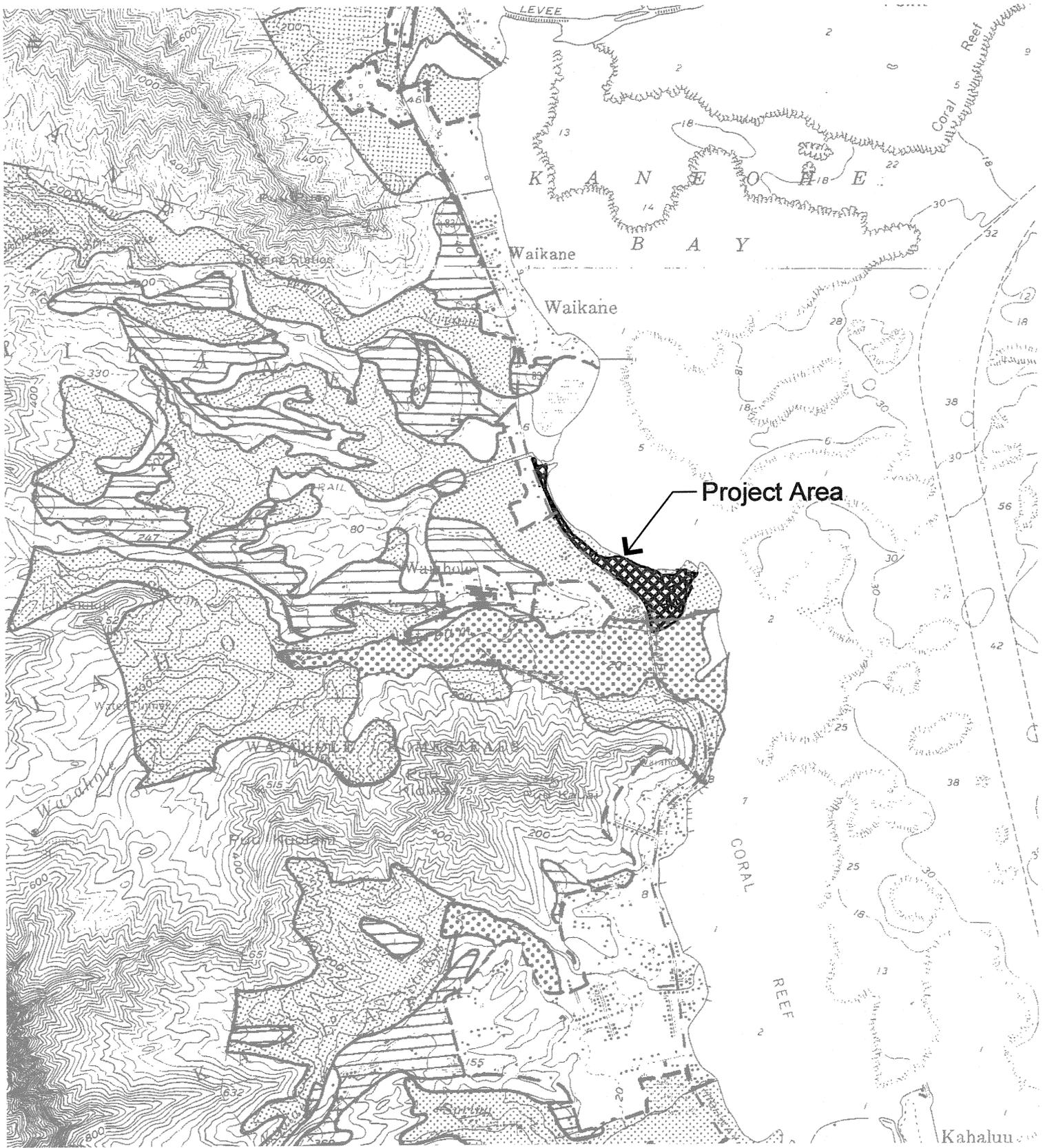
Detailed Land Classification Maps (1972) classify the land E57 and E59. The letter "E" is a rating that means the land is poorly suited for agriculture and the numbers "57 and "59" are the land type.

The Department of Agriculture, State of Hawaii classifies agriculturally important lands into three categories: prime agricultural land, unique agricultural land, and other important agricultural land. The categories are plotted on Agricultural Lands of Importance to the State of Hawaii (ALISH) maps. The ALISH map for the project area (Figure 4) depicts the following for the beach park: 0.0 acres of prime agricultural land, approximately 2 acres of unique agricultural land, and approximately 17 acres of other important agricultural land.

E. Flood Hazards

The Flood Insurance Rate Map for the area places Waiāhole Beach Park in Flood Zones AE and AH (See Figure 5). Zone AE is defined as "Areas of 100-year flood; base flood elevations determined" and Zone AH as "areas of 100-year shallow flooding where depths are between one to three feet; base flood elevations determined (Federal Emergency Management Agency, 2000)." The area designated Zone AE covers the southern portion of the park and roughly corresponds to the Master Plan open field and future picnic area. Areas to the north of the open field up to the vicinity of Waikāne Stream are designated Zone AH.

The base flood elevations for the AE areas are estimated at between 7 feet along the ocean

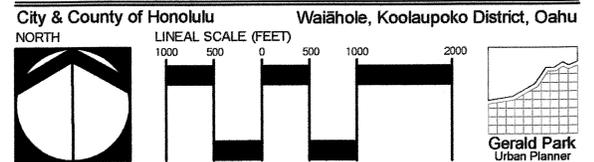


Legend

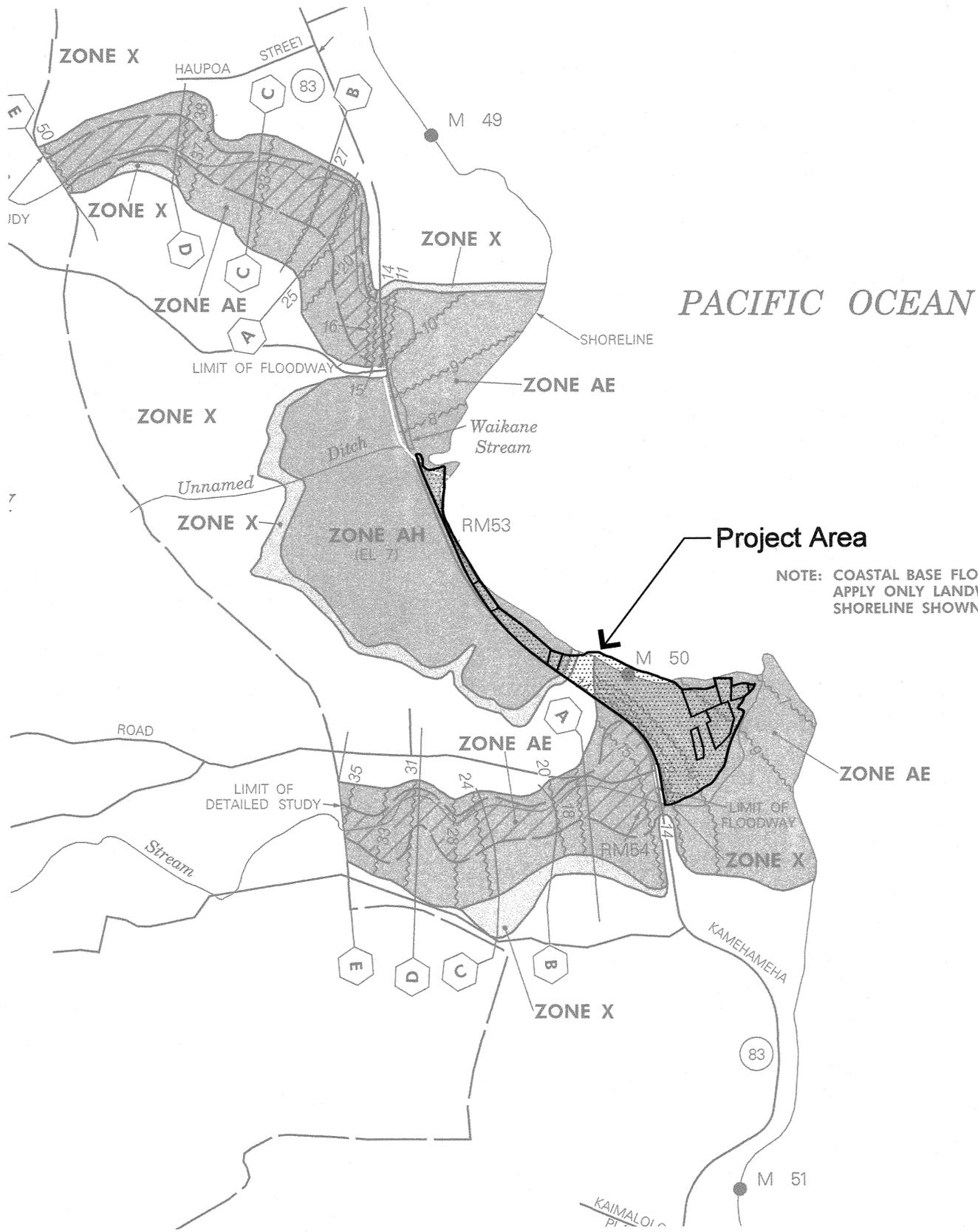
-  Prime Agricultural Land
-  Unique Agricultural Land
-  Other Important Agricultural Land

Source: Department of Agriculture, State of Hawaii, 1977.

Figure 4
Agricultural Lands of Importance to the State of Hawaii
Waiāhole Beach Park



Gerald Park
 Urban Planner
 September 2005



PACIFIC OCEAN

Project Area

NOTE: COASTAL BASE FLOOD ELEVATIONS APPLY ONLY LANDWARD OF THE SHORELINE SHOWN ON THIS MAP.

- Legend**
- Special Flood Hazard Zone Inundated by 100-Year Flood
 - Zone AE Base Flood Elevation Determined.
 - Zone AH Flood Depths of 1 to 3 Feet (Usually Areas of Ponding); Base Flood Elevations Determined.
 - Floodway Area in Zone AE
 - Zone X Areas Determined to be Within 500-Year with average depth of less than 1 foot.
 - Zone X Areas Determined to be Outside 500-Year Floodplain.

Source: Federal Emergency Management Agency
 Flood Insurance Rate Map
 Map Number 15003C0165E & 15003C0255E
 Date: November 2000.

Figure 5
Flood Insurance Rate Map
Waiāhole Beach Park

City & County of Honolulu Waiāhole, Ko'olaupoko District, O'ahu

NORTH

LINEAL SCALE (FEET)
 500 250 0 250 500 1000

Gerald Park
 Urban Planner
 September 2005

to 12 feet just makai of Kamehameha Highway; the base flood elevation of the AH zone is 7' above mean sea level.

Land adjoining Waiāhole and Waikāne Streams mauka of Kamehameha Highway are in the Floodway of Zone AE. The limit of the Floodway ends on the mauka side of Kamehameha Highway.

The Flood Insurance Rate Map does not delineate a coastal high hazard district for Waiāhole Beach Park.

F. Water Resources

1. Streams

Two perennial streams bound the beach park. Waiāhole Stream to the south drains an area of 2,260 acres, extending from the crest of the Ko'olau Mountains to Kaneohe Bay. The basin occupies a relatively high rainfall area with a mean annual rainfall of 121 inches. Uwau and Wainu Streams in Waiāhole Valley are tributaries of Waiāhole Stream. The lower reach of Waiāhole Stream forms the southern boundary of Waiāhole Beach Park.

Waikāne Stream to the north has a drainage basin of about 2,430 acres, located in a high rainfall area. Mean annual rainfall is 112 inches. Waikēeke Stream in Waikāne Valley is a tributary of Waikāne Stream. The Kaneohe Bay Master Plan identifies Waikāne Stream as "...the least modified stream of the Kaneohe Bay watershed. It also provides most of the fresh water input to the northern end of the Bay." The lower reach of Waikāne Stream forms the northern boundary of Waiāhole Beach Park.

2. Wetlands

A field survey to identify areas where wetland conditions (hydric vegetation, hydric soils, and wetland hydrology) prevail at Waiāhole Beach Park was conducted in June 2000. This part of the coastal lands lies between the larger Waiāhole and Waikāne sections and has been cleared of (mostly) hau (*Hibiscus tiliaceus*) and Java Plum (*Syzygium cummingi*) by community involvement over the last several years. The "existing" Waiāhole Beach Park, consisting of a parking area extending from Kamehameha Highway to close to the shore of Kaneohe Bay was more or less surrounded by hau, has been gradually improved by clearing of larger trees and periodic maintenance of the extensive grassy areas created after grubbing of the site. The parking lot, with cooperation from the City and County, has been isolated from the surrounding land by placement of concrete barriers to restrict off-road vehicular access. An area of unauthorized fill was created adjacent to the parking lot on the east side.

Most of the land that lies between Waiāhole Stream and an unnamed stream (Waianu Stream in some sources; State ID No. 3-2-04) is indicated on the U.S. Fish and Wildlife wetlands inventory map (USFWS 1984, 1995) as having two wetland zones sandwiched between upland at the highway and the marine zone (coded M10WL) off the shore. These two wetland zones are coded E2FO3N (immediately behind the shore) and PFO3C (next inland). The USFWS wetland classification codes are defined (USFWS, 1995) as follows:

SYMBOL	DEFINITION
E2FO3N	Estuarine, intertidal, broad-leaved evergreen, forest (regular, tidal)
PFO3C	Palustrine forest
M1OWL	marine, subtidal, open water (unknown bottom)

The original beach park (the present day parking area) is shown as upland (not wetland) on the inventory map. Both E2F3ON and PFO3C refer here to hau forest wetlands (AECOS, 1995) and the distinction between the types is not really important, since the boundaries were determined from aerial photographs rather than by testing where estuarine waters became fresh waters.

It is evident from our survey that almost none of this hau wetland exists anymore at the project site. However, the wetland inventory maps do not necessarily describe jurisdictional wetlands, since not all areas indicated as wetlands on the maps were subjected to field validation. Nonetheless, recent activities at the beach park suggest a portion of a former wetland might well have been filled. A purpose of the field inspection (of June 27, 2000) was to determine if and how much of this wetland existed until recently and to identify other wetland sites that might be present on this parcel of land.

The toe of the unauthorized fill is clearly visible south of the parking lot. A topographic change is evident along with a dominance of hydrophytes (i.e. plants that grow in permanently or periodically water saturated soils) beginning at this toe. The former size of the wetland is unknown. Assuming that the northern boundary was along the edge of the present-day parking area and using our measurements from there to the southern edge, an area of about 0.72 acres can be estimated. The area that was filled comprises some 19,200 sf (61%) of the wetland. These are approximations only and probably over estimate the true former size of the wetland and recent fill.

Southeast Corner

A low spot near the southern end of the site (park) is a wet area that meets the vegetation criteria for a wetland but does not qualify on the basis of soil or hydrology. Vegetation cover is estimated at 80% Hilo grass (*Paspalum conjugatum*-FAC), 10% honohono (*Commelina diffusa*-FACW), and 5% California grass (FACW). The remainder of the vegetation of this site is a mix of wetland and fastland species, including false daisy (FACW), primrose willow (*Ludwigia octovalvis*-OBL), beach wire grass (*Eleusine indica*-UPL), and sensitive plant (*Mimosa pudica*-UPL). This site has a gravel bottom and appears to be an old drainage ditch or edge of a cultivated field.

Drainage Ditches and Streams

North from the main parking area at Waiāhole Beach Park occur several small drainage ditches that traverse the park site from the highway to the Kane'ōhe Bay shore

The drainage ditch closes to the main parking area at Waiāhole Beach Park was designated #1. Ditch #1 and its adjoining vegetation are about 15m across (50 feet). The ditch is surrounded by hau (*Hibiscus tiliaceus*), mangrove (*Rhizophora mangle*), tropical almond or false kamani (*Terminalia catappa*), milo (*Thespesia populnea*), and pandanus trees (*Pandanus tectorius*). The scrub vegetation includes Job's tears (*Coix lachyama-jobi*), honohono, California grass, Hilo grass, seashore paspalum (*Paspalum vaginatum*), maile

pilau (*Paederia scandens*), and sour bush (*Pluchea symphytifolia*). At sometime in the past, fill was put in on both sides this ditch. This ditch was described by AECOS (2000) thusly:

"Box culvert draining unknown area mauka of Kamehameha Highway at Waiahole Beach Park. In this area Waiahole and Waikane valleys form a broad coastal plain which is fed by several drainages in addition to Waiahole and Waikane streams. A small wetland exits from just mauka of the culvert to the shoreline of Kaneohe Bay. Standing water extends from a couple of meters inland of the road seaward for a distance of 2/3 of the distance between the road and the shore of Kaneohe Bay. The area is relatively open, with mostly small *hau* (*Hibiscus tiliaceus*) plants and California grass (*Brachiaria mutica*), the latter mostly dead presumably because of ditch maintenance spraying. The water here harbors apple snails (*Pomacea canaliculata*), short-fin mollies (*Poecilia mexicana*), tiplapia (?*Sarotherodon* sp.), and American bullfrog (*Rana catesbeiana*...). This site can be described as a low quality wetland draining low areas mauka of the highway in Waiahole Valley. Water quality problems noted here are low dissolved oxygen content and somewhat elevated total phosphorus (TP). Ammonia is also elevated. Both high ammonia and low DO are characteristic of stagnant water."

Ditch #2 is approximately 6m (20 feet) wide with steep banks. There are some *hau*, Java plum, tropical almond, and ironwood (*Casuarina equisetifolia*) trees along the banks along with wedelia, and Queen Emma's lily (*Hymenocallis littoralis*). Here again fill has created steep banks along this small ditch.

Ditch #3 was dry except for a limited area right around the culvert that passes under Kamehameha Highway. The only trees present are *hau* and tree heliotrope (*Tournefortia argentea*). Ground covers are wedelia, beach morning-glory (*Ipomea pes-caprae*), and ivy gourd (*Coccinia grandis*).

Ditch #4 is a flowing stream. Much of the open water is filled with the water fern, *Salvinia molesta*. There are coconut (*Cocos nucifera*) tropical almond, and octopus (*Schefflera actinophylla*) trees along the banks. There occurs some California grass, Johnson grass (*Sorghum halpense*), and koa haole (*Leucaena leucocephala*) in the immediate area. This wetland appears to expand laterally between the highway and the beach.

"This ditch is part of area drainage around an unnamed stream (Waianu in some ...records...) that drains the southern part of Waikane Valley. A box culvert drains mauka wetlands through a drainage ditch into a dense forest of *hau* and false *kamani* (*Terminalia catappa*) behind the beach. Mauka of the highway, the ditch lined with *hau*. The water fern, *Salvinia molesta*, is abundant on water surface, especially where sunlight hits the water closest to the culvert; there occurs some California grass in this area as well. Water quality problems noted here are very low dissolved oxygen content, high turbidity, and elevated nutrient content (nitrate, ammonia, TN, and TP). Both high ammonia and low DO are characteristic of stagnant water. The other characteristics indicated inputs of nutrient-rich water such as wastewater from septic systems. Turbidity appeared to be related to runoff from erosion of reddish soils somewhere upstream. Of all the locations, surveyed, Station 2 had perhaps the worst water quality overall."

Further on up the highway is found another drainage ditch feeding into a channel that appears to be connected to Waikāne Stream (State ID No. 3-2-02). Although essentially

part of the Waikāne section of the proposed Waiāhole-Waikāne Park, a description from AECOS (2000) is included for future reference (a future draft of this report will include this area).

"This ditch is part of extensive area drainage south of Waikane Stream and may connect to that stream near its mouth. Water appeared stagnant, the ditch surrounded by Java plum (*Syzygium cummingi*) and false *kamani*, with umbrella sedge (*Cyperus alternifolius*), Job's tears (*Coix lachryma-jobi*), taro (*Colocasia esculenta*), and day-flower (*Commelina diffusa*) abundant in and along banks. Indeterminate poeciliids (top minnows) are present, along with apple snails. Water quality problems noted here are low dissolved oxygen content, very high ammonia and other nutrients (nitrate, TN, and TP). Both high ammonia and low DO are characteristic of stagnant water. Generally, elevated nutrients could influence from nearby septic systems. This water body has somewhat better water quality than nearby Station 2, while showing less influence from marine waters (i.e. lower conductivity). Reduced salinity probably reflects the somewhat greater distance from the shore of Kane'ohē Bay of Station 3 than Station 2, and influence on the former of Waikane Stream."

3. Groundwater

Waiāhole Beach Park overlies a coastal section the Koolaupoko aquifer of the Windward Sector (Mink and Lau, 1990). The Koolaupoko aquifer is characterized by an unconfined basal aquifer in non-volcanic sedimentary rock above a confined basal aquifer in dike compartments. The upper water body is currently used, ecologically important, low in salinity (between 250 and 1,000 mg/l Cl⁺), irreplaceable, and highly vulnerable to contamination.

The lower aquifer is currently used for drinking, its water is fresh (<250 mg/l Cl⁺), is replaceable, and moderately vulnerable to contamination (Ibid).

