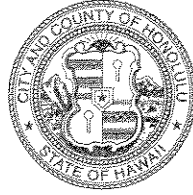


DEPARTMENT OF PLANNING AND PERMITTING  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET, 7<sup>TH</sup> FLOOR • HONOLULU, HAWAII 96813  
TELEPHONE: (808) 523-4432 • FAX: (808) 527-6743  
DEPT. INTERNET: www.honolulu.dpp.org • INTERNET: www.honolulu.gov



MUFI HANNEMANN  
MAYOR

HENRY ENG, FAICP  
DIRECTOR

DAVID K. TANOUÉ  
DEPUTY DIRECTOR

2005/ED-3 (TH)

September 27, 2005

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

OFFICE OF ENVIRONMENTAL  
QUALITY CONTROL

SEP 28 9:06

RECEIVED

Dear Ms. Salmonson:

Re: Final Environmental Assessment (FEA) and  
Finding of No Significant Impact (FONSI) for  
Hawaiian Waters Adventure Park Master Plan Update  
Tax Map Key: 9-1-016: 009, Ewa, Hawaii

The Department of Planning and Permitting (DPP) has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the **October 8, 2005** OEQC Environmental Notice. The DPP has reviewed the comments received during the 30-day public comment period, which began on April 8, 2005.

We have enclosed a completed OEQC Publication Form, four copies of the FEA, and the project summary. Should you have any questions, please contact Tim Hata of our staff at 527-6070.

Very truly yours,

A handwritten signature in black ink, appearing to read "Henry Eng", written over a horizontal line.

Henry Eng, FAICP, Director  
Department of Planning and Permitting

HE:js

Enclosures

p:\DivFunction\ea-eis\2005\HWAP\foniltr

2005-10-08 OA FONSI HAWAIIAN WATERS ADVENTURE PARK  
MASTER PLAN UPDATE

OCT - 8 2005  
**FILE COPY**

*FINAL ENVIRONMENTAL ASSESSMENT for*

---

***Hawaiian Waters Adventure Park***

***Master Plan Update***

***Tax Map Key No. 9-1-016:009***

Submitted Pursuant to Chapter 343, Hawaii Revised Statutes (HRS)

Prepared for:

Hawaiian Waters Adventure Park  
400 Farrington Highway  
Kapolei, Hawaii 96707

Prepared by:

Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