G. Marine Resources

The discussion of marine resources is excerpted from "A Natural Resources Inventory of Coastal Parcels at Waiahole and Waikane on Windward Oahu" prepared by AECOS, Inc. (1995). The AECOS report was prepared for use in an Environmental Assessment prepared for "Acquisition of Scenic Lands Along Kamehameha Highway at Waiahole and Waikane Valleys, Koolaupoko District, Oahu, Hawaii" (Park, 1995).

1. Physical Description

The nearshore marine environment between the Waiāhole and Waikā'ne parcel consists of an approximately 3.4 kilometer section of the northwest shoreline of Kaneohe Bay. This area is characterized by broad, shallow, depositional mud flats produced by the settling of suspended particulates contained in stream flow (AECOS, 1979; MR, 1988). This phenomenon results in turbid water conditions. The mud flats largely obscure the fringing reef that would otherwise be present in this area. In addition to mud, dark silt and fine sand deposits comprise the nearshore sediments, and basalt cobbles occur near shore. Tree parts (mostly hau leaves and branches) and flotsam rubbish (e.g. plastic debris, metal cans) are scattered along the surge zone of the beach. Bathen (1974) noted such items in this area over 20 years ago.

A network of patch reefs begins approximately 200 m from the shoreline, interspersed within the mud flats. These patch reefs are composed of biogenous limestone. Their top surfaces are one to two meters below sea level, with steep sides extending down to the mud flats. Such physiographic features are typical of the northern sector of Kane'ohe Bay, and the Waiāhole-Waikāne area does not appear to represent any unique or unusual environment in this respect (MRC, 1988).

The seaward extension of the patch reefs terminates in the main Kane'ohe Bay channel. This channel presumably represents the drowned course of either Waiāhole or Waikāne Stream, which formed during a lower stand of sea level in the past (AECOS, 1979). The channel bottom is composed of mud.

The generalized circulation pattern described for Kane'ohe Bay (Smith et al. 1981) is southerly along the inner reaches of the north bay in the vicinity of Waikāne Stream. Several small eddies form along the shoreline off Waikāne as a result of the weak, northwesterly circulation offshore being balanced by a deep (below 3 m) southeasterly flow along the shoreline (Bathen, 1975).

2. Marine Biota

In general, the Waiāhole-Waikāne mud flats harbor a low diversity of organisms due to a lack of diverse substrata. A checklist of species known to occur in this area is presented in Appendix A. Alpheid shrimp, whose burrow entrances can typically be seen punctuating the bottom of the mud flats, are common inhabitants in the nearshore area (MRC, 1988). Benthic macroalgae, serpulid worms, and bryozoans may also be prevalent on the flats (Maragos, 1972; Bathen, 1974; Bowers, 1976). Sea urchins and sea cucumbers may be seen occasionally (MRC, 1988). Live corals do not exist in this nearshore environment.

Offshore, the patch reef community consists mainly of coral colonies and calcareous algae (primarily *Porolithon* spp.). The dominant coral is *Porites compressa*, commonly known as finger coral (AECOS, 1979; MRC, 1988). Occasional colonies of *Pocillopora damicornis* and *Montipora verrucosa* can be observed (Bowers, 1976; MRC, 1988). Algal composition on the patch reefs has varied considerably over the years and is dependent on location. Percent cover of the destructive green bubble alga (*Dictyosphaeria* spp.) has decreased to low levels (typically about 3% cover in this area) since the diversion of sewage in the late 1970s (AECOS, 1979; Smith et al., 1981; Maragos et al., 1985; MRC, 1988).

Overall, the fish community in the Waiāhole-Waikāne area is thought to be fairly typical of assemblages found throughout the bay (MRC, 1988). At least 42 species of fish are known to inhabit the patch reefs offshore of this area (AECOS, 1979). Eleven of these species are common and primarily include *Thalassoma duperreyi*, *Scarus* spp., and acanthurids (Bathen, 1974; AECOS 1979; MRC, 1988). The Kahaluu-Waikane section of Kaneohe Bay provides the largest yield of nehu (Hawaiian anchovy, *Stolophorus purpureus*) (Clarke, 1976). Nehu is an important commercial resource because it is the primary and preferred baitfish for the skipjack tuna (aku) fishery. Adult nehu tend to aggregate in shallow areas of the bay by and disperse into deeper waters at night.

Two species of marine animals may occur in the project vicinity that are Federally listed as threatened or endangered. The threatened green sea turtle (*Chelonia mydas*) occurs commonly along the windward coast of Oahu and has been encountered in the project area

(MRC, 1988). The endangered hawksbill turtle (*Eretmochelys imbricata*) is found infrequently in Hawaiian waters and may ostensibly occur in the project area. However, the area does not provide optimum nesting or feeding grounds for sea turtles.

H. Flora

As part of its wetland survey, AECOS Inc. also conducted a botanical survey. The results of the survey are found in Appendix A. The vast majority of recorded species are naturalized exotics with a dozen species identified as indigenous and eight species thought to be of Polynesian introduction (before 1778). None of the vegetation is considered rare, threatened, or endangered or proposed for such status.

I. Fauna

1. Terrestrial Fauna

No wildlife was observed at the time of our field survey. More than likely, mongoose and various species of rats browse or have established habitats on-site. Similarly, feral dogs and cats also may browse the site.

2. Stream Fauna

No threatened or endangered species listed or proposed for listing are known to occur in either Waiāhole or Waikāne Streams. Endemic aquatic animals found in both streams include pond snail (*Lymnaea volutata* Gould), opae kala'ole (*Atyoida bisculata*), opae o'eha'a (*Macrobrachium grandimanus*), 'o'opu 'akupa (*Eleoris sandwicensis*), 'o'opu nakea (*Awaous stamineus*), and aholehole (*Kuhlia sandwicensis*).

J. Archaeological Resources

Cultural Surveys Hawaii, consulting archaeologists, conducted an archaeological inventory survey of the entire beach park. The survey revealed the presence of two features both of which are located on the ocean side of the planned multi-purpose field. Descriptions of each feature are excerpted from their report.

Site 50-80-10-1086 is a concentration of six rectangular alignments located in the southeast portion of the project area adjacent to a modern pig pen and dog kennel. The site consists of a large, leveled earthen mound with six rectangular alignments grouped on top. The northwest side of the earthen mound is steeply sloped and drops at an approximate 45-degree angle to the natural land surface, one meter below. In and around the alignments is *ili'ili* pebble paving. This concentration of 6 rectangular aligned grave plots appear to be associated with a church which was once situated at this location within LCA 7661:3 (Kaukaliu) and is plotted on Dove's 1897 map of Waiāhole. In an informal interview with the current tenants of the land it was stated that approximately 10 years ago a group of Hawaiians from the Big Island visited the grave site to express aloha to their ancestors. Though no subsurface testing was performed to positively identify these as human burials, based on the presence of a church at this location and oral interviews with the current residents of the parcel it is probably[e] that this site dates to the mid-late 19th century.

Site 50-80-10-6396 is a large fine-grain basalt boulder which is identified as a God stone, or *pohaku o kane*. The *pohaku o kane* is lying on the surface of the ground adjacent to two

coconut trees. The boulder is elongated and water-rounded. This is commonly described as a roller in geology terms, derived from columnar basalt formation and rounded by intense ocean wave activity. It is likely that this stone was imported to the Waiāhole river delta.

K. Cultural Resources

Cultural Surveys Hawaii prepared a Hawaiian traditional cultural practice assessment for the 78 acres comprising the Waiāhole and Waikāne coastal flatlands. The Abstract from that report is reproduced here and summarizes their findings. Their findings are not limited to Waiahole Beach Park but cover a larger coastal area.

"Research and community consultation for this area suggest Waiāhole and Waikāne Ahupua'a are extremely rich in cultural traditions. Written sources document the area's connection to the Kumulipo, a creation story of Hawai'i. Legendary figures such as Māui, Hi'iaka, Kamapua'a, Laka, Kāne, Hua'a, Kapunohu, Olopana appear in the historic documentaion relating to the two ahupaa. Waikane was noted as a *pu'u honua*, a place of refuge in Ko'olaupoko. Waiahole is listed as one of several *ahupua'a* given first to the *kahuna* Lonoawohi and later to the *kahuna* Lonomauki. The many place names documented for Waiahole and Waikane reflect the areas colorful history of gods, demi-gods, famed ali'i and *kahuna* who have become a part of the spirit of the place.

Many Hawaiian families still live in Waiāhole and Waikāne. After initial consultations suggested there were many knowledgeable individuals living in the are, it was decided to focus the consultations on the study area, and families who had specific knowledge of the study area. The individuals consulted and interviewed described many traditions and practices, some of which have faded, others which are still very alive and others which had faded, but are now being revived.

Fishing traditions and gathering ocean resources remain strong in the area. Almost everyone consulted talked about fishing, crabbing or gathering shellfish or *limu* along the shoreline of the study. Two fishponds and five *'auwai* were identified in the study area. Many community members would like to see taro growing in the study area once again. A hau grove, considered sacred by some, was identified. Also in Waiahole was a *pohaku o kāne*, or family altar. Five areas of burials in the study area were identified during interviews and community consultation. Although plants were not stressed during interviews, a few informants pointed out plants which they felt held significance.

Traditions pertaining to the less tangible realm of the spirits were also shared by informants. Several had stories about spirits, *'aumakua*, ghosts, *akualele* or fire balls, *pō kāne* or night marchers and giant men."

L. Hazardous Materials

The Environmental Company (November, 2002) conducted a Phase I Environmental Site Assessment ("ESA") of the beach park as part of this Assessment. The ESA included limited soil sampling to determine the existence and extent of potential contamination in two waste pits associated with former pig pens owned by a previous tenant. Their findings are presented below.

"Results of the limited soil sampling indicated that soil beneath the former waste pits does not represent a significant environmental risk to human health from the environment. Small levels of lead and chromium were detected at both waste pits. In addition, Dieldrin and petroleum hydrocarbons in the gasoline range (TPH-GRO) were detected at one of the pits. The Hawaii Department of Health Risk Based Corrective Action (RBCA) levels for lead and total petroleum hydrocarbons (TPH-GRO), in areas where the source of drinking water is not at risk is 400mg/kg and 2,000 mg/kg, respectively. The U.S. Environmental Protection Agency Region IX Preliminary Remediation Goals (PRGs) were used to screen the levels of chromium and the pesticide, Dieldrin, since they are not included in the HDOH action levels. The U.S. EPA PRGs for chromium and Dieldrin is 210 and 0.3 mg/kg respectively. All sample results were well below these screening levels.

The review of property ownership and public records also led to no new concerns at this site. There was no evidence that current or past land uses could result in contamination or evidence uncovered to conclude that the site was contaminated as a result of on-site activities, currently or in the past.

The site is still littered with trash and unmarked containers and TEC recommends that these materials should be treated as hazardous waste and disposed of accordingly.

No further investigation is recommended in light of information uncovered during this ESA."

M. Land Use Controls

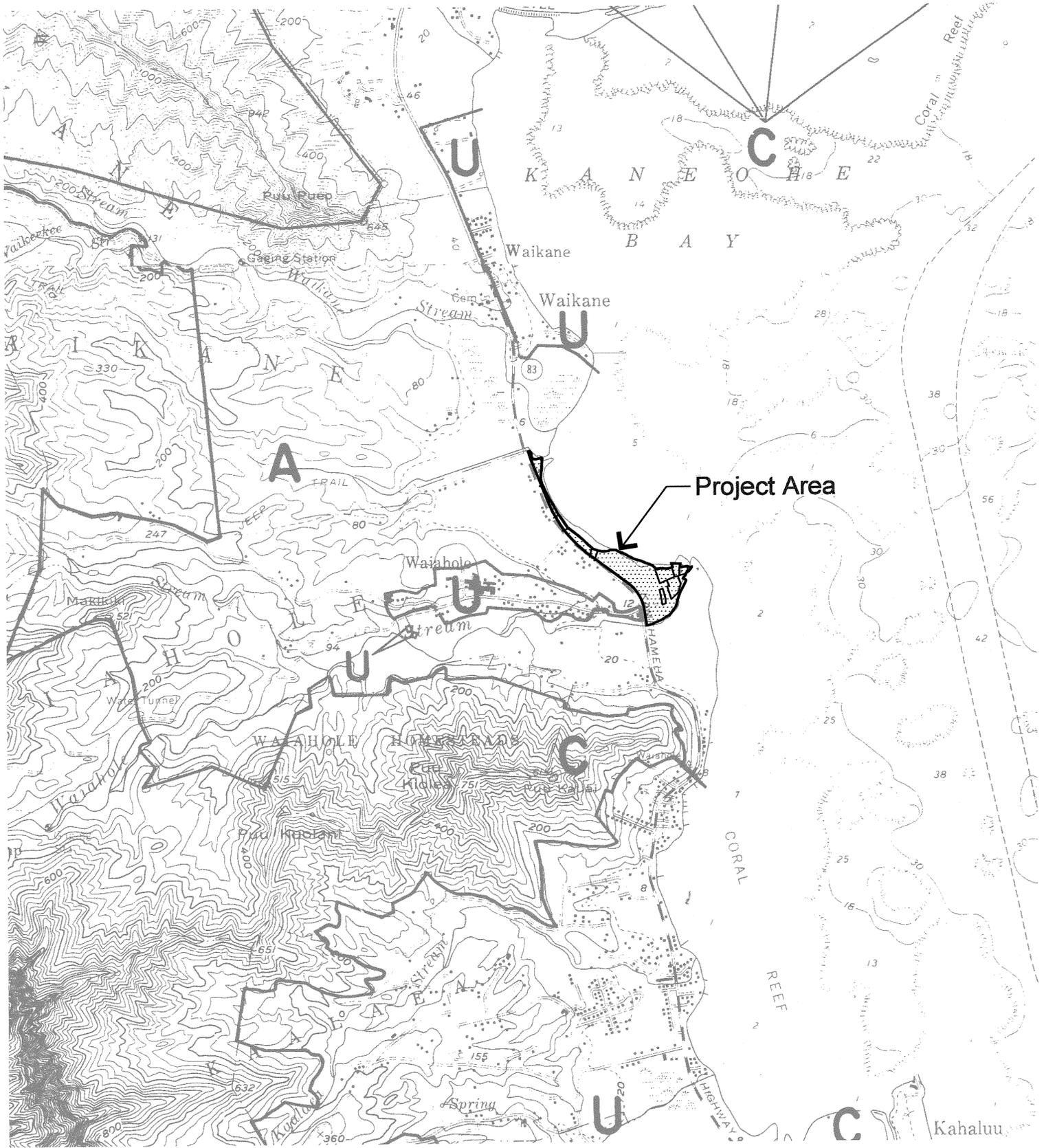
1. State Land Use District

The property is classified Agricultural by the State Land Use Commission (See Figure 6). The state land use law (HRS 205) restricts the use of agricultural district lands classified Class C, D, E, or U by the Land Study Bureau to "uses compatible with the activities described in section 205-2 as determined by the commission shall be permitted: provided that accessory agricultural uses and services described in sections 205-2 and 205-4 may be further defined by each county by zoning ordinance. Other uses may be allowed by special permits issued pursuant to this chapter." One of the permitted uses of section 205-2(d) is "open air recreational facilities, including golf courses and golf driving ranges." The uses proposed for Waiahole Beach Park are considered "open **area** recreation facilities" and thus consistent with section 205-2 of the state land use law.

2. O'ahu General Plan

"The General Plan for the City and County of Honolulu is a comprehensive statement of objectives and policies which sets forth the long-range aspirations of Oahu's residents and the strategies of actions to achieve them. It is the focal point of a comprehensive planning process that addresses physical, social, economic and environmental concerns affecting the City and County of Honolulu (General Plan)."

The general plan sets forth objectives and policies in eleven functional areas that can be achieved within a 20-year time span. Applicable general plan functional areas related to the proposed project are identified below.



Legend

- U Urban
- R Rural
- A Agriculture
- C Conservation

Source: State of Hawaii, Land Use Commission, Kahana (O-9) & Kaneohe (O-13) Quadrangles.

Figure 6
State Land Use
Waiāhole Beach Park

City & County of Honolulu Waiāhole, Koʻolaupoko District, Oʻahu

NORTH

LINEAL SCALE (FEET)

1000 500 0 500 1000 2000

Gerald Park
 Urban Planner
 September 2005

Natural Environment

Objective A. To Protect and preserve the natural environment.

Policy 1. Protect Oahu's natural environment, especially the shoreline, valleys, and ridges, from incompatible development.

Policy 2. Seek the restoration of environmentally damaged areas and natural resources.

Policy 3. Retain the Island's streams as scenic, aquatic, and recreation resources.

Objective B. To 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.

Culture and Recreation

Objective B. To protect Oahu's cultural, historic, architectural, and archeological resources.

Policy 1. Encourage the restoration and preservation of early Hawaiian structures, artifacts, and landmarks.

Policy 2. Identify, and to the extent possible, preserve and restore buildings, sites, and areas of social, cultural, historic, architectural, and archaeological significance.

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

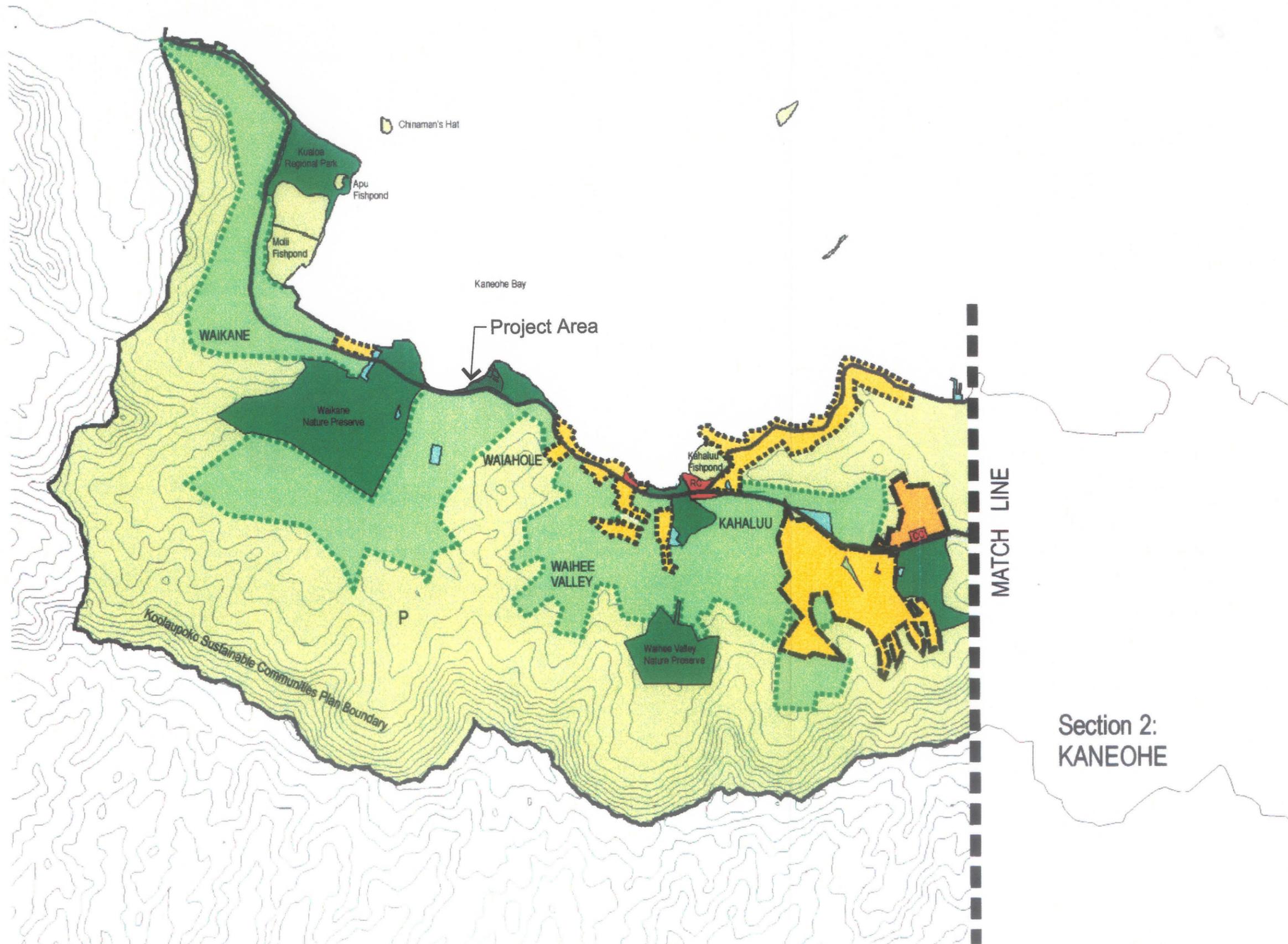
Policy 6. Provide convenient access to all beaches and inland recreation areas.

3. Ko'olaupoko *Sustainable* Communities Plan

The development plans are required to be consistent with and implement the objectives and policies set forth in the General Plan. The plans were prepared for eight geographic regions of the island. Sustainable Communities Plan such as the Koolaupoko *Sustainable* Communities Plan succeeded the development plans in six of the geographic regions. In concert with the General Plan the development plans and sustainable communities plans prescribe policies for land use and budgetary actions in the City and County of Honolulu.

The Ko'olaupoko *Sustainable* Communities Plan places Waiāhole Beach Park within the Agriculture/Open Space/Preservation Boundary (See Figure 7). In these areas, particularly since the park is along the shoreline, the multi-faceted boundary would help to promote small scale agricultural uses, preserve scenic views and the scenic beauty of the ocean, bays, and beaches, and direct residential growth to other parts of the plan region on O'ahu.

Applicable Plan policies and guidelines guiding the development of Waiāhole Beach Park are listed below.



LEGEND

- P Open Space/Preservation Areas
- Agricultural Areas
- Major Parks, Golf Courses, and Cemeteries, and Nature Preserves
- Medium Density Residential
- Low Density Residential
- Industrial
- Institutional
- Military
- CC Community Commercial Centers
- RC Rural Commercial Centers
- nc Neighborhood Commercial Centers
- TC Regional Town Centers
- Urban Community Boundary
- Rural Community Boundary
- Agriculture/Open Space/Preservation Boundary
- Freeways, Highways, and Major Roads
- High School (State)
- Intermediate School (State)
- Wastewater Treatment Plant

Source: City & County of Honolulu, Department of Planning and Permitting, Koolaupoko Sustainable Communities Plan, August 2000

Section 2:
KANEOHE

Figure 7
Sustainable Communities Plan
Koolaupoko - Land Use Map
Waiāhole Beach Park

City & County of Honolulu Waiāhole, Ko'olaupoko District, O'ahu
NORTH

LINEAL SCALE (FEET)
2000 1000 0 1000 2000 4000

Gerald Park
Urban Planner
September 2005

Shoreline

The shoreline provides residents and visitors with significant active and passive recreational value. Thus, public access, both mauka-makai and lateral, should be maintained and improved. In addition, Koolaupoko's shoreline areas offer spectacular scenery. As such, views from public roads to the shoreline should be maintained or created.

Guidelines

Maintain existing *makai* view channels along . . . Kamehameha Highway north of Kaneohe.

Create and maintain new *makai* view channels along Kamehameha Highway and Kahekili Highway north of Kaneohe through selective clearing of dense vegetation and the removal of structures. . .

Existing pedestrian rights-of-way to the shoreline should be improved by providing on-street or off-street parking nearby; . . .

Island Based Parks and Recreational Areas

General Policies

Maintain and enhance present island-based parks by utilizing land area that has not been fully developed for recreation use. Island based parks are part of the region's abundance of natural and scenic resources and contribute to the attractiveness of Koolaupoko to both residents and visitors.

Planning Principles

Construct park facilities in a manner that avoids adverse impacts on natural resources or processes in the coastal zone or any other environmentally sensitive area. In the design of recreation areas, incorporate natural features of the site and use landscape materials that are indigenous to the area in order to retain a sense of place.

Guidelines

Improve in a manner that preserves the area's natural scenic quality and provides educational and passive recreation opportunities.

Historic and Cultural Resources

General Policies

Preserve significant historic features from earlier periods.

Planning Principles

Implement in situ preservation and appropriate protection measures for sites that have high preservation value because of their good condition or unique features.

A “park” symbol for the proposed Waiāhole Beach Park is included on the Koolaupoko PIM (Public Infrastructure Map) as PIM symbol number 003. The PIM listing allows budgeting and expenditure of future Capital Improvement Program (CIP) funds for construction by the City as required by Section 4.8.1(c) of the Public Infrastructure Map Ordinance, which was adopted by the City Council as Ordinance 02-03 on January 30, 2002 (Department of Planning and Permitting Comment).

4. Land Use Ordinance

The City and County of Honolulu’s Land Use Ordinance (“LUO”) prescribes development standards and permissible uses within the agricultural zoning district. With the exception of two parcels zoned P-2 General Preservation, the beach park is zoned AG-2 General Agriculture (See Figure 9). As a public park, Waiāhole Beach Park meets the Land Use Ordinance definition of “public use”. Public uses and structures are permitted in the AG-2 and P-2 zoning districts (Land Use Ordinance).

A waiver from the LUO AG-2 general agricultural district development standards may be required if the proposed improvements exceed these standards (Department of Planning and Permitting Comment).

5. Shoreline Rules and Regulations

The entire park is within the County delineated Special Management Area (Figure 9) and a Special Management Area Use Permit will be required prior to construction of the improvements proposed in the Master Plan.

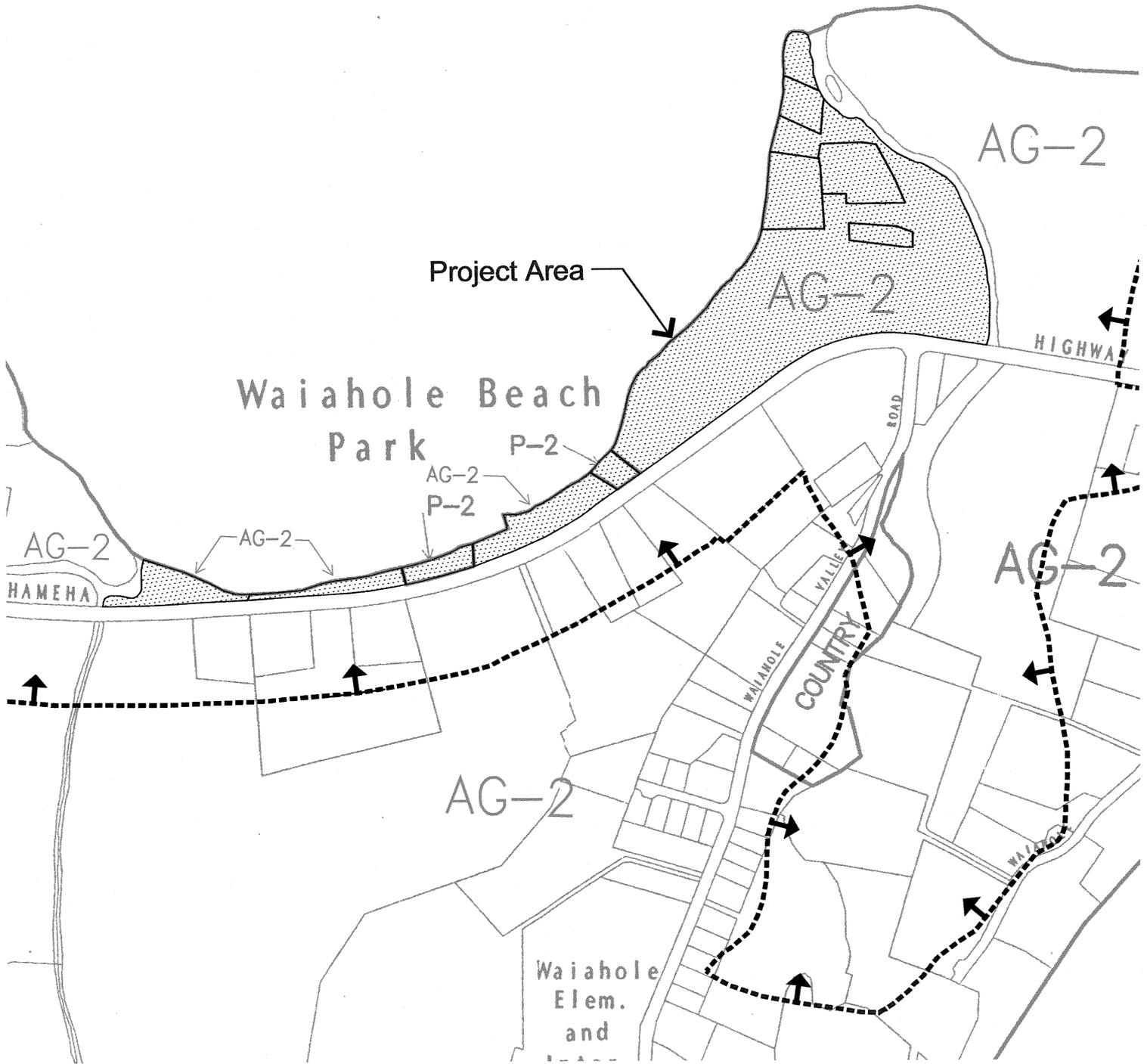
Proposed improvements may encroach into the shoreline setback. The shoreline will be surveyed prior to each improvement phase and a shoreline setback variance applied for if needed.

6. Coastal View Study

The Coastal View Study (Chu and Jones, 1987) places Waiāhole Beach Park in the Kahaluu Section of the Kane’ohe Bay Viewshed. The Kahaluu Section extends from Kaoio Point near Kualoa Beach Park on the north to Kahalu’u Fishpond on the south. Two view attributes are noted for Waiāhole and Waikāne. The authors write “Intermittent makai views from Kualoa Regional Park through the Waiāhole/Waikāne area. The natural vegetation and agricultural crops are the primary elements that characterize the viewing experience.” The second attribute is identified on a viewshed map indicating “significant stationary view” at Waiāhole Beach Park. In the subsequent 18 years since the study was published, vegetation clearing at Waiāhole Beach Park has opened up an almost continuous view of the ocean from Kamehameha Highway between Waiāhole and Waikāne Streams and enhanced stationary views in north, south, and east directions from Waiāhole Beach Park.

N. Wetland Area

The northern section of tax map key 4-8-001: 010 located to the immediate south of Waiāhole Stream is proposed for wetland enhancement. The approximately 14-acre area is bounded by Kane’ohe Bay on the east, Waiāhole Stream on the north, and a remnant ‘auwai and jeep trail on the south. The western boundary is generally located about 500



- Legend**
- AG-2 AGRICULTURE (GENERAL)
 - Country COUNTRY
 - P-2 PRESERVATION (GENERAL)
 - SPECIAL MANAGEMENT AREA

Figure 8
Zoning & Special Management Area
Waiāhole Beach Park

City & County of Honolulu Waiāhole, Ko'olaupoko District, O'ahu

NORTH

LINEAL SCALE (FEET)

250 125 0 125 250 500

Gerald Park
 Urban Planner
 September 2005

Source: City & County of Honolulu, Department of Planning & Permitting
 Zoning Map 20, Ord. 86-121, Oct. 22, 1986
 City & County of Honolulu Online GIS Database

lineal feet inland of and parallel with Kamehameha Highway. This latter area once comprised irrigated agricultural fields.

The Waiāhole Beach Park Master Plan depicts an existing wetland area near the mouth of the Waiāhole Stream and about half its length along its southern bank. The wetland generally corresponds to a wetland shown on the National Wetland Inventory Map and coded as E2F03N. AECOS (1995, 2000) surveyed this area and, based on the predominant vegetation type, categorized it as *hau* forest. They also noted that there is evidence of old drainage ditches or *'auwai* and it is possible that much of this wetland feature south of Waiāhole Stream is part of the former *'auwai* system that now terminates on the mauka side of Kamehameha Highway. Further investigation revealed that areas adjacent to Waiahole Stream and further inland also met the soils and hydrology criteria for wetlands. This area could be fed by a spring although no physical evidence of a spring has yet been discovered. For the time being, this area should be regarded as a wetland---one that may recover in wetter times (if spring-fed) or may disappear altogether without functional restoration of the man-made *'auwai*.

To the south of this existing wetland, a second area is identified as "New Wetland" on the Master Plan. This area at one time may have been a former wetland that no longer has a reliable supply of water (presently not jurisdictional wetlands). AECOS surveyed this area and categorized its vegetation type primarily as grasslands and *Syzygium* mixed forest. Grassland is mostly a merging of pargrass wetlands, pasture lands, and fallow agricultural fields that have been overgrown with grasses. The dominant species in most cases are California or paragrass and Hilo grass.

The *Syzygium* mixed forest is dominated by Java plum.

The area is currently undeveloped. Abandoned cars, boats, and white appliances such as washing machines, dryers, and refrigerators are dumped in isolated areas. Construction debris is common and piled into large mounds at several locations. Areas behind the shoreline are strewn with litter, bottles, cans, paper and plastic products, automobile tires, and other junk.

Two squatter camps are located in the *hau* forest near the shoreline. One camp is located near the mouth of Waiāhole Stream and the second is located about 300 feet to the south of the first camp.

One of the unique features of this property is the system of man-made ditches or *'auwai* used to bring water to former agricultural fields that were plentiful makai of Kamehameha Highway and adjoining Waiāhole Stream. All of the low-lying land here was once in taro and the ancient *'auwai* was still functional up to modern times supplying the fields with water from Waiāhole Stream. The *lo'i* cannot readily be seen through the present-day dense vegetation. This cover is comprised of grasslands, ruderal vegetation, and koa-haole forest.

The *'auwai* system south of the stream delivered stream water to a point just across (mauka of) the highway and could be restored. Water presently arriving at the highway is shunted back into Waiāhole Stream at the Highway bridge; but inspection of the *'auwai* shows some water is presently passing under the highway through a culvert pipe.

The ALISH map designates the area Unique Agricultural Land and Other Important Agricultural Land.

The project area is located in Flood Hazard Zone AE (FEMA, 1970). The base flood elevation is estimated at between 7 to 10 feet above mean sea level. The Waiāhole Stream Floodway does not extend makai of Kamehameha Highway.

With the exception of the General Preservation zoning (P-2) of two lots at Waiāhole Beach Park, the land use controls for the beach park are also applicable to the wetlands area.

Archaeological inventory survey of the area discovered three historic properties (Cultural Surveys Hawaii, 2005). One site is a structural foundation, which based on materials retrieved from within the feature, indicates that it was most likely used for habitation purposes. The platform may have been constructed prior to the arrival of Europeans and the various artifacts suggest that it was utilized throughout the late prehistoric and early historic periods.

A second site is a historic road that artifacts found between the curbstones and the construction style indicates that this site is from the historic period. This site appears to have been disturbed by the base yard that was located within the project area.

The third site is what remains of the old agricultural pond field system. Most of the surface features such as *lo'i* walls and trails have been obliterated but some features such as the berm and *auwai*, as well as much of the old agricultural surface remain.

The three features are located in the area identified as "New Wetlands" on the master plan.

O. Public Facilities and Services

1. Streets and Traffic

Kamehameha Highway, a two-lane undivided state highway, adjoins the western edge of the park. Its 24-foot wide paved surface lies within a 50-foot right-of-way where it passes the park. The highway is without curbs, gutters, and sidewalks. The posted speed limit is 35 mph. The makai side of the right-of-way has been designated for a bike path. The State Department of Transportation ("DOT") has jurisdiction over the highway.

The project site is located east of Kamehameha Highway. Fronting the site, Kamehameha Highway is part of State Route 83 and is an undivided State highway that provides the only roadway link along the windward side of O'ahu. The project is located just north of Waiāhole Stream and the intersection with Waiahole Valley Road.

The *Traffic Summary, Island of Oahu 2000* report published by the State Department of Transportation shows an average daily traffic (ADT) in 2000 of 10,897 vehicles per day (vpd) on Kamehameha Highway in the 6+ mile segment north of Waiahole Valley Road. Based on reported factors for peak hour traffic and directional distribution, the traffic volumes during the AM Peak Hour (morning commute) peak hour are 425 vehicles per hour in the peak direction and 285 vehicles per hour in the opposite direction. PM Peak Hour (afternoon commute) peak hour traffic volumes are 450 vehicles per hour and 370 vehicles per hour. The average daily traffic has remained nearly the same in recent years, as shown in Table 2-1.

Table 2-1
AVERAGE DAILY TRAFFIC
 Kamehameha Highway, Polimalina Road (Kaaawa) to Waiahole Valley Road

<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
10,089	9,289	10,933	10,807	10,897

Source: State of Hawaii, Department of Transportation, Highways Division

The Highways Division takes biannual traffic counts at the intersection of Kamehameha Highway and Waiahole Valley Road. Daily and peak hourly volumes on the north leg of the intersection from the latest count (August 2000) are shown in Table 2-2.

Table 2-2
STATE TRAFFIC COUNT DATA
 Kamehameha Highway North of Waiahole Valley Road (Station 30)

	<u>Southbound</u>	<u>Northbound</u>	<u>Total</u>
August 2000	6,462	6,291	12,753
AM Peak Hour (7:00-8:00 AM)	495	231	727
Midday (11:15 AM-12:15 PM)	380	450	830
Early Afternoon (2:00-3:00 PM)	484	458	942
PM Peak Hour (4:00-5:00 PM)	448	541	989

Source: State of Hawaii, Department of Transportation, Highways Division.

Public transportation is available by TheBus the municipal bus service. Three bus stops are spaced along the length of the park fronting Kamehameha Highway.

The Department of Transportation proposes to demolish the Waiahole Bridge and replace it with a new structure at the same location as the existing bridge (Department of Transportation, 2004). The bridge was built in 1922 and is considered functionally obsolete. The replacement bridge will be 66-feet long and 50-feet wide. It will provide two 12-foot wide travel lanes and two 11-foot shoulders with new bridge railings (Ibid). A temporary bridge will be erected somewhere to the east of the existing bridge. A timetable for construction has not been finalized.

2. Water

An 8-inch Board of Water Supply water line is located within Kamehameha Highway.

3. Wastewater

There is no municipal sewerage system serving the project area. Domestic wastewater is disposed of in individual wastewater systems.

4. Power and Communication

Hawaiian Electric Company, Hawaiian Telcom (formerly Verizon Hawaii Inc.), and Oceanic Cable power, telephone, and CATV systems respectively are strung on overhead distribution lines on the mauka side of Kamehameha Highway.

5. Parks

Waiāhole Beach Park is located within the geographical boundaries of the Kahaluu Neighborhood Board. The Department of Parks and Recreation inventory of parks and facilities (1997) lists several municipal parks in the region. In addition to Waiāhole Beach Park municipal parks include Kualoa Regional Park (153.41 acres), Kahalu'u Regional Park (46 acres including Kahaluu Community Park), Ahuimanu Community Park (4.0 acres), Laenani Neighborhood Park (1.37 acres), and Waihee Valley Nature Park (149.55 acres). A Master Plan has been prepared for Waikāne Valley Nature Park, which is proposed in Waikāne Valley, to the northeast of Waiāhole Beach Park.

Although Kane'ohē Bay and the Pacific Ocean form a natural boundary, there is a paucity of beach parks within the Kahalu'u Neighborhood Board area. With the exception of Kualoa Regional Park, which is an island wide facility, the only beach park in the area is the small, unimproved Waiāhole Beach Park. The Master Plan for Kahalu'u Regional Park includes coastal lands on Kane'ohē Bay, but these lands will remain essentially undisturbed because of its wetland resource value.

6. Protective Services

Fire protection originates from the Kahaluu Fire Station (Engine 37) on Waihee Road about 2.3 miles to the south. If required, the fire apparatus stationed at the Kaaawa or Kaneohe Fire Stations can be called for back up.

Police protection originates from the Kaneohe Police Station located in downtown Kaneohe.

SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS AND MEASURES TO MITIGATE ADVERSE EFFECTS

3

A. Assessment Process

The scope of the project was discussed with planners of the Department of Design and Construction. State and County agencies were contacted for information relative to their jurisdiction and expertise. Several technical studies including wetlands identification, archaeological inventory survey, cultural impact assessment, and an environmental site assessment were prepared in conjunction with development of the park. In addition, a wetland enhancement plan was drafted and an archaeological inventory survey performed for the area proposed for wetland mitigation. Time was spent in the field noting site conditions and conditions in the vicinity of the park. From the discussions and field investigations, existing conditions and features that could be affected by or affect the proposed improvements were identified. These influencing conditions include:

- The park is located in a flood hazard area (Zone AE);
- Archaeological features have been discovered on the property;
- There are no rare, threatened, or endangered flora on the premises;
- The site is free of geological and hydrological hazards;
- There are no hazardous materials on the premises;
- A marginal wetland on the property has been filled;
- Near shore ocean waters are primarily mud flats; and
- The mud flats harbor a low diversity of organisms.

Waiāhole Beach Park will be improved in four phases. The fourth phase would be implemented as the need for additional parking and secondary access to the multi-purpose field arises. Given the phasing schedule, certain construction activities will be repeated over time. For example, grading will be required to establish design elevations for the parking lot and driveway in Phase I. Additional grading will be required later to set design elevations for the passive recreation areas to the north of the parking lot during Phase 3. These repetitive construction activities would result in much the same recurring environmental impacts that can be mitigated by measures stipulated in this assessment. Major structural improvements are not proposed thus precluding environmental impacts associated with building construction.

Park improvements will be constructed generally from the south end to the north end. Construction impacts thus will not be confined to one location but will occur at different locations and different time periods based on the phasing schedule. Adjoining uses and people living near the park thus will not be constantly subjected to construction related activities and impacts.

B. Short-term Impacts

1. Air Quality

Construction will temporarily affect air quality and the acoustical environment. Site work activities will raise fugitive dust at construction sites that can settle in adjoining areas. Windy

conditions coupled with exposed soil could create severe dust problems. The general contractor will employ on-site dust control measures to prevent the work site and construction equipment and activities from becoming significant dust generators. If required, a dust control management plan will be prepared. The general contractor also will control dust from vehicles and from debris being hauled away for disposal. Control measures shall comply with Hawaii Administrative Rules, Title 11, Department of Health, Chapter 60.1, Air Pollution Control (and revisions thereto).

Most construction equipment and vehicles are diesel powered and emit exhaust emissions typically high in nitrogen dioxide and low in carbon monoxide. The Federal and State nitrogen dioxide standard ---100mg/m³ per annum---which is an annual standard, is not likely to be exceeded during construction. Carbon dioxide emissions should be less than that generated by automobile traffic on adjoining streets. Aldehyde odors from diesel equipment may be detected but should be dispersed by the prevailing winds.

2. Noise

Like fugitive dust, construction noise cannot be avoided. Agricultural uses and dwellings are situated across Kamehameha Highway from the park. Construction noise will be audible in these areas as construction work takes place nearby. Exposure to noise will vary by construction phase, the duration of each phase, and the type of equipment used during the different phases. Maximum sound levels in the range of 82-96 db(A) measured at 50 feet from the source would be generated by heavy machinery during the site work phase. After site work is completed, reductions in sound levels, frequency, and duration can be expected during actual building of the off-street parking areas, multi-purpose field, comfort station, and walkways.

Community Noise Control regulations establish maximum permissible sound levels for construction activities occurring within "acoustical" zoning districts. Based on the agriculture zoning of the area, the project is considered to be located in the Class C zoning district for noise control purposes. The maximum permissible daytime sound level in the district is 70 dBA all day (Hawaii Administrative Rules, Title 11, Department of Health, Chapter 46, Community Noise Control).

In general, construction activities cannot exceed the permissible noise levels for more than ten percent of the time within any twenty-minute period except by permit or variance. Any noise source that emits noise levels in excess of the maximum permissible sound levels cannot be operated without first obtaining a noise permit from the State Department of Health. Although the permit does not attenuate noise per se it regulates the hours during which excessive noise is allowed.

The general contractor will be responsible for obtaining and complying with conditions attached to the permit. Work will be scheduled between the hours of 8:00 AM to 3:30 PM Mondays through Fridays. The contractor will also ensure that construction equipment with motors is properly equipped with mufflers in good operating condition.

3. Erosion

Trenching, grading, and stockpiling of soil will be performed in accordance with erosion control standards of the City and County of Honolulu and approved grading plans and permits. Best Management Practices (BMPS) for erosion and drainage control during

construction will be prepared for review and approval by the Department of Planning and Permitting. Effective and appropriate methods for planning and maintaining pollution control measures during construction will be applied as recommended in the Best Management Practices Manual for Construction Sites in Honolulu (May 1999).

Construction work will exceed one acre. A NPDES General Permit Authorizing Discharges of Storm Water Associated with Construction Activity will be required from the State Department of Health.

The general contractor will perform general housekeeping duties at the site and surrounding areas to include collecting wind blown debris and keeping roads free of mud.

If contaminated soil is unearthed or hazardous substances uncovered, excavation will stop and the State Department of Health Hazard Evaluation and Emergency Response (HEER) office notified. Disposition of the contaminated soil and hazardous substances will follow established HEER protocols.

The project may need to comply with Section II (Storm Water Quality) of the “Rules relating to Storm Drainage Standards” (Department of Planning and Permitting Comment).

4. Archaeological Features

Lands comprising Waiāhole Beach Park have been significantly altered by prior construction of driveways, house sites, agricultural activities, and grubbing. Should excavation unearth subsurface archaeological sites, artifacts, or cultural deposits, work in the immediate area will cease and the proper authorities notified for disposition of the finds. If *iwi* are uncovered and appear to be less than 50 years old, the Honolulu Police Department will be notified. If the burials appear to be more than 50 years old, then the State Historic Preservation Officer will be notified. As a matter of protocol, both agencies will probably be notified for inspection and disposition of the finds.

The Waiāhole Beach Park Master Plan proposes to preserve in place several identified burial plots and a *pohaku o kane*. Preservation plans for both features will be drafted and submitted to the State Historic Preservation Division for review and approval.

5. Flora

The site will be grubbed and cleared of most vegetation except for selected trees that will be retained and incorporated into the overall park landscaping and layout. No threatened or endangered plants were observed growing on the premises thus no impact on endangered species is anticipated.

6. Traffic

Some construction work in the Kamehameha Highway right-of-way may be required. The contractor will implement measures to minimize inconvenience to motorists, pedestrians, and bicyclists during construction. The measures will be prescribed in a Traffic Management Plan to be submitted to the Department of Transportation, State of Hawaii, for review and approval. The measures would include but are not limited to:

- Keeping one lane of traffic open at all times;
- Posting warning signs on both sides of the work area to alert motorists of road work and to slow traffic speed;
- Positioning traffic cones or other directional devices in the roadway to guide vehicles around work areas;
- Posting flagmen to assist in traffic control;
- Limiting construction to between 8:00 AM and 3:30 PM, Monday through Friday.

The road section affected by construction will be restored to pre-construction condition or better. Open trenches will be covered with steel plates at the end of each working day and safety devices posted during night hours.

Construction vehicles hauling men and material will contribute to traffic on Kamehameha Highway. Material deliveries will be scheduled to minimize impacts on local traffic. Material off-loading should occur within the park grounds thus should not impede traffic flow.

7. Park Use

Sections of the beach park under construction will be closed temporarily to public use. For example, when the southern half of the park is closed for construction and for public safety reasons the northern half would be left open for recreation (albeit limited) pursuits. Conversely, the southern half should be open for public use when improvements are taking place in the northern half.

C. Long-term Impacts

1. Recreation

Development of the nearly 20-acre Waiāhole Beach Park will increase the number and acreage of improved beach parks in the District of Koʻolaupoko and in the City and County of Honolulu. Located on Kaneʻohe Bay, the beach park will create new land-based recreation opportunities and open up heretofore vacant and brush covered land and beach area for public use. This use would include shoreline recreation activities, picnicking, passive recreation activities and unimpeded access to and along the shoreline between Waiāhole and Waikāne Streams.

The multi-purpose field will provide a field for organized team sports and unstructured play. Usually such fields are integral elements of a community or district park but there are no such land-based recreation parks in Waiāhole and Waikāne. Residents of both communities have sought park use and a play field for this site since the early 1990s and its provision is seen as a positive outcome for the community.

2. Scenic and Open Space

The proposed improvements should not adversely affect coastal scenic and open space resources. The Coastal View Study Map for the Kahaluu Section of the Kaneohe Bay Viewshed did not identify any significant roadside views toward the ocean although stationary views from Waiāhole Beach Park was identified as significant. The clearing of trees, brush, and tall grasses have opened up stationary and highway views of the ocean

that was not previously visible. It is anticipated that the proposed improvements will further enhance these views as a public resource.

The Waiāhole Beach Park Master Plan supports the Ko'olaupoko *Sustainable* Communities Plan policies and guidelines for shoreline areas improving and enhancing existing views, creating new view corridors to the ocean, and providing public access to and along Kane'ohē Bay.

3. Coastal Ecosystems

The project is not proposed in an area of open waters, potential fisheries and fishing grounds, and wildlife habitats.

No structures or improvements (excepting wetland mitigation actions) are proposed along the shoreline thus there should be no adverse effects on beach processes.

Wetland mitigation is proposed on approximately 6 acres of City owned land to the south of Waiāhole Stream. A wetlands concept plan has been drafted but a formal plan has not been prepared for wetlands creation. Based on the Concept Plan, an approximately 3 to 4-acre area of *hau* forest adjoining Waiāhole Stream and Kane'ohē Bay would undergo wetland enhancement [Note: The *hau* forest is identified as existing wetlands on the Master Plan]. The *hau* forest has developed on the deposited soils of the modern stream delta at the mouth of Waiāhole Stream. Selective clearing of the *hau* and creation of several new channels could cause these lands to be reoccupied by both stream and tidal waters of Waiahole.

Selected areas would be excavated to a below grade depth (say -3 feet) to create a series of wetland ponds. Excavated material can be used to create earthen walls and walkways between the ponds. Piping would connect the ponds to allow for the exchange of water. Wetland vegetation would be planted to enhance the ponds and to create habitat for stream fauna and to attract water birds. In a previous study (Park, 1995) AECOS noted:

"Four species of endangered Hawaiian water birds could potentially be found on occasion in the site wetlands although these wetlands are so overgrown that they presently do not provide very suitable habitat. Stream habitats could be visited by the Hawaiian duck (*Anas wyvilliana*) although this species is rare on Oahu. Both the Hawaiian coot (*Fulica Americana alai*) and the Hawaiian moorhen (*Gallinula chloropus sandvicensis*) have been reported in wetlands north of Waikane. The endangered Hawaii stilt (*Himantopus mexicanus knudseni*) is fairly common around parts of Kaneohe Bay and might be expected to forage on the exposed mudflats off the mouths of Waiahole and Waikane Streams".

In addition to creating wildlife habitat, the project would help to restore the ecology and geo-hydrology of a major drainage system where it discharges into tidal waters. The action would also recreate a coastal wetland typical of coastal wetlands that once existed in abundance along the entire windward coast.

Water quality of Waiāhole Stream and Kane'ohē Bay should not be adversely affected. Measures will be taken to prevent runoff from entering both water bodies during construction. In the long-term, wetland vegetation and the wetlands would function to remove sediment and other impurities in the water before returning it to the stream or ocean.

The City acquired this property in 1995 to preserve and protect the coastal views from the highway, maintain existing open space, and enhance Oahu's coastal resources for permanent public use and enjoyment. Wetland enhancement would go far in achieving these objectives and special management area objectives of protecting valuable coastal ecosystems and restoring the quality of coastal scenic and open space resources.

4. Coastal Hazards

Waiāhole Beach Park is not a designated coastal high hazard area and subject to coastal velocity waves, but the Flood Insurance Rate Map for the areas indicates that the park is subject to flooding from the 100-year storm. The base flood height across the park ranges from 7 feet at Kaneohe Bay to 12 feet at Kamehameha Highway. Ground elevation across the park ranges from sea level at Kaneohe Bay to 7 feet at Kamehameha Highway. Based on ground elevation and flood elevation, the 100-year flood could inundate the park with up to 5 feet of water in the southern area and 3 feet in the northern area.

5. Land Use and Agriculture

Although State and County land use controls designate most of the park agriculture, developing the park for recreational use would not compromise the agriculture designations. Open **area** recreation facilities are a permitted use on land designated Agricultural by the State Land Use Commission and public uses and structures are permitted on land zoned AG-2 by the City and County of Honolulu.

6. Drainage

Before portions of the park was cleared of overgrown vegetation and trees, the coastal lands served as a collection area for runoff from mauka areas. There are no plans to significantly alter this function. To be developed principally for recreational use, the multi-purpose field can serve a secondary function as a detention area. The primary means for draining this area will be new 18" pipes installed under the multi-purpose field. The drain lines will convey runoff from existing drain outlets under Kamehameha Highway for discharge at locations makai of the field and near Waiāhole Stream.

Drainage improvements are not proposed in the northern section of the park. Existing earthen drainages in this area will not be disturbed. The drainages will have to be properly maintained and periodically cleared of debris to carry and discharge runoff from areas mauka of the beach park and the beach park into Kaneohe Bay.

7. Social Considerations

The development of Waiāhole Beach Park is intended to benefit the public. There is, however, a social cost to two families residing in the area where wetland mitigation is proposed. The families will have to relocate and find living accommodations elsewhere.

The Office of Hawaiian Affairs commented that they observed individuals and families living in their vehicles in the area and wondered about the justice in removing them without relocation options. The following response was provided to OHA. The City conducted a comprehensive interview of people residing at Waiāhole Beach Park and adjoining lands to the north and south of the beach park. The interviews helped to determine the status of the residents and their eligibility for relocation assistance.

The City has provided the relocation assistance it determined it was responsible by law to provide. Any individuals or families you observed living in their vehicles in the area should not be residing in the park. Because these individuals and families must have come later (after the survey following City land acquisition) they are deemed ineligible for relocation assistance.

8. Operations

In general, weekday uses are expected to generate less activity than weekends. Weekend use is expected to intensify especially for field sports. This would be no different from weekend use of parks in other communities where organized youth activities are the prevailing outdoors sports activities in most parks. Similarly, the picnic areas and shoreline are expected to be most used on weekends for ocean activities and gatherings.

The sound of laughter and talking will be audible in adjoining areas when the park is open. These impacts are unavoidable as they are to be expected from users enjoying a desired and needed recreation facility.

The multi-purpose field will provide the adjoining Waiāhole and Waikāne communities an open field for team field sports and other open area type recreation activities. Currently there is no field in either community for organized team recreation such as soccer, youth baseball, or rugby as some community residents have suggested.

The Department of Parks and Recreation, City and County of Honolulu, will have administrative and maintenance responsibilities for the park. Operating hours have not yet been determined but will be similar to other recreation facilities and parks operated by the Department of Parks and Recreation.

Officers of the Honolulu Police Department would have the primary responsibility of routinely patrolling the park and removing violators of park rules and city ordinances.

9. Public Facilities

a. Circulation

Recent estimates of average daily traffic from the State Highways Division indicate no growth in highway volumes in the area. Some growth, however, could occur over time. The project driveway connections to the highway have been evaluated for an estimated ten percent increase in highway traffic.

Traffic generated by the proposed project has been estimated from the number of parking stalls. Traffic estimates were made for the first phase of development with only two connections to the highway. The highest traffic generated in the morning is expected to occur when the open market is held. Total peak hour volume is estimated to be 150% of the number of parking stalls, with a distribution of 50% entering and 50% exiting. Peak traffic generated in the afternoon is estimate to be 90% of the number of stalls, with 50% entering and 50% exiting. Table 3-1 summarizes the project traffic generation.

Table 3-1

PROJECT TRAFFIC GENERATION

	<u>Trip generation factor, %</u>		<u>AM Peak Hour</u>		<u>PM Peak Hour</u>			
	<u>AM Pk. Hr.</u>	<u>PM Pk Hr.</u>	<u>enter</u>	<u>exit</u>	<u>enter</u>	<u>exit</u>		
North Driveway 20 parking stalls	1.50	50%	0.90	50%	15	15	9	9
Middle Driveway 120 parking stalls	1.50	50%	0.90	50%	90	90	54	54

The project traffic includes new traffic as well as traffic that may already be on the highway. Of the trips in and out of the site, 60% is estimated to be new traffic. The project traffic would arrive from and depart to both the north and south. Estimated distribution is 50% in each direction.

The project traffic estimates were combined with the future baseline traffic projections. Future project traffic assignments are shown in Figure 9. Each driveway connection was analyzed as an unsignalized intersection and results are shown in Table 3-2.

Table 3-2

FUTURE WITH PROJECT TRAFFIC INTERSECTION CONDITIONS

	<u>AM Peak Hour</u>		<u>PM Peak Hour</u>	
	<u>Delay*</u>	<u>LOS</u>	<u>Delay</u>	<u>LOS</u>
North Driveway				
Southbound left turn	8.8	A	9.0	A
Westbound share lane (project road)	17.9	C	19.6	C
Middle Driveway				
Southbound left turn	9.1	A	9.3	A
Westbound shared lane (project road)	40.3	E	31.1	D
Middle Driveway (with median lane on highway)				
Southbound left turn	9.1	A	9.3	A
Westbound shared lane (project road)	21.9	C	19.2	C

* average delay per vehicle, in seconds

The analyses indicate acceptable delays (LOS C or better) at the north driveway (Parking Lot "B") during future peak hours. AT the middle driveway, traffic leaving the site may experience long (LOS D) and very long (LOS E) delays during future peak hours. If a median lane is provided on the highway for left turns, the delays for traffic leaving the site would be reduced to acceptable LOS C levels. In any case, only minimal delays on the highway would be caused by southbound vehicles waiting to turn left into the project roadway(s) against the oncoming northbound traffic in either the AM or PM peak hours.

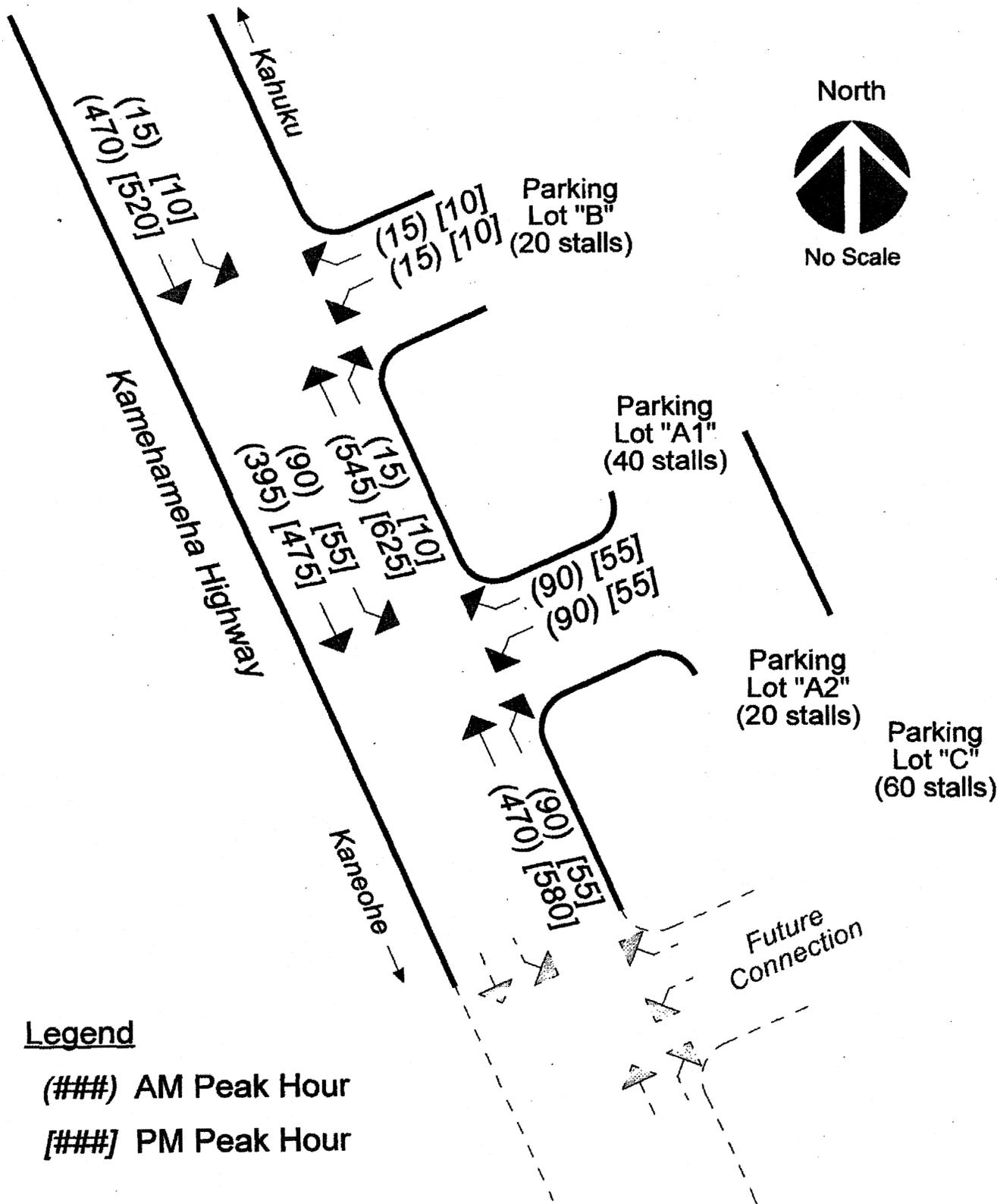


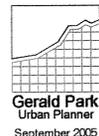
Figure 9
 Highway Traffic with Project
Waiāhole Beach Park

City & County of Honolulu
 NORTH

Waiāhole, Ko'olaupoko District, O'ahu



Not to Scale



The two-lane Kamehameha Highway fronting the site will continue to be adequate as indicated by the highway levels of service shown in Table 3-2.

The proposed project is not expected to have a significant impact to traffic conditions. The analyses have shown that there would be only minimal delays to traffic on the highway due to traffic waiting to turn in to the site driveways. Traffic leaving the site's north driveway would have acceptable delays in finding a gap in highway traffic, with peak hour conditions being described as Level of Service C. At the middle driveway, however, longer delays can be expected (Level of Service D and Level of Service E) as turning volume would be higher. The provision of a median lane so that left turns can be made in two steps (first across the northbound lane, then merging into the southbound lane) will decrease delay and improve conditions to Level of Service C.

The Department of Transportation pointed out that the traffic counts used in the traffic study were taken in the year 2000 and an updated study should be prepared. The Department of Design and Construction will prepare an updated traffic study with newer traffic count figures when the beach park improvements come closer to construction.

Although "the proposed project is not expected to have a significant impact to traffic conditions" (Ng, 2002), city park planners are concerned that the posted speed limit (35 mph) is quite high where Kamehameha Highway passes Waiahole Beach Park (Note: the park fronts on approximately 3,300 LF of highway). The existing speed limit is acceptable (in the absence of park improvements) but a lowering of the speed limit should be considered to promote highway safety for the public. It is anticipated that people will drive, ride the bus, and walk or bike (primarily residents living nearby) to the park. A mix of transportation modes in combination with having more people in the area, highway traffic, turning movement into/from the parking areas, and the existing speed limit could have the effect of creating unsafe conditions along the highway. This is not a desired outcome for park development. ***If the City considers a proposal to lower the speed limit, then the appropriate documents justifying a lowering of the speed limit will be submitted to the Department of Transportation for consideration (Response to Department of Transportation Comment).***

The master plan proposes several improvements to promote public safety. Entrances to the parking areas are located away from bends in the road to provide adequate sight distance in both directions for departing vehicles. As the need arises for additional off-street parking, a parking area is proposed for the makai side of the open field. Separate left-turn lanes are recommended at the parking area entrances as a means to minimize delays for traffic on the highway. A lowering of the speed limit would neither detract from the park experience nor deter accidents; it is, however, an *akamai* measure that should help to minimize the occurrence of traffic related accidents.

b. Water

Water is available and adequate to serve the domestic needs of park users (primarily comfort station use) and irrigation requirements.

c. Wastewater

In the absence of a municipal sewer system, wastewater from the comfort station will be disposed on-site. The recommended wastewater treatment disposal alternative is septic tanks and disposal fields. Chapter 62, Wastewater Systems, Hawaii Administrative Rules, Department of Health allows individual wastewater systems such as septic tanks and disposal fields in remote areas and areas of low density. As a regulatory mechanism, Chapter 62 has as its purpose(s) to insure that the disposal of wastewater from individual wastewater systems does not contaminate or pollute any drinking water or potential drinking water supply or the waters of any beaches, shores, or ponds and does not become a hazard to public health, safety and welfare.

Individual wastewater disposal systems will not be approved unless the system complies with strict engineering and design standards governing flow rates, maintenance and operation, site evaluation, percolation tests, spacing, and specific standards for septic tanks and soil absorption systems (Per Chapter 62, Hawaii Administrative Rules). In lieu of a regional wastewater treatment works, this type of system is the only permitted wastewater treatment and disposal alternative. The wastewater system will be designed, installed, operated, and maintained pursuant to Chapter 62, Hawaii Administrative Rules. It is anticipated that application of and adherence to these rules should preclude detrimental impacts on water quality and public health. Because of the concern of wastewater movement underground, the wastewater disposal fields will be located more than 50 feet from the ocean (the minimum standard) at a location to be determined during the design stage. The actual location and size of the disposal fields will be determined following percolation tests to be conducted in conjunction with design development of the park.

A. No Action

A “No Action” alternative would preclude the occurrence of all impacts, short and long term, beneficial and adverse described in this Assessment. The No Action alternative would forego the construction of a public recreation facility and recreation opportunities as planned in the Waiāhole Beach Park Master Plan.

B. Alternative Site Plan

The Waiāhole Beach Park Master Plan has been revised several times. An earlier site plan proposed a parking area extending into the park on the north side of the multi-purpose field with an elongated cul-de-sac. This scheme was proposed to provide ready access and parking to the multi-purpose field and areas makai of the field but it had the undesirable effect of reducing the land area available for park use. Eliminating this parking area frees up land for recreational uses but it also reduces the number of off-street parking stalls. Rather than not providing additional parking, the master plan provides for a future parking area to be constructed as the need arises. The trade-off is that scarce park land will have to be committed to this endeavor.

The current master plan provides more accessible walkways throughout the park and along the shoreline. Initially accessible walkways were limited primarily to the middle of the park but have since been proposed to access the picnic area on the makai side of the multi-purpose field.

For safety reasons and to promote vehicle sight distance, the vehicle entrance to the parking lot was moved further north. At this location, drivers exiting the park should have better sight distance of traffic in both directions.

The Waiahole-Waikane Community Association suggested that a play apparatus for children and a boat-launching ramp be built at the park. These facilities are excluded from the master plan. The Master Plan for Waiahole Beach Park is not a static document fixed in place. The plan can be amended to add alternative recreation facilities depending on community recreation needs.

AGENCIES AND ORGANIZATIONS CONSULTED IN THE ASSESSMENT PROCESS

5

*The Draft Environmental Assessment for the Waiahole Beach Park Master Plan was published in the Office of Environmental Quality Control Environmental Notice of December 23, 2005 and January 8, 2006. Publication initiated a 30-day public review period ending on January 23, 2006. The Draft Environmental Assessment was mailed or delivered to the agencies and organizations identified below. An asterisk * identifies agencies and organizations that submitted written comments during the review period. All comment letters and responses are found in Appendix B.*

United States of America

U.S. Army Corps of Engineers
Regulatory Branch
Civil Works Technical Branch
U.S. Fish and Wildlife Service

City and County of Honolulu

*Board of Water Supply
*Department of Planning and Permitting
*Department of Parks and Recreation
*Police Department
*Fire Department

State of Hawaii

Department of Land and Natural Resources
*Historic Preservation Division
Department of Health
*Environmental Planning Office
Hazard Evaluation and Emergency Response Office
*Office of Environmental Quality Control
Department of Transportation
*Highways Division
***Disability and Communications Access Board**
***Office of Hawaiian Affairs**
Office of Planning

Other

Hawaiian Electric Company
***Hawaiian Telcom**
*Councilmember Donovan Dela Cruz
Senator Clayton Hee, 23rd Senatorial District
Representative Colleen Meyer, 47th Representative District
Koolauloa Neighborhood Board No. 28
Kahaluu Neighborhood Board No. 29
Kaneohe Neighborhood Board No. 30
*Waiahole-Waikane Community Association
***Waiahole Landowners Association**
Kaneohe Public Library (Placement)
***Rose Batalona**
***John Wilkinson**

Permits and approvals required for the project and approving authorities are listed below. Additional permits and approvals may be required pending final construction plans.

City and County of Honolulu

Honolulu City Council

Special Management Area Permit

Department of Planning and Permitting

Shoreline Setback Variance

Grubbing, Grading, and Stockpiling Permit

Building Permit for Building, Electrical, Plumbing, Sidewalk/Driveway and Demolition Work

Permit to Excavate Public Right-of-Way

Board of Water Supply

Water and Water System Requirements for Developments

State of Hawaii

Department of Health

Variance from Pollution Controls

NPDES General Permits

Discharge of Hydrotesting Water

Water Quality Certification

Department of Transportation

Permit to Perform Work within State Highway Right-of-Way

United States of America

U.S. Army Corps of Engineers

Department of the Army Permit (Nationwide)

Chapter 200 (Environmental Impact Statement Rules) of Title 11, Administrative Rules of the State Department of Health, establishes criteria for determining whether an action may have significant effects on the environment (§11-200-12). The relationship of the proposed project to these criteria is discussed below.

1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;

Several archaeological features and a burial site discovered during field surveys will be preserved. The Department of Design and Construction will prepare preservation plans for review and approval by the State Historic Preservation Division.

Three archaeological features located in the area to the south of Waiāhole Stream are outside of the area proposed for wetland enhancement. Creation of additional wetlands in the area labeled "New Wetlands" on the Waiāhole Beach Park Master Plan will require archaeological mitigation for the three sites.

2) Curtails the range of beneficial uses of the environment;

The project will not curtail the range of beneficial uses of the environment. Park use for this coastal area has been a sought after city and community goal since the early 1990s. It is anticipated that the Waiāhole-Waikāne community would benefit from the introduction of a recreation area and facilities that are not presently available in either community.

3) Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in chapter 344, Hawaii Revised Statutes, and any revisions thereof and amendments thereto, court decisions or executive orders;

The project does not conflict with long-term environmental policies, goals, and guidelines of the State of Hawaii.

4) Substantially affects the economic or social welfare of the community or State;

The project will not substantially affect the economic or social welfare of the State.

5) Substantially affects public health;

Public health should not be adversely affected by the proposed project.

6) Involves substantial secondary impacts, such as population changes or effects on public facilities;

The proposed project will not initiate population changes in the area.

7) Involves a substantial degradation of environmental quality;

Environmental quality should not be substantially degraded as a result of the project.

8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;

The project is not the precursor for a larger action. It is, however, part of on-going capital improvement programs to develop new parks and recreation opportunities for residents of and visitors to the City and County of Honolulu.

9) Substantially affects a rare, threatened or endangered species, or its habitat;

Field investigations reveal that there is no rare, threatened or endangered flora on the premises. In addition, there are no rare or endangered terrestrial, stream, and marine fauna or habitat within the project limits.

In the future and with development of coastal wetland ponds, it is anticipated that Hawaiian and migratory waterbirds might establish habitat in the area.

10) Detrimentially affects air or water quality or ambient noise levels;

Ambient air quality will be affected during construction by fugitive dust and combustion emissions but can be controlled by measures stipulated in this Assessment. Construction noise will be pronounced during site work but should diminish once the multi-purpose field is graded and parking area completed. All construction activities will comply with air quality and noise pollution regulations of the State Department of Health.

11) Affects an environmentally sensitive area such as a flood plain, tsunami zone, erosion prone area, geologically hazardous land, estuary, fresh water, or coastal waters;

Park development should not adversely affect environmentally sensitive areas identified above. The park is located in a flood hazard area but would be affected more by runoff than contributing to flooding in the immediate area. The open space areas will serve a drainage function by detaining runoff and allowing percolation into the ground.

Enhancing an existing off-site wetland area will mitigate the inadvertent filling of a marginal wetland on the park grounds. Wetland enhancement is viewed as a positive environmental impact with potential significant consequences for creating suitable habitat for endangered native water birds.

12) Substantially affects scenic vistas and view planes identified in county or state plans or studies; or

The low-density improvements will not significantly affect scenic vistas identified in county plans for the area. Located on the makai side of Kamehameha Highway, the proposed improvements will not obstruct public views of the shoreline from the roadway because the improvements are at or below existing street grade. The proposed improvements will not interfere with views towards the mountains.

Park development will clear trees and vegetation thus expanding scenic vistas and views to Kane'ohē Bay between Waiāhole and Waikāne Streams, or the length of the beach park. This is considered a substantial positive impact considering that not long ago views of the bay were severely restricted by vegetation.

13) Requires substantial energy consumption.

Substantial energy consumption is not required. Lighting the multi-purpose field and the parking areas are not proposed. The comfort station may be lighted for security purposes.

REFERENCES

- AECOS Inc. June 1995. *A Natural Resources Inventory of Coastal Parcels at Waiahole and Waikane on Windward Oahu*. Prepared for Gerald Park Urban Planner. AECOS No. 824A.
- AECOS Inc. 2000. *Wetland Resources Inventory for City and County of Honolulu Coastal Parcels at Waiahole and Waikane on Windward O'ahu*. Prepared for Gerald Park Urban Planner, Honolulu. AECOS No. 824B.
- AECOS Inc. 2001. *Wetland Resources Inventory for City and County of Honolulu Coastal Parcel at Waiahole, Oahu (draft)*. Prepared for Gerald Park Urban Planner by AECOS, Inc. and Botanical Consultants, Inc. Honolulu. AECOS No. 824C.
- AECOS, Inc. 2002. *Concept Plan Waiahole Stream Wetlands Creation and Enhancement*. Prepared for Department of Design and Construction, City and County of Honolulu.
- Chu, Michael S. and Robert B. Jones. 1987. *Coastal View Study*. Prepared for City and County of Honolulu, Department of Land Utilization.
- Cultural Surveys Hawaii. June(?) 1995. *An Archaeological Assessment of Two Parcels at Waiahole and Waikane Ahupua'a, Ko'olaupoko District, O'ahu (TMK: 4-8-01 and 4-8-03)*. Prepared for Gerald Park Urban Planner.
- Cultural Surveys Hawaii. November 2002. *An Archaeological Inventory Survey of an Approximately 21-acre Parcel at Coastal Wai'ahole, Ahupua'a Ko'olaupoko District, Oahu (TMK 4-8-02: 1,2,4-12)*. Prepared for Department of Design and Construction, City and County of Honolulu.
- Cultural Surveys Hawaii. May 2002. *A Hawaiian Traditional and Cultural Practices Assessment for the proposed Wai'ahole Beach Park, Ahupua'a Ko'olaupoko District, Oahu (TMK 4-8-02: 1,2,4-12)*. Prepared for Department of Design and Construction, City and County of Honolulu.
- Cultural Surveys Hawaii. May 2005. *Archaeological Inventory Survey of an Approximately 9-Acre Parcel in Coastal Wai'ahole Ahupua'a, Ko'olaupoko District, Island of O'ahu*. Prepared for The City and County of Honolulu.
- Department of Geography, University of Hawaii. 1983. *Atlas of Hawaii Second Edition*. University of Hawaii Press. Honolulu.
- Department of Parks and Recreation, City and County of Honolulu. April 1997. *Index of O'ahu Parks and Facilities*.
- Department of Planning and Permitting, City and County of Honolulu. October 1986. *Land Use Ordinance. Ordinance No. 86-96 As Amended*.
- Department of Planning and Permitting, City and County of Honolulu. August 2000. *Koolaupoko Sustainable Communities Plan*.

Department of Planning and Permitting, City and County of Honolulu. October 2002. General Plan. As amended by Resolution 02-205, CD1.

Federal Emergency Management Agency. November 2000. *Flood Insurance Rate Map. Community Panel No. 15003C0165E and 15003C0255E.*

Mink, John F. and L. Stephen Lau. February 1990 Revised. *Aquifer Identification and Classification for Oah'u: Groundwater Protection Strategy for Hawai'i.* Water Resources Research Center, University of Hawaii at Manoa.

Ng, Julian Incorporated. Waiahole Beach Park Traffic Assessment. September 2002.

Park Gerald Urban Planner. June 1995. *Acquisition of Scenic Sites along Kamehameha Highway at Waiahole and Waikane Valleys, Koolaupoko District, Oahu, Hawaii. Environmental Assessment and Property Management Plan.* Prepared for Department of Transportation Services, City and County of Honolulu.

Park, Gerald Urban Planner. 2000. 2001. 2002. 2003. 2005. *Field Observations.*

State of Hawaii, Department of Agriculture. 1977. *Agricultural Lands of Importance to the State of Hawaii (ALISH Maps).*

State of Hawaii, Department of Transportation, Highways Division. January 2004. *Final Environmental Assessment for Kamehameha Highway Waiahole Bridge Replacement District of Koolaupoko, Island of Oahu Federal Aid Project No. BR-083-1(37).* Prepared Pursuant to Chapter 343, Hawaii Revised Statutes (HRS).

The Environmental Company. January 2003. *Phase I Environmental Site Assessment and Limited Soil Sampling Waiahole Beach Park.* Prepared for Gerald Park Urban Planner.

U.S. Department of Agriculture, Soil Conservation Service. August 1972. *Soil Survey Report for Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii.* In Cooperation with the University of Hawaii Agricultural Experiment Station.

APPENDIX A

COMMENT LETTERS AND RESPONSES ON THE DRAFT ENVIRONMENTAL ASSESSMENT

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU
801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 - AREA CODE (808) 529-3111
<http://www.honolulu.gov>
<http://www.honolulupd.org>
www.honolulu.gov



MUFI HANNEMANN
MAYOR

BOISSE P. CORREA
CHIEF

GLEN R. KAJIYAMA
PAUL D. PUTZLU
DEPUTY CHIEFS

OUR REFERENCE BS-KP

December 12, 2005

received
12.14.05

Mr. Gerald Park
Gerald Park Urban Planner
1221 Kapiolani Boulevard, Suite 211
Honolulu, Hawaii 96814

Dear Mr. Park:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the Waiahole Beach Park project in Ko'olaupoko, O'ahu.

This project should have no significant impact on the facilities or operations of the Honolulu Police Department. Additionally, since the park will be closed at night, which should help to deter possible criminal activity, it is important that the restrooms also be locked during the evening hours.

If there are any questions, please call Major Susan Dowsett of District 4 at 247-2166 or Mr. Brandon Stone of the Executive Bureau at 529-3644.

Sincerely,

BOISSE P. CORREA
Chief of Police

By *Karl Godsey*
KARL GODSEY
Assistant Chief of Police
Support Services Bureau

Striving and Protecting with Aloha

DEPARTMENT OF PARKS & RECREATION
CITY AND COUNTY OF HONOLULU
1000 Ulukouia Street, Suite 309, Kapiolani, Hawaii 96707
Phone: (808) 692-5561 - Fax: (808) 692-5131
Website: www.honolulu.gov



MUFI HANNEMANN
MAYOR

LESTER K. C. CHANG
DIRECTOR
DANAL TAKAHARADIAS
DEPUTY DIRECTOR

December 20, 2005

received
12.21.05

Mr. Gerald Park
Urban Planner
1221 Kapiolani Boulevard
Suite 211
Honolulu, Hawaii 96814

Dear Mr. Park:

Thank you for the opportunity to review the Environmental Assessment for Waiahole Beach Park, TMK: 4-8-002: 01, 02, 04, 05, 06, 07, 09, 10, 11, 12 and 4-8-001: por. 10.

The Department of Parks and Recreation has no comment to submit regarding this report. We look forward to the development of this proposed park.

Should you need further assistance, please contact Mr. Wilfred Ho, Windward Oahu Manager, at 233-7300.

Sincerely,

Lester K.C. Chang
LESTER K.C. CHANG
Director

LKCC:kh
(131061)

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
3375 KOA'APAKA STREET, SUITE H425 • HONOLULU, HAWAII 96819-1869
TELEPHONE: (808) 831-7761 • FAX: (808) 831-7750 • INTERNET: www.honolulufire.org



ATTILIO K. LEONARDI
FIRE CHIEF

JOHN CLARK
DEPUTY FIRE CHIEF



MUFI HANNEMANN
MAYOR

received
12-21-05

December 19, 2005

Gerald Park Urban Planner
1221 Kapiolani Blvd., Suite 211
Honolulu, Hawaii 96814

Attention: Gerald Park

Subject: Waiahole Beach Park Master Plan, Draft Environmental Assessment

Dear Sir:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the Waiahole Beach Park Master Plan. Hawaiian Telcom has existing aerial facilities along Kamehameha Highway, in front of the beach park. If payphones are desired at the restroom, then we will need to be contacted for the appropriate service point. We do not foresee any other impact at this time.

Should you have any questions, please call Garret Hayashi at 840-1438.

Sincerely,


Jill Z. Lee

Section Manager - OSP Engineering

cc: File (Kahaluu)

December 27, 2005

Mr. Gerald Park
Gerald Park Urban Planner
1221 Kapiolani Boulevard, Suite 211
Honolulu, Hawaii 96814

Dear Mr. Park:

Subject: Draft Environmental Assessment
Waiahole Beach Park
Ko'olaupoko, Oahu, Hawaii
Tax Map Keys: 4-8-001: Portion 010
4-8-002: 001, 002, 004, 005, 006, 007, 009, 010, 011, and 012

We received your letter dated November 30, 2005, requesting our comments on the above-mentioned subject.

The proposed project will not adversely impact services provided by the Honolulu Fire Department.

Should you have any questions, please call Battalion Chief Lloyd Rogers of our Fire Prevention Bureau at 831-7778.

Sincerely,


ATTILIO K. LEONARDI
Fire Chief

AKL/SK:bh

cc: Mr. Terry Hildebrand, Department of Design and Construction

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843



January 11, 2006

- MUFI HANNEMANN, Mayor
- RANDALL Y. S. CHUNG, Chairman
- HERBERT S. K. KAOPUA, SR.
- SAMUEL T. HATA
- ALLY J. PARK
- RODNEY K. HARAGA, Ex-Officio
- LAVERNE T. HIGA, Ex-Officio
- CLIFFORD P. LUM, Manager and Chief Engineer
- DONNA FAY K. KIYOSAKI, Deputy Manager and Chief Engineer

Mr. Gerald Park, Urban Planner
1221 Kapiolani Boulevard, Suite 211
Honolulu, Hawaii 96814

Dear Mr. Park:

Subject: Your Letter of November 30, 2005 on the Environmental Assessment for Waiahole Beach Park, TMK: 4-8-2-1,2,4,5,6,7,9,10,12, and 4-8-1-10

Thank you for the opportunity to comment on the subject document.

The existing water system is presently adequate to accommodate the domestic requirements of the proposed beach park. However, please be advised that this information is based upon current data and, therefore, the Board of Water Supply reserves the right to change any position or information stated herein up until the final approval of the building permit. The final decision on the availability of water will be confirmed when the building permit is approved.

When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission, and daily storage.

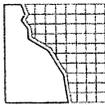
The Department of Design and Construction should investigate the availability and use of non-potable water for irrigation of the park. If non-potable water is not available or its use is not feasible, a report of the investigation should be submitted to us before we will consider the use of potable water for irrigation.

The landscaping and irrigation plans should incorporate drought tolerant plants and a water efficient irrigation system with moisture sensors, regulating controls, and possibly drip irrigation.

If you have any questions, please contact Robert Chun at 748-5443.

Very truly yours,

KEITH S. SHIDA
Principal Executive
Customer Care Division



June 21, 2006

GERALD PARK
Urban Planner

- Planning
- Land Use
- Research
- Environmental Studies

Subject: Waiahole Beach Park Master Plan
Waiahole-Waikane, Ko Olau-poko District, Oahu

1221 Kapiolani Blvd.
Suite 211
Honolulu, Hawaii
96814

- Telephone: (808) 596-7484
- Facsimile: (808) 596-7485
- e-mail: geraldpark@aol.com

Clifford S. Jamile
Manager and Chief Engineer
Board of Water Supply
630 South Beretania Street
Honolulu, Hawaii 96843

Thank you for reviewing the draft environmental assessment prepared for the subject project. We offer the following responses in the order your comments were presented.

As you suggested, the Department of Design and Construction will investigate the availability and use of non-potable water for irrigation of the park.

Your recommendation for using drought tolerant plants in the landscaping and a water efficient irrigation system will be incorporated into the design guidelines for the park.

We thank the Board of Water Supply for participating in the environmental review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: T. Hildebrand, DDC



January 17th, 2006

Terry Hildebrand
Department of Design and Construction
650 S. King Street
Honolulu, Hawaii 96813

Re: comments from the Waihole - Waikane Community Association regarding the Environmental Assessment dated Dec. 2002

Gentleman:

The Waihole-Waikane Community Association has reviewed the above E.A. and offers the following comments.

We disagree with the following improvements in your E.A.

1. Delete comfort stations. Based on our observation of existing comfort stations on the Windward coast, the Parks and Recreation Department, City & County of Honolulu, is unable to maintain existing facilities. Further, based on current illegal activities and vandalism the comfort stations will be detrimental to the Waihole Beach Park.
 2. Delete the parking stalls at all recommended areas. Again, based on illegal activities occurring in Waihole beach Park and the inability of the Parks Department and the Honolulu Police department to keep illegal activities from occurring, the parking stalls will encourage more illegal activities.
- For those who use Waihole Beach Park, we recommend that the barriers be moved back to allow diagonal parking.
- In addition, we recommend that park closure hours be kept from 10:00pm to 5:00am and signs posted at various locations.
 3. Delete Baseball Field- Sight is unsuitable because of swampy field conditions and ball field is available at Kahaluu Beach Park.

4. Community would like to provide input on landscaping of park. The general consensus is the restoration of the view plane, as on passes the Manatad turn going North on Kam Highway.

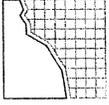
The community estimate that 50% of the cleaning has been completed. The remaining area up to the Manatad tenancy has yet to be cleaned. We recommend that monies be allocated and set aside for the completion of the remaining cleanup, we recommend that One (1) million dollars be allocated to cover remaining costs and to restore the view plane.

To summarize, the deletion in this recommendation will eliminate the 7.5 million price tag that you estimated. The community feels a need for a passive park as we have described.

If there are any question or concerns you may reach me at 239-1700.

Very Truly Yours,
David Y. Chinen
David Y. Chinen
President

Cc: Donovan Dela Cruz (Grant Kawaguchi)
Senator Clayton Hee
Representative Collen Meyer
Kahaluu Neighborhood Board
Bradley Chong, ESQ.



June 21, 2006

GERALD PARK
Urban Planner

David Y. Chinen, President
Waiahole and Waikane Community Association
48-411 Kam Highway
Kaneohe, HI 96744

- Planning
- Land Use
- Research
- Environmental Studies

1221 Kapiolani Blvd.
Suite 211
Honolulu, Hawaii
96814

■ Telephone: (808) 596-7484
■ Facsimile: (808) 596-7485
■ e-mail: geraldpark@aol.com

Dear Mr. Chinen

Subject: Waiahole Beach Park Master Plan
Waiahole-Waikane, Koolaupoko District, Oahu

Thank you for reviewing the draft environmental assessment prepared for the subject project. We offer the following responses in the order your comments were presented.

1. Delete Comfort Stations

The comfort station is a needed facility for park users. The lack of a comfort station may raise health and public safety concerns and detract from the recreation experience at the park.

2. Delete the Parking Stalls

Off-street parking is needed to accommodate all park users.

Providing diagonal parking along Kamehameha Highway would create potentially hazardous motoring conditions for vehicles on Kamehameha Highway and vehicles backing out onto the highway. City parking regulations requires that parking lots be designed such that no maneuvering into or from any street is necessary in to order to enter or leave a space and allows all vehicles to enter the street in a forward manner.

Vehicle entrances to the parking lots can be secured when the park is closed.

Park closure hours will be regulated by the Department of Parks and Recreation. Your suggested park closure hours from 10:00 PM to 5:00 AM is typical for many city parks.

3. Delete Baseball Field

Early on in the planning process, members of the Waiahole and Waikane Community Association expressed a need for a field to accommodate field sports. The lack of a baseball field was mentioned, as was the need for a field for youth and adult sports. The multi-purpose field provides for both and other open field recreation activities.

The Department of Design and Construction is aware of the drainage problems in the vicinity of the field. The area of the open field will be raised and a drainage system constructed. New drain lines would connect to existing drainage culverts under Kamehameha Highway to direct runoff away from the field. The field would be graded to allow runoff to drain off the playing surface.

David Chinen
June 21, 2006
Page 2

4. Landscaping of the Park

The area you talk about "passes the Manatad turn going North on Kam Highway" is not part of the Waiahole Beach Park Master Plan. A portion of this area at the mouth of Waiahole Stream, however, has been identified for wetland enhancement. A plan for this area will soon be prepared. We agree that restoring the viewplane (from Kamehameha Highway to Kaneohe Bay is an important consideration.

A budget estimate for improvements to this area will be included with the plan. If you recall, this parcel was acquired using ISTEPA funds from the Federal Highways Administration. The land was acquired in part for scenic enhancement purposes.

We thank the Waiahole and Waikane Community Association for participating in the environmental review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: T. Hildebrand, DDC

JANUARY 19, 2006

CITY & COUNTY DEPT. OF DESIGN & CONSTRUCTION
650 S. KING ST. HON.
ATTN: TERRY HILDEBRAND (PLEASE RELAY TO :GP. NO FAX #)

PARK URBAN PLANNER
1221 KAPIOLANI BLVD, STE#211
HON. HI
ATTN: GERALD PARK

THIS IS A LETTER OF RESPONSE TO YOUR PUBLIC COMMENTARY REGARDING THE BEACHFRONT PROPOSED PLANNING FOR WAIHALOE COMMUNITY PARK... FIRST OF ALL, I UNDERSTAND THE PLANNING WAS MADE WITH THE CITY PARKS & RECREATION AND A FEW OTHER INVOLVED WITH THE GENERAL LAYOUT WITHOUT ANY DISCUSSION OR MEETING WITH THE COASTAL RESIDENTS ON SPECIFICS OR EVEN TO NOTIFY ANY FAMILIES SUPPORT AND INTEREST WHICH IT'S DIRECTLY AFFECTING AND CONFRONTING THE CHANGES AS WE STILL EXIST TODAY AND HAVE A HISTORY AS WELL AS CULTURAL AWARENESS IN KNOWING THE TERRAIN MORE THAN MOST PEOPLE. WE ARE THE ONE OF THE FEW ORIGINAL FAMILIES WHO HAVE HAD A RELATIONSHIP WITH M/M MARKS WHO DUTIES POLICED AND CLEANED UP THE BEACHSHORE AT THE TIMES THE TREES WERE NOT TOUCHED AS WELL AS REMOVING DEBRIS AND MARINE ANIMALS OFF THE SHORE ALONG WITH FISH OR CRAB NETS AND BAIT CARELESSLY LEFT.. NOW THAT THE TREES HAVE BEEN REMOVED THERE ARE MORE DEBRIS AND RUBBISH AND OTHER PROBLEMS THAT AROSE DUE TO NEGLIGENCE OR ATTENTION TO RESOLVE PREVENTIVE AND MAINTENANCE ISSUES FROM THE STATE.... THE FOLLOWING IS SOME CONCERNS I AM ADDRESSING TO YOUR OFFICE(S) IN THE PROCESS OF THIS PLANNING OF THE PARK IMPROVEMENTS MAINLY ON LANDSCAPING ALSO A FEW QUESTIONS IF U COULD BE KIND ENOUGH TO RESPOND AT YOUR EARLIEST CONVENIENCE FOR FURTHER DISCUSSION TO THE MEMBERS OF THIS COMMUNITY..

MY ADDRESS IS: POB 837, KANEHOE HI 96744

1. WHERE IS THE BOUNDARY LINE THAT ENDS TO WHICH A PARK GOER ARE NOT ALLOWED TO WALK OR FORBIDDEN TO DISTURB THE ANCIENT BURIAL GROUND?
.. HOW WILL YOU PRESERVE THAT AREA!
2. REGARDING THE HIKING GRASS TRAILS WILL THAT CHANGE IN ANYWAY?
IT WAS TO BE USED FOR EDUCATIONAL PURPOSES FOR SCHOOL FIELD TRIPS FOR CULTURAL NATURE WALKS...
3. WILL THIS IMPROVEMENT AFFECT THE COASTAL RESIDENTS REAL PROPERTY TAXES VALUATION CAUSING UNAFFORDABILITY IN ANY WAY?
4. WHAT IS THE OFFICE OF ENVIRONMENTAL CONTROLS RESPONSIBILITIES AND FUNCTIONAL ROLE THEREAFTER THE PROJECT COMPLETION?
(PERMANENT OR TEMPORARY?)
5. REGARDING THE COASTAL ZONE IN REMOVING THE TREES AND BRUSHES FOR MANY REASONS, I'M SURE.. HAS THERE BEEN AN ACCURATE STUDY OF WHAT IMPACT IT WILL CAUSE AS WELL AS: WIND FACTOR, EXISTING FLOOD ZONES CONNECTING THE RIVERBENDS, EROSION CONTROL OR ANY DAMAGE TO ENDANGERED HABITANTS, NATURAL REMNANTS AND WHATS LEFT OF THE SOME SPECIES.. ALONG WITH THE TIME TO REGROW BARE TYPE OF PLANTS, ETC. ESPECIALLY PRESERVING AND ASSURING A RARE SPECIE OF WILDLIFE BE NOT HARMED IN ANY WAY AND FREE TO ROAM?

6. SUGGESTION: IT IS A NECESSITY FOR COUNTY MAINTENANCE TO PROVIDE MORE RUBBISH DISPOSALS AND REGULAR ONCE OR TWICE A MONTH PICKUPS/ RUBBISH CONTROL SHOULD HAVE ONE DESIGNATED AREA..

WE WOULD APPRECIATE ANY KIND OF NOTIFICATION BY MAIL AHEAD OF TIME ON WHEN AND WHO WILL BE WORKING ON EQUIPMENT OR TRIMMING TREES.. FOR SAFETY AND NOISE HAZARDS AS WELL AS PREVENTING ILLEGAL ACTIVITIES (GO'S)

I WOULD AND OTHERS WOULD LIKE VERY MUCH TO BE CONSIDERED ON THIS MATTER!!
I AM SOLELY RESPONSIBLE FOR THE CONTENTS OF THIS LETTER.

MAHALO NUI LOA/THANK YOU..

Mrs. Remy Bataionga, ET AL.

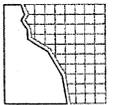
IN MY PREVIOUS LETTER I SENT TO YOU YESTERDAY I FAILED TO MENTION AND NEED TO KNOW THE STATUS REGARDING ONE TENANT WHOSE HOUSE WAS WRONGFULLY AND NOT NOTIFIED THAT HE WASN'T ALLOWED TO CONTINUE LIVING THERE.. HIS FAMILY HAS BEEN LIVING THERE BEFORE HIM AND WISHES TO STAY IN KEEPING THE BURIAL GROUNDS SAFE FROM VANDALISM.. AS HE MENTIONED THAT SOMEONE FROM THE CITY WAS TRYING TO REMOVE THE ANCIENT ROCK THAT WAS ORIGINALLY PLACED.

**WILL THERE BE ANY PROVISIONS BEING MADE FOR THIS EXISTING PARKKEEPER (MR. ABAD) WHOSE FAMILY LIVED THERE BEFORE CITY TOOK OVER, WHERE HE CAN CONTINUE TO GUARD THE PLACE WHICH IS THE OTHER END OF BEACHFRONT AREA. AGAIN HE HAS BEEN THERE SINCE WAY BEFORE THE PROCESS OF THE MASTER PLANNING.

AGAIN THANK U FOR YOUR COMMENTARY INQUIRY.

MY ADDRESS IS AVAILABLE IF YOU DECIDE TO ANSWER ANY QUESTIONS OR ANY CORRESPONDENCE IF NEED BE...

MS. ROSE BATALONA
PO8637
KANEOHE, HI 96744-



GERALD PARK
Urban Planner

- Planning
- Land Use
- Research
- Environmental
- Studies

■ 1221 Kapiolani Blvd.
Suite 211
Honolulu, Hawaii
96814

■ Telephone:
(808) 596-7484
Facsimile:
(808) 596-7485
e-mail:
geraldpark@aol.com

June 21, 2006

Rose Batalona
PO Box 837
Kaneohe, HI 96744

Dear Ms. Batalona:

Subject: Waiāhole Beach Park Master Plan
Waiāhole-Waikāne, Kōloaupoko District, Oahu

Thank you for reviewing the draft environmental assessment prepared for the subject project. We offer the following responses in the order your comments were presented.

1. Boundary Line for Burials

A boundary line for the burial plots found at Waiāhole Beach Park has not been established. The consulting archaeologists recommended and the Department of Design and Construction concurred that the two features found in the park—the burials and a *pohaku o kane*— will be left where they were found.

The consulting archaeologist's recommendation for the burials is to preserve it in place, mark it clearly and conduct regular landscape maintenance around it to preserve the integrity of the site and make it accessible. No development or other land modification should take place within this preserve area. It is important that the preserve area be included on all future development plan maps so that the preservation of this area will be incorporated into all future development plans for Waiāhole Beach Park.

The consulting archaeologists also made the same recommendation (as above) for the *pohaku o kane*.

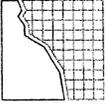
Both recommendations have been incorporated in the Master Plan for Waiāhole Beach Park. A preservation plan for both features will be prepared and submitted to the State Historic Preservation Division for review and approval. The approved Preservation Plan will then be incorporated into development plans for the park.

2. Hiking Trails

No hiking trails are known to occur within Waiāhole Beach Park.

3. Real Property Taxes

It is difficult to determine if park improvements *per se* would increase or decrease coastal resident's real property valuations. Real property valuations are driven primarily by the market (or supply and demand) for properties (coastal or elsewhere) and the sales of property in the area. If the demand for property in an area is high and there is sales activity in the area, then property values in the general area should tend to increase. Conversely if there is limited demand, then property values should remain relatively stable.



Changes in real property taxes are a function of the assessed value of real property (assessed by the Real Property Tax Office) and the tax rates for classes of land use (for example agriculture or improved residential) approved by the Honolulu City Council.

4. Role of Office of Environmental Quality Control

The Office of Environmental Quality Control would have no "responsibilities and functional role" after project completion.

5. Effect of Vegetation Removal

Biological and botanical surveys were performed for this environmental assessment and prior to the acquisition of property south of Waiāhole Stream and north of Waikane Stream. The studies found no rare, threatened, or endangered plants or animals occurring at Waiāhole Beach Park.

There have been no accurate studies about the effects of removing trees and brush would have on the coastal zone including wind factors, flooding, and erosion control.

Flood and erosion control will be addressed in design plans for the proposed improvements and for the areas where the improvements are planned.

6. Rubbish Disposal

Your comment about having more frequent rubbish collection in the park will be passed on to the Department of Parks and Recreation.

An area (or areas) for rubbish control has not been designated. Refuse collection crews typically collect refuse where refuse containers are placed.

7. Park Caretaker

The City and County of Honolulu does not have a resident park keeper living on the premises. The last tenant of record residing on property comprising the Master Plan was James Medeiros and family. He and his family were properly notified of the plans for the park and was given ample time to vacate the premises. The City and County of Honolulu helped him relocate in early 2002.

A family resides at the north end of the beach park. Since the property they are occupying is not included in the Waiāhole Beach Park Master Plan the City is allowing them to continue to reside on the premises.

The City conducted a comprehensive interview of people residing at Waiāhole Beach Park and adjoining lands to the north and south of the beach park. The interviews helped to determine the status of the residents and their eligibility for relocation assistance. There is no record of a Mr. Abad living on or near the beach park.

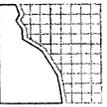
Thank you for participating in the environmental review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: T. Hildebrand, DDC





CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII 96813-3065 / TELEPHONE 547-7000

DONOVAN M. DELA CRUZ
COUNCIL CHAIR
COUNCIL DISTRICT II
TELEPHONE / (808) 547-7002
FAX: (808) 527-5737
EMAIL: dmdelacruz@honolulu.gov

January 20, 2006

TO: Mr. Wayne Hashiro, Director
Department of Design and Construction

ATTENTION: Mr. Terry Hildebrand

VIA: Mr. Jeff Coelho, Managing Director

FROM: Council Chair Donovan M. Dela Cruz

RE: Waiahole Beach Park Master Plan – Draft Environmental Assessment

THW

Considering the wide-ranging community input that my office has received, I would like to request that the Department of Design and Construction (DDC) consider extending the deadline for submitting comments regarding the Draft Environmental Assessment for the Waiahole Beach Park Master Plan. Further, I am requesting that DDC hold a public hearing to gather feedback from the community immediately surrounding the park and work with community members, including the Waiahole-Waikane Community Association and Kahaluu Neighborhood Board, to revisit the master plan and incorporate comments from all residents.

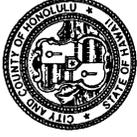
Your consideration of this request will be much appreciated. I look forward to your response. Should any additional information be required, please call me or my legislative aide, Grant Kawaguchi, at 527-5670.

DMD:gkk

Copy: Waiahole-Waikane Community Association
Kahaluu Neighborhood Board #29
Gerald Park Urban Planners

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567
Website: www.honolulu.gov



MUFI HANNEMANN
MAYOR

DIRECTOR
EUGENE C. LEE, P.E.
DEPUTY DIRECTOR

February 10, 2006

The Honorable Donovan M. Dela Cruz, Chair
Honolulu City Council
530 South King Street, Room 202
Honolulu, Hawaii 96813

Dear Chair Dela Cruz:

Subject: Waiahole Beach Park Master Plan
Draft Environmental Assessment (EA)

Thank you for your memorandum of January 20, 2006, concerning the draft EA for the Waiahole Beach Park Master Plan.

Pursuant to your request, the deadline for public submittal of comments to the above has been extended to February 15, 2006.

Regarding your request for a public hearing, the project will require the processing of a major Special Management Area (SMA) permit that requires the City Council's review and approval, including three public hearings—one conducted by the Department of Planning and Permitting in the community where the project is proposed, a second before the City Council's Zoning Committee, and a third before the full City Council. The SMA permit application will be submitted after completion of the current environmental disclosure process. We believe these will sufficiently address your concern.

For your information, the master plan process for this project has been lengthy and involved considerable community presentation and input before arriving at the present plan. The planning consultant mailed colored copies of the Waiahole Beach Park Master Plan to David Chinen, president of the Waiahole-Waikane Community Association (WWCA), on June 2, 2000, following our presentation at Waiahole Elementary School on May 31, 2000. Those plans were a little different from the current version but contained the same types of facilities (parking, comfort station, multi-purpose field, walkways, picnic areas) as the current plan. The WWCA did not submit any comments to that version of the master plan.

The master plan was also presented to the Kahaluu Neighborhood Board in April 2002. There were some criticisms of that plan's parking configuration and the means by which we intended to mitigate illegal fill of wetlands by the community on City land dating back to 1996. The comments we received from the community, the former director of the Department of Parks and Recreation, and the former City Councilmember of the district were incorporated into a revised master plan in December 2002.

The revised plan was provided to Kahaluu Neighborhood Board member John Reppun in March 2003 to bring up before the board at their monthly meeting. No additional comments from the community were received, and the drafting of the EA proceeded. Some additional project delay was encountered due to the fact that the new, alternative plan to mitigate wetland fill requires improvements to a land area not previously surveyed for archaeological or historical resources.

We believe our master plan process has been completed, and the plan reflects a consensus agreement from within the community and from the City.

Should there be any questions, please contact Clifford Lau, Chief, Facilities Division, at x6373.

Very truly yours,

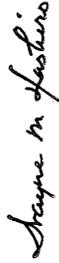


Eugene C. Lee, P.E.
Deputy Director

ECL:ei (138176)

c: Department of Parks and Recreation
✓Gerald Park Urban Planner

APPROVED:



Wayne M. Hashiro, P.E., Acting Managing Director
Office of the Mayor

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813
Telephone (808) 596-7484
Facsimile (808) 596-7485
Email: oeq@deq.hawaii.gov

January 20, 2006

Mr. Wayne Hashiro, P.E., Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

Mr. Gerald Park
Gerald Park Urban Planner
1221 Kapiolani Boulevard, Suite 211
Honolulu, Hawaii 96814

Dear Messrs. Hashiro and Park:

The Office of Environmental Quality Control has reviewed the draft environmental assessment for the Waihole Beach Park Master Plan, Tax Map Keys (1*) 4-8-002, parcels 1, 2, 4, 5, 6, 7, 9, 10, 12, and 4-8-001, portion of parcel 10, situated in the judicial district of Ko'olaupoko. We offer the following comments for your consideration and response.

Wetlands: Page 29 of the draft environmental assessment makes reference to 'auwai. Please ascertain with the State Historic Preservation Division whether these structures are subject to Chapter 6E, Hawai'i Revised Statutes.

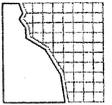
Guidance Documents: The Office recommends that you use guidance documents on biological assessment, cultural impact assessment, sustainable building, and native/indigenous landscaping found at our Internet website: <http://www.state.hi.us/health/oesq/index.html>.

Thank you for the opportunity to comment. If there are any questions, or if you would like to discuss this matter further, please call Mr. Leslie Segundo, Environmental Health Specialist, at (808) 586-4185.

Sincerely,

Genevieve Salmons
GENEVIEVE SALMONSON
Director

GENEVIEVE SALMONSON
DIRECTOR



June 21, 2006

GERALD PARK
Urban Planner

Genevieve Salmons, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813-2437

Dear Ms. Salmons:

Subject: Waihole Beach Park Master Plan
Waihole-Waikane, Ko'olaupoko District, Oahu

Thank you for reviewing the draft environmental assessment prepared for the subject project. We offer the following responses in the order your comments were presented.

1. Wetlands

The Department of Design and Construction will consult with the State Historic Preservation Division if future use of the *auwai* would be subject to Chapter 6E, Hawaii Revised Statutes.

2. Guidance Documents

Biological and cultural impact assessments for Waihole Beach Park have been completed.

The Master Plan recommended using native plant materials in the landscaping.

We thank the Office of Environmental Quality Control for participating in the environmental review process.

Sincerely,

GERALD PARK URBAN PLANNER
Gerald Park
Gerald Park

c: T. Hildebrand, DDC

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 525-4432 • FAX: (808) 527-6745
DEPT. INTERNET: www.honolulu.gov • INTERNET: www.honolulu.gov



MUJI HANNEMANN
MAYOR

HENRY ENG, FAICP
DIRECTOR

DAVID K. TANIGUE
SENIOR DIRECTOR

2005/ELOG-2783 (RS)

January 19, 2006



Mr. Gerald Park
Urban Planner
1221 Kapiolani Boulevard, Suite 211
Honolulu, Hawaii 96814

Dear Mr. Park:

Re: Draft Environmental Assessment Report for Waiahole Beach Park Master Plan in
Waiahole, Oahu, Hawaii; TMK: 4-8-002: 01, 02, 04, 05, 06, 07, 09, 10, 11, 12
and 4-8-001: por. 10

Thank you for the opportunity to review the Waiahole Beach Park Master Plan October, 2005
Draft Environmental Assessment, and the anticipated issuance of a "Finding of No Significant
Impact" (FONSI), which you are preparing for the Department of Design and Construction.

We offer the following comments for your review and consideration for the Final EA report:

1. Description of the Proposed Project on page 1 and the Park Master Plan: Since
the 0.850 acre lot (Tax Map Key 4-8-02: 008) is part of the beach park, then it
should be added to the other ten (10) parcels listed. The label, "Figure 3," should
be also added to the master plan for identification.
2. Section D. Social Characteristics on page 5: The sentence that the beach park is
unoccupied should be revised to be consistent with the sentences that follow, i.e.
"A family occupies the northernmost lot at the beach park", and "Two separate
occupied house sites are located in the area proposed for wetland mitigation."
The sentence on page 5 should be amended as follows: Parcel 8 is not included in
the Waiahole Beach Park Master Plan because there are no improvements planned
for this lot at this time.

Gerald Park, Urban Planner
January 19, 2006
Page 2

3. Section 2.M.1. State Land Use District on pages 22 and 38: The proposed project
is considered "open area recreation" and is permitted in the State Land Use
Agricultural District.
4. Section 2.M.3. Koolauopoko *Sustainable* Communities Plan (SCP) on
pages 24 to 26: The project is in general conformance with the Koolauopoko SCP.
The DEA should disclose what, if any, proposed exterior lighting, and their
impact on the nighttime environment and any affected fauna. To minimize
lighting impacts, exterior fixtures should be fully shielded and with minimal
intensity to meet health and safety requirements.
5. Section 2.M.4. Land Use Ordinance on page 24: Note that a waiver from the LUO
AG-2 general agricultural district development standards may be required if the
proposed improvements exceed these standards.
6. Section 3.B.3. Short-term impacts – Erosion on pages 34 and 35: The project
may need to comply with Section II (Storm Water Quality) of the "Rules Relating
to Storm Drainage Standards."
7. Section 3.C.3 Long-term impacts - Drainage on page 38: A drainage report will
be required later for review and approval by the Civil Engineering staff of DPP's
Site Development Division.
8. Section 6. Permits and Approvals on page 45: Delete "Permit to Excavate Public
Right-of-Way" from the list of City permits, if no City streets are affected.
9. We suggest adding the following:
 - a. A "photographic key" for the images, and the direction of the
photograph to the captions.
 - b. References on pages 49 and 50: Add the *General Plan*, amended
October 3, 2002 by Resolution 02-205, CD1, as another reference from
DPP.
 - c. Koolauopoko Public Infrastructure Map (PIM): A "park" symbol for the
proposed Waiahole Beach Park is included on the Koolauopoko PIM as
PIM symbol number 003. The PIM listing allows budgeting and
expenditure of future Capital Improvement Program (CIP) funds for
construction by the City, as required by Section 4.8.1(c) of the Public
Infrastructure Map Ordinance, which was adopted by the City Council as
Ordinance 02-03 on January 30, 2002.

Please call Ray Sakai of my Policy Planning Branch staff at 523-4047 if you have any questions.

Very truly yours,

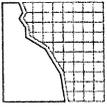


Henry Eng, FAICP, Director
Department of Planning and Permitting

HE:js

cc: Director, Office of Environmental Quality Control
Terry Hildebrand, Project Coordinator, DDC

p:\divfunction\ea-eis\2005\elog2783.doc



GERALD PARK
Urban Planner

■ Planning
Land Use
Research
Environmental
Studies

■ 1221 Kapiolani Blvd.
Suite 211
Honolulu, Hawaii
96814

■ Telephone:
(808) 596-7484
Facsimile:
(808) 596-7485
e-mail:
geraldpark@aol.com

June 21, 2006

Henry Eng, FAICP, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Eng:

Subject: Waiāhole Beach Park Master Plan
Waiāhole-Waikāne, Kōlaupoko District, Oahu

Thank you for reviewing the draft environmental assessment prepared for the subject project. We offer the following responses in the order your comments were presented.

1. Description of the Proposed Project

TMK 4-8-002: 008 will be added to the list of properties comprising the beach park.

2. Social Characteristics

The sentence will be amended as you suggested. The two separate occupied house sites in the area proposed for wetland mitigation are not part of the beach park per se.

3. State Land Use District

The typographical error will be corrected.

4. Kōlaupoko Sustainable Communities Plan

The Master Plan does not recommend exterior lighting for the beach park. The comfort station may be lighted for security purposes. It has not been determined if the parking areas will be lighted.

5. Land Use Ordinance

No response required.

6. Short-term impacts-Erosion

Thank you for the information on "Rules Relating to Storm Drainage Standards".

7. Short-term impacts-Drainage

A drainage report will be submitted for DPP review and approval.



Henry Eng
June 21, 2006
Page 2

8. Permits and Approvals

The permit you identified for deletion will remain listed because roadwork may be required within the Waiahole Valley Road right-of-way.

9. Thank you for your suggestions. Items a., b., and c. will be included in the Final Environmental Assessment.

We thank the Department of Planning and Permitting for participating in the environmental review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: T. Hildebrand, DDC

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

48-162 Waiāhole Valley Road

Kāne ohe, HI 96744

Emil Wolfgramm, President

22 January 2006

Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, HI 96813

Comments Regarding Waiāhole Beach Park Master Plan Draft Environmental Assessment

As the spokesman and President of the Waiāhole Landowners Association we wish to register our thoughts upon the following items:

- (1) Scale the parking areas to a smaller scale from the proposed numbers of parking stall. A more appropriate scale would on the same number of parking stalls as offered in Lāiemalo Pounders parking area of about 20 parking stalls.
- (2) We approve the inclusion of bathroom and shower facilities with a covered area for public use.
- (3) There should be consideration for night field lights for the main recreation areas sufficient for two full size soccer or rugby fields. Plans should utilize the ocean side of the electric utility poles for field lights.
- (4) Starting from the northern area of Waiāhole Beach Park, the following cultural sites should be recognized through appropriate signage:
 - a. Waiāoli and Waiāloia;
 - b. Waiānu Stream;
 - c. the birth place of Kuali'i at the mouth of Waiāhole River;
 - d. the foreshore areas attached to Kaimālo'o that provided a resting place and sites for voyaging canoe repairs and replenishment;
 - e. the foreshore areas named after Māui Māwaena, the second of the Māui brothers lying along the shores of Kāne'ohe Bay;
 - f. the hau forest, at the mouth of Waiāhole River where the pathway of plucked hibiscus blossoms originated through the channel to Moloka'i island where the flowers were gathered and provided the returning pathway for Iad and his love to reunite as symbols of mana ka honua; this same hau forest was a source of iako for both fishing and voyaging canoes. This forest should supply this important technology once more;



h. the auwai water delivery should be restored and used to raise traditional wet field crops such as taro as well as other dry field crops. Such programming where the public would be organized through community partnerships supporting island gardening programming. A goal would be to provide plant stock for taro cultivation at no cost to the gardening public population;

(2) We do not recommend that the area of Hanakea adjacent to the hau forest in the southern area be designated as wetlands since the ancient use of this area, as it's name indicates was recognized as a productive taro cultivation area. We strongly recommend that this area be named something other than wetlands! This is a cultural-phobic designation to traditional Hawaiian taro cultivation. The wetland designation is another example of the abuse of using definition as a means of creating inappropriate sectionality.

It is important to find another title for this area that would not prevent the traditional cultivation of taro in this prime growing area.

There is the Hawaiian proverbial boast that says Kalo pa a o Waiāhole: The hard firm taro of Waiāhole! The hard firm taro was so dense, supposedly, that it could substitute for firewood, would you believe.

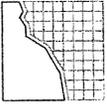
Can we of modern world time and space duplicate the achievements of the ancient Hawaiian taro cultivators of Waiāhole? We, at Waiāhole Landowners Association say, yes, we all can.

In connection with these wahi pana, significant cultural sites, we recommend the building of an appropriate cultivators ceremonial plaza, or malae, with supporting buildings such as storage sheds, etc. in support of public involvement cultivation and education sites.

I trust that we can form a collaborative partnership at some future date.

Yours truly,

Emil Wolfgramm,
President.



June 21, 2006

GERALD PARK
Urban Planner

- Planning
- Land Use Research
- Environmental Studies
- 1221 Kapiolani Blvd.
Suite 211
Honolulu, Hawaii
96814
- Telephone: (808) 596-7484
- Facsimile: (808) 596-7485
- e-mail: geraldpark@aol.com

Emil Wolfram, President
Waiahole Landowners Association
48-162 Waiahole Valley Road
Kaneohe, Hawaii 96744

Dear Mr. Wolfram:

Subject: Waiahole Beach Park Master Plan
Waiahole-Waikāne, Kōloaupoko District, Oahu

Thank you for reviewing the draft environmental assessment prepared for the subject project. We offer the following responses in the order your comments were presented.

1. Parking Area

The number of parking stalls to be provided is considered appropriate for the size of the park and the anticipated use of the multi-purpose field and open space areas.

2. Bathroom

There are no showers planned for the comfort station at this time.

3. Field Lights

The Master Plan does not make recommendations for lighting the multi-purpose field. The Waiahole Beach Park Master is not an end-state document. Over time, the plan can and should be updated to reflect changing public recreation needs and facilities (for example, lighting the multi-purpose field or adding shower facilities to the park) and a community wide consensus for what the park should be.

4. Cultural Sites Signage

Your suggestions for providing appropriate signage at cultural sites within the park will be presented to the Department of Design and Construction and Department of Parks and Recreation for their consideration.

Restoring the *auwai* water delivery system was discussed in the Technical Report "Wetland Concept Plan" prepared by AECOS Consultants. Although its restoration could lead to restoring former taro *lo'i* makai of Kamehameha Highway, the City has no plans for restoring the *auwai* at this time.

5. Agricultural Plaza

There are no plans to construct a "cultivators ceremonial plaza with supporting buildings, at Waiahole Beach Park at this time.

Emil Wolfram
June 21, 2006
Page 2

The suggestions offered by your organization can be considered at a later time. As recreation needs change over time, the Waiahole Beach Park Master Plan can be revised by consensus of community input.

We thank the Waiahole Landowners Association for participating in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c. T. Hildebrand, DDC



Bringing Nature Closer to you for over 25 years.

January 19, 2006

Department of Design and Construction
650 S. King Street
Honolulu, HI 96813

RE: Waiahole Beach Park Master Improvement Plan

To Whom It May Concern:

I have lived in Waiahole Valley for over 25-years. I am a local resident, born on Lanai. I have watched the dedicated effort of the Waiahole/Waikane Community tackle this immense job of cleaning this site to remove trash and open up this spectacular view plane. They also helped relocate undesirable squatters that had been living there for years. In as much as they deserve all the credit for this monumental task, we must not forget that your Improvement Plan will undoubtedly be the best next step in benefiting this area.

I am a landscape contractor by trade – thirty years in the business – and your efforts to add parking, restrooms and walking trails will be the best use of this land. This park can really serve many local residents on this side of the Island. In fact, I suggest that you clear the remaining Hao on the south side of the Waiahole stream all the way to the turn. This would really make this coast line spectacular!

I am strongly in favor of your plan to improve this coastline park.

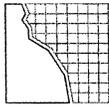
Mahalo,

John Wilkinson
President
Back To Eden

JPH/kc

P.O. Box 661 ~ Kaneohe, Hawaii 96744 ~ Ph. (808) 239-5455
Fax (808) 239-8863 ~ backtoeden@hotmail.com

Waiahole Beach Park - 1-18-06



GERALD PARK
Urban Planner

- Planning
- Land Use
- Research
- Environmental
- Studies

1221 Kapiolani Blvd.
Suite 211
Honolulu, Hawaii
96814

Telephone:
(808) 596-7484
Facsimile:
(808) 596-7485
e-mail:
geraldpark@aol.com

June 21, 2006

John Wilkinson, President
Back to Eden
PO Box 661
Kaneohe, Hawaii 96744

Dear Mr. Wilkinson:

Subject: Waiahole Beach Park Master Plan
Waiahole-Waikane, Koolaupoko District, Oahu

Thank you for reviewing the draft environmental assessment prepared for the subject project. We acknowledge and appreciate your support for the Waiahole Beach Park Master Plan. It is anticipated that Waiahole Beach Park will be a valuable addition to existing County and State recreation areas and facilities on the Windward side of the island.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: T. Hildebrand, DDC

RECEIVED
DEPT OF DESIGN & CONSTR
C & C OF HONOLULU

06 JAN 23 PM 1:24

137 K-74
JW
JPH
COPY DFR



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



HRD05/372 B

January 20, 2006

Gerald Park
Urban Planner
1221 Kapi'olani Blvd.
Suite 211
Honolulu, HI 96814

RE: Request for Comments on a Draft Environmental Assessment for the Waiāhole Beach Park Master Plan, Waiāhole, O'ahu, TMKS: 4-8-002:001, 002, 004, 005, 006, 007, 009, 010, 011, 012; and 4-8-001:010 (portion)

Dear Gerald Park,

The Office of Hawaiian Affairs (OHA) is in receipt of your November 30, 2005, request for comments on the above-proposed project, which would include creation of a 5-acre open space/playing field, two new access locations from Kamehameha Highway (with a third access point reserved for a future time), parking area for approximately 50 vehicles, parking area for 20 vehicles, left turn storage lanes for entrance from the highway to the planned parking lots, traffic barriers along the highway for highway safety standards, two new 18-inch drain lines, cornfort station, septic tanks and individual wastewater system, walkway to access the shoreline and picnic and recreation areas, picnic areas, and a State bikeway along the highway. OHA offers the following comments.

We were glad to read that the two archaeological sites found within the property will be preserved in place, with a preservation plan to be submitted to the State Historic Preservation Division for review and potential approval. OHA will rely on the applicant's assurances that should iwi kūpuna or Native Hawaiian cultural or traditional deposits be found during ground disturbance or excavation, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

OHA further appreciates the need for increased public access to park lands and the shoreline. We therefore commend the City and County for attempting to improve infrastructure discrepancies in those arenas.

Gerald Park
January 20, 2006
Page 2

We request that any permanent landscaping use native and endemic vegetation. This will enable the area to absorb as much water as is locally and naturally possible, while also ensuring fewer introductions of alien species to our fragile ecosystems.

We appreciate the plan to enhance two areas for wetlands on lands south of Waiāhole Stream, including existing wetlands and potentially former wetlands, to mitigate an inadvertent filling of wetlands during a community clean-up of Waiāhole Beach Park in 1996. OHA hopes that the lo'i restoration concept will be appropriately and fully discussed with the community, including OHA.

Please note that consideration must be given to applicable cultural gathering and access rights during and after construction activities. Native Hawaiian traditional gathering rights and public access to and along the shoreline should not be restricted – even during construction – except as necessary to ensure safety. If such safety-related restrictions are put in place, alternate public access routes must be provided.

We question the accuracy of the statement that "[t]he beach park in unoccupied thus no resident will be displaced because of the proposed improvements." We have noted several individuals and families living in their vehicles in the area, and wonder at the justice in removing them without relocation options.

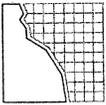
Thank you for the opportunity to comment. If you have further questions, please contact Heidi Guth at (808) 594-1962 or e-mail her at heidig@oha.org.

Sincerely,

Clyde W. Nāmu'ō
Administrator

CC: Genevieve Salmonsomson
Office of Environmental Quality Control
235 South Beretania St., Room 702
Honolulu, HI 96813

Terry Hildebrand
Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, HI 96813



June 21, 2006

GERALD PARK
Urban Planner

Clyde Namu'o, Administrator
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

■ Planning
■ Land Use
■ Research
■ Environmental
■ Studies

Dear Mr. Namu'o:

Subject: Waiahole Beach Park Master Plan
Waiahole-Waikane, Ko'olaupoko District, Oahu

■ 1221 Kapiolani Blvd.
Suite 211
Honolulu, Hawaii
96814

■ Telephone:
(808) 596-7484
Facsimile:
(808) 596-7485
e-mail:
geraldpark@aol.com

Thank you for reviewing the draft environmental assessment prepared for the subject project. We offer the following responses in the order your comments were presented.

The Master Plan recommended using native plants in the landscaping. The use of indigenous endemic plants will be discussed with the landscape architect during the design phases for individual park improvements.

A Wetland Concept Plan was prepared for the area makai of Kamehameha Highway and on the south side of Waiahole Stream. The Concept Plan included a component for restoring former taro *lo'i* in the same area. The City and County of Honolulu has not endorsed the *lo'i* restoration concept.

Cultural gathering and access rights will be provided during construction except as you noted to ensure public safety. Alternate public access routes would then be provided.

The statement is accurate. The last known tenant on the beach park property, James Medeiros and family, were relocated in January 2002 with relocation assistance from the City. The City conducted a comprehensive interview of people residing at Waiahole Beach Park and adjoining lands to the north and south of the beach park. The interviews helped to determine the status of the residents and their eligibility for relocation assistance. The City has provided the relocation assistance it determined it was responsible by law to provide. Any individuals and families you observed living in their vehicles in the area should not be residing in the park. Because these individuals and families must have come later (after the survey following City land acquisition) they are deemed ineligible for relocation assistance.

We thank the Office of Hawaiian Affairs for participating in the environmental review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: T. Hildebrand, DDC



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

February 23, 2006

RODNEY K. HARAGA
DIRECTOR
Deputy Directors
BRUCE Y. MATSUI
BARRY FUKUNAGA
BRENNON T. MORIOKA
BRIAN H. SEKIGUCHI
IN REPLY REFER TO:

STP 8.2045



Mr. Gerald Park
Gerald Park Urban Planner
1221 Kapiolani Boulevard, Suite 211
Honolulu, Hawaii 96814

Dear Mr. Park:

Subject: Waiahole Beach Park Master Plan
Draft Environmental Assessment, October 2005
TMK: 4-8-002: 01, 02, 04, 05, 06, 07, 09, 10, 11, 12
4-8-001: por. 10

We have the following comments on the subject assessment report for Waiahole Beach Park in response to your request for our review:

1. We recommend that the schematic and/or preliminary plans and analysis for changes or improvements adjoining or within the State highway right-of-way, including the following, be submitted to our Highways Division for review and initial approval before any final design and construction plans are prepared: (a) the proposed new driveways, left turn lanes, and other related road and intersection changes, and (b) new drain lines proposed to tie into existing lines under that highway.
2. Further explanation is needed on how the proposed highway "traffic barriers" will improve safety. Any proposed vehicle and/or traffic barriers should be constructed on City & County property outside the highway right-of-way.
3. Our Highways Division's September 2003 Bike Plan Hawaii proposes improvement of Kamehameha Highway fronting Waiahole Beach Park as a "signed shared roadway" rather than as a "future bikeway". Planning for the beach park should consider whether it is more desirable for the City & County to construct a bikeway makai of the highway right-of-way.
4. The assessment report proposes "wetland mitigation" and displacement of two families on property acquired with FHWA funds for "scenic preservation". The report should be revised to acknowledge that NEPA compliance and FHWA and State approval are necessary and required before the City & County undertakes the proposed action.

Mr. Gerald Park
Page 2
February 23, 2006
STP 8.2045

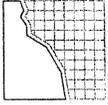
5. The assessment report discussed and reviewed traffic on Kamehameha Highway. This analysis should be updated using more current traffic data (2002 and later).
6. Our Highways Division will not agree to lower the existing 35 mph speed limit next to Waiahole Beach Park without sufficient supporting justification. A proposal for speed limit change will need to be documented in a study prepared by a qualified and experienced traffic engineer containing appropriate documentation and analysis. The study must also be reviewed and approved by the Highways Division. Without this, the Division would probably not consider the proposal to reduce the speed limit.
7. No additional surface water runoff (storm) will be allowed into the State highway right-of-way.
8. Plans for all construction work within or adjoining the State highway right-of-way must be in accordance with State highway standards and submitted for our review and approval. This shall include all appropriate construction and environmental permits, including any applicable permits from our Highways Division.

We appreciate the opportunity to provide our comments and look forward to further advance coordination between the City & County and our Department regarding the plans for Waiahole Beach Park.

Very truly yours,

RODNEY K. HARAGA
Director of Transportation

c: C & C DDC (T. Hildebrand)



August 8, 2006

Rodney K. Haraga, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Haraga:

Subject: Waiāhole Beach Park Master Plan
Waiāhole -Waikāe, Kōloaupo District, Oahu
STP 8.2045

Thank you for reviewing the draft environmental assessment prepared for the subject project. We offer the following responses in the order your comments were presented.

1. Plans for work or improvements within the State highway right-of-way will be submitted to the Highways Division for review and approval.

Drainage plans will be submitted to the Highways Division for review and approval. At this time, connections to existing drain lines under Kamehameha Highway are proposed at the south end of the park where a multi-purpose field is planned.

2. The "traffic barriers" would prevent inattentive motorists from driving off the road and into the park. In the vicinity of the proposed multi-purpose field there is a slight bend in the road and about a 3-foot grade differential between Kamehameha Highway and the multi-purpose field. Northbound motorists failing to negotiate the bend could end up on the multi-purpose field.

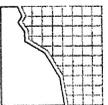
The location of the barriers or even highway guardrails should be discussed with park planners and Highways Division staff.

3. A dedicated bikeway to be located *makai* of the Kamehameha Highway ROW is not proposed in the Waiāhole Beach Park Master Plan. A shared, accessible pathway for pedestrians, bicyclists, and the handicapped is proposed to link park areas and facilities and to provide access to and along the shoreline.

4. Compliance with NEPA and FHWA approval for wetland mitigation will be noted in the Final Environmental Assessment.

5. We agree that an updated traffic study is needed with newer traffic count figures. This report will be provided when the project comes closer to the actual time of construction.

6. Lowering the existing 35 mph speed limit next to Waiāhole Beach Park is not part of the proposed action but was mentioned as a possible measure for improving vehicle and pedestrian safety in the vicinity of the beach park.



GERALD PARK
Urban Planner

■ Planning
■ Land Use
■ Research
■ Environmental
■ Studies

■ 1221 Kapiolani Blvd.
Suite 211
Honolulu, Hawaii
96814

■ Telephone:
(808) 596-7484

■ Facsimile:
(808) 596-7485

■ e-mail:
geraldpark@aol.com

Rodney K. Haraga
August 8, 2006
Page 2

If the City considers a proposal to lower the speed limit, then the appropriate documents justifying a lowering of the speed limit will be submitted to the Department of Transportation for consideration.

7. Storm runoff from the proposed park improvements should not enter onto the State highway.

8. Construction plans for work within or adjacent to the State highway right-of-way shall be prepared in accordance with State highway standards. Also see response to Comment 1.

We thank the Department of Transportation for participating in the environmental review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: T. Hildebrand, DDC



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
 601 KAMOKILA BOULEVARD, ROOM 355
 KAPOLEI, HAWAII 96707

PETER T. YOUNG
 BOARD OF LAND AND NATURAL RESOURCES
 COMMISSIONER OF WATER RESOURCES MANAGEMENT
 ROBERT K. MALINDA
 DEPUTY DIRECTOR - LAND
 DEAN MAKIHO
 ACTING DEPUTY DIRECTOR - WATER
 AQUATIC RESOURCES
 BOARD OF WATER RESOURCES
 DEPARTMENT OF LAND AND NATURAL RESOURCES
 DIVISION OF CONSERVATION
 COMMISSIONER OF WATER RESOURCES MANAGEMENT
 CONSERVATION AND RESTORATION PROGRAM
 FORESTRY AND WILDLIFE
 KAPOLEI WATER RESOURCES COMMISSION
 STATE PARKS



February 22, 2006

Mr. Gerald Park
 1221 Kapiolani Boulevard, Suite 211
 Honolulu, Hawaii 96814

LOG NO: 2006.0369
 DOC NO: 0602CM47
 Archaeology

Dear Mr. Park:

**SUBJECT: Chapter 6E-8 Historic Preservation Review –
 Draft Environmental Assessment-Waiāhole Beach Park Master Plan
 Waiāhole Ahupua‘a, Ko‘olaupoko District, Island of O‘ahu
 TMK: (1) 4-8-002: various & 4-8-001:010 (portion)**

Thank you for the opportunity to review the aforementioned report, which we received on December 8, 2006. We apologize for the delay in responding.

In 2002, Cultural Surveys of Hawai‘i, Inc. (CSH) conducted an archaeological inventory survey of the entire proposed project area [Perzinski *et al.* 2002, *An Archaeological Inventory Survey of an Approximately 21-Acre Parcel at Coastal Waiāhole Ahupua‘a, Ko‘olaupoko District, O‘ahu (TMK 4-8-002:001:002,004-012), SHPD Rpt. No. O-2104*]. Two sites were documented: SHP No. 50-80-10-1086, an earthen mound topped with six rectangular rock alignments, interpreted as a historic cemetery; and, SHP No. 50-80-10-6396, a large basalt boulder, interpreted as a *pohaku o Kane* (or “God stone”).

Both of these sites, which are located near the southeastern end of the proposed project area, have been recommended for permanent, in-place preservation and avoidance (Perzinski *et al.* 2002:57). Preservation plans for these two sites should be drafted and submitted to the SHPD for review before the start of planned construction in the project area.

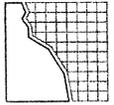
CSH also recommended archaeological monitoring for “...all grading and grubbing activities on the peninsula on the north bank of the Waiāhole river where the Land Commission Awards are congregated. This [monitoring] is recommended for the area of 50-80-10-1086 and 50-80-10-6396 as well as potential inadvertent human burial finds on the peninsula.” An archaeological monitoring plan should be drafted and submitted to the SHPD for review before the start of planned construction in the project area.

Please call the SHPD at 808-692-8015 if you have any questions about this letter.

Aloha,

Melanie Chinen, Administrator
 State Historic Preservation Division

CM:dlb



GERALD PARK
 Urban Planner

- Planning
- Land Use Research
- Environmental Studies

1221 Kapiolani Blvd.
 Suite 211
 Honolulu, Hawaii
 96814

Telephone: (808) 596-7484
 Facsimile: (808) 596-7485
 e-mail: geraldpark@aol.com

June 21, 2006

Melanie A. Chinen, Administrator
 Historic Preservation Division
 Department of Land and Natural Resources
 State of Hawaii
 555 Kakuhihewa Building
 601 Kamokila Boulevard
 Kapolei, Hawaii 96707

Dear Ms. Chinen:
 Subject: Waiāhole Beach Park Master Plan
 Waiāhole-Waikāne, Ko‘olaupoko District, Oahu

Thank you for reviewing the draft environmental assessment prepared for the subject project. We offer the following responses in the order your comments were presented.

Preservation plans for the burial plots and the *pohaku o Kane* shall be prepared and submitted to your office for review and approval before the start of construction in the immediate area.

An archaeological monitoring plan for the ground area identified by the consulting archaeologists shall be submitted to our office prior to construction in the identified area.

We thank the State Historic Preservation Division for participating in the environmental review process.
 Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: T. Hildebrand, DDC



DISABILITY AND COMMUNICATION ACCESS BOARD

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

February 15, 2006



Mr. Terry Hildebrand
Planner VI
Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, HI 96813

Regarding: Waiahole Beach Park Master Plan

Dear Mr. Hildebrand,

The Disability and Communication Access Board (DCAB) would like to thank you for the opportunity to review the Waiahole Beach Park Master Plan. The purpose of this review is to ensure that this project will take into account accessibility design requirements for persons with disabilities.

The following general statement should be included in the Master Plan:

"All buildings, facilities, and sites shall conform to applicable federal, state, and county accessibility guidelines and standards. Hawaii Revised Statutes §103-50 requires all State of Hawaii or County government buildings, facilities, and sites to be designed and constructed to conform to the Americans with Disabilities Act Accessibility Guidelines, the Federal Fair Housing Amendments Act, and other applicable design standards as adopted and amended by the Disability and Communication Access Board. The law further requires all plans and specifications prepared for the construction of State of Hawaii or County government buildings, facilities, and sites to be reviewed by the Disability and Communication Access Board for conformance to those guidelines and standards."

We strongly encourage the use of the following accessibility guidelines, published by the U.S. Access Board. These accessibility guidelines are not yet enforceable by the U.S. Department of Justice under the Americans with Disabilities Act (ADA), nor have they been adopted by state rules under Hawaii Revised Statutes §103-50. However, these accessibility guidelines provide guidance for a minimal level of accessibility for those elements not addressed by the enforceable ADA Accessibility Guidelines:

- ADA Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines; Public Rights-of-Way, published November 23, 2005;

Mr. Terry Hildebrand
Re: Waiahole Beach Park Master Plan
February 15, 2006
Page 2

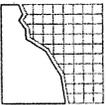
- ADA Accessibility Guidelines for Buildings and Facilities; ABA Accessibility Guidelines; Recreation Facilities; Supplemental Notice of Proposed Rulemaking, published September 3, 2002;
 - Regulatory Negotiation Committee on Accessibility Guidelines for Outdoor Developed Areas, Final Report, published September 30, 1999.
- The above reflects the Disability and Communication Access Board's advice and recommendations for the Waiahole Beach Park Master Plan.

Should you have any further questions, feel free to contact Mr. Gary Batcheller, Facility Access Specialist at 586-8121.

Sincerely,


FRANCINE WAI
Executive Director

c: Gerald Park
Urban Planner



June 21, 2006

GERALD PARK
Urban Planner

■ Planning
Land Use
Research
Environmental
Studies

■ 1221 Kapiolani Blvd.
Suite 211
Honolulu, Hawaii
96814

■ Telephone:
(808) 596-7484
Facsimile:
(808) 596-7485
e-mail:
geraldpark@aol.com

Francine Iwai, Executive Director
Disability and Communication Access Board
State of Hawaii
919 Ala Moana Boulevard, Room 101
Honolulu, Hawaii 96814

Dear Ms. Iwai:

Subject: Waiāhole Beach Park Master Plan
Waiāhole-Waikāne, Kōʻolaupoko District, Oahu

Thank you for reviewing the draft environmental assessment prepared for the subject project.

The City will strive to comply with the recommended guidelines in addition to legally prescribed federal, state, and county accessibility standards.

Plans and specifications will be forwarded to the Disability and Communication Access Board for review and conformance with applicable standards and guidelines.

We thank the Disability and Communications Access Board for participating in the environmental review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: T. Hildebrand, DDC



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

In reply, please refer to:
EPO-05-126

January 18, 2006



Mr. Gerald Park
1221 Kapiolani Boulevard
Suite 211
Honolulu, Hawaii 96814

Dear Mr. Park:

SUBJECT: Draft Environmental Assessment for Waiahole Beach Park Master Plan at
Waiahole, Koolaulupo District, Oahu, Hawaii

Thank you for allowing us to review and comment on the subject document. We have the
following Environmental Planning Office comments.

Environmental Planning Office

Please note that some of the following issues may not apply to your particular proposed project
or requested action. Should you have any questions about the applicability of the listed concerns
or the particular environmental programs administered by our office, please feel free to contact
us.

To facilitate TMDL development and implementation, and to assist with our assessment of the
potential impact of proposed actions upon water quality, pollutant loading, and biological
resources in receiving waters, we suggest that environmental review documents, permit
applications, and related submittals include the following standard information and analyses.
Please note that these comments are also listed on our website:
www.state.hi.us/health/environmental/env-planning/landuse/landuse.html. We suggest that you
also review other Standard Comments on this website.

Waterbody type and class

1. Identify the waterbody type and class, as defined in Hawaii Administrative Rules Chapter
11-54 (<http://www.state.hi.us/health/about/rules/11-54.pdf>), of all potentially affected
water bodies. Potentially affected water bodies means those in which proposed project
activity would take place and any others that could receive water discharged by the

Mr. Park
January 18, 2006
Page 2

proposed project activity or water flowing down from the proposed site. These
waterbodies can be presented as a chain of receiving waters whose top link is the project
site upslope and whose bottom link is in Pacific Ocean "oceanic waters," with all
receiving waters named according to conventions established by Chapter 11-54 and the
List of Impaired Waters in Hawaii Prepared under Clean Water Act § 303(d). For
example, a recent project proposed for Nuhelewai Stream, Oahu (a tributary of Kapalama
Canal) might potentially affect Nuhelewai Stream, Kapalama Canal, Honolulu Harbor
and Shore Areas, and the Pacific Ocean.

Existing water quality management actions

2. Identify any existing National Pollutant Discharge Elimination System (NPDES) permits
and related connection permits (issued by permittees) that will govern the management of
water that runs off or is discharged from the proposed project site or facility. Please
include NPDES and other permit numbers; names of permittees, permitted facilities, and
receiving waters (including waterbody type and class as in 1. above); diagrams showing
drainage/discharge pathways and outfall locations; and note any permit conditions that
may specifically apply to the proposed project.

3. Identify any planning documents, groups, and projects that include specific prescriptions
for water quality management at the proposed project site and in the potentially affected
waterbodies. Please note those prescriptions that may specifically apply to the proposed
project.

Pending water quality management actions

4. Identify all potentially affected water bodies that appear on the current *List of Impaired
Waters in Hawaii Prepared under Clean Water Act §303(d)* including the listed
waterbody, geographic scope of listing, and pollutant(s) (See Table 5 at
<http://www.hawaii.gov/health/environmental/env-planning/wqmi/303dpcfinal.pdf>).
5. If the proposed project involves potentially affected water bodies that appear on the
current *List of Impaired Waters in Hawaii Prepared under Clean Water Act §303(d)*,
identify and quantify expected changes in the following site and watershed conditions
and characteristics
 - surface permeability
 - hydrologic response of surface (timing, magnitude, and pathways)
 - receiving water hydrology
 - runoff and discharge constituents
 - pollutant concentrations and loads in receiving waters
 - aquatic habitat quality and the integrity of aquatic biota

Mr. Park
January 18, 2006
Page 3

Where TMDLs are already established they include pollutant load allocations for the surrounding lands and point source discharges. In these cases, we suggest that the submittal specify how the proposed project would contribute to achieving the applicable load reductions.

Where TMDLs are yet to be established and implemented, a first step in achieving TMDL objectives is to prevent any project-related increases in pollutant loads. This is generally accomplished through the proper application of suitable best management practices in all phases of the project and adherence to any applicable ordinances, standards, and permit conditions. In these cases we suggest that the submittal specify how the proposed project would contribute to reducing the polluted discharge and runoff entering the receiving waters, including plans for additional pollutant load reduction practices in future management of the surrounding lands and drainage/discharge systems.

Proposed Action and Alternatives Considered

We suggest that each submittal identify and analyze potential project impacts at a watershed scale by considering the potential contribution of the proposed project to cumulative, multi-project watershed effects on hydrology, water quality, and aquatic and riparian ecosystems.

We also suggest that each submittal broadly evaluate project alternatives by identifying more than one engineering solution for proposed projects. In particular, we suggest the consideration of "alternative," "soft," and "green" engineering solutions for channel modifications that would provide a more environmentally friendly and aesthetically pleasing channel environment and minimize the destruction of natural landscapes.

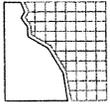
If there are any questions about these comments please contact Jiakai Liu with the Environmental Planning Office at 586-4346.

Sincerely,



HAROLD LAO, ACTING MANAGER
Environmental Planning Office

c: EPO



GERALD PARK
Urban Planner

■ Planning
Land Use
Research
Environmental
Studies

■ 1221 Kapiolani Blvd.
Suite 211
Honolulu, Hawaii
96814

■ Telephone:
(808) 596-7484
Facsimile:
(808) 596-7485
e-mail:
geraldpark@aol.com

June 21, 2006

Harold Lao, Acting Manager
Environmental Planning Office
Department of Health
State of Hawaii
PO Box 3378
Honolulu, Hawaii 96801-3378

Dear Mr. Lao:

Subject: Waiāhole Beach Park Master Plan
Waiāhole-Waikāne, Kōloaupoko District, Oahu

Thank you for reviewing the draft environmental assessment prepared for the subject project. We offer the following response to your comments in the order they were presented.

Waterbody type and class

1. Potentially affected waters include Waiāhole and Waikāne Streams (Class 2 waters), Kaneohe Bay (Class AA waters), and the Pacific Ocean (Class A waters).

Existing water quality management actions

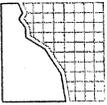
2. NPDES Permit HIS000002 CCH MSA was issued to the City and County of Honolulu on March 1 with an effective date of March 31, 2006.
3. There are no planning documents and projects associated with the master plan that contain prescriptions for water quality management at the project site.

Pending water quality management actions

4. Waiāhole Stream is listed as an impaired water body in the current *List of Impaired Waters in Hawaii Prepared Under Clean Water Act § 303 (d)*.

5. Potential impacts on hydrology, water quality, and aquatic and riparian resources were considered in the Draft Environmental Assessment. However, the assessment was limited to potential impacts resulting from implementation of the Waiāhole Beach Park Master Plan and not analyzing impacts at a watershed scale.

The park is located at the very bottom of the watershed. The proposed wetland development on the south side of Waiāhole Stream is intended to restore functions lost by extensive filling and development on coastal wetlands over the past century all along the windward coast. The proposed wetland would be designed to receive flow from Waiāhole Stream during normal and freshet flows up to a certain maximum, allowing this water to be cleaned (sediment and nutrient removal, primarily) by the wetland before entering Kaneohe Bay. Although Waiāhole watershed is not as heavily developed as watersheds further south along the coast fronting Kaneohe Bay, this opportunity to restore coastal wetland functions is



Harold Lao
June 21, 2006
Page 2

probably unique. Only nearby Waikāne Stream and perhaps Heeia (DHHL) have a coastal wetland under any kind of government control; all other watersheds draining into Kaneohe Bay have long been developed and are now in the hands of private landholders.

Proposed Action and Alternatives Considered

Stream modification is not proposed as part of the Waiāhole Beach Park Master Plan but is part of the wetland concept plan.

We thank the Environmental Planning Office for participating in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: T. Hildebrand, DDC

APPENDIX B

TECHNICAL REPORTS

TECHNICAL REPORTS

Note: The Technical Reports listed below have not been printed for the Final Environmental Assessment. They can be reviewed and printed from the attached CD.

- A. Wetland Resources Inventory for City and County of Honolulu Coastal Parcels Waiahole-Waikane Park, O'ahu. AECOS, Inc. August 2000. AECOS No. 824B
- B. Wetland Resources Inventory for City and County of Honolulu Coastal Parcels Waiahole-Waikane Park, O'ahu. AECOS, Inc. September 2001. AECOS No. 824C
- C. Concept Plan Waiahole Stream Wetlands Creation and Enhancement.
- D. A Hawaiian Traditional and Cultural Practices Assessment for the Proposed Waiāhole Beach Park, Ahupua'a of Waiāhole and Waikāne, Ko'olaupoko, O'ahu. (TMK: 4-8-01). Volume I. Cultural Surveys Hawaii, Revised May 2002.
- E. An Archaeological Inventory Survey of an Approximately 21-acre Parcel at Coastal Waiāhole, Ahupua'a Ko'olaupoko District, Oahu. (TMK: 4-8-02: 1,2, 4-12). Cultural Surveys Hawaii, November 2002.
- F. Archaeological Inventory Survey of an Approximately 9-Acre Parcel in Coastal Waiāhole Ahupua'a, Ko'olaupoko District, Island of O'ahu. Cultural Surveys Hawaii, May 2005.
- G. Final Report Phase I Environmental Site Assessment and Limited Soil Sampling Waiahole Beach Park. The Environmental Company, Inc. January 2003.
- H. Waiahole Beach Park Traffic Assessment. Julian Ng. Incorporated. September 2002.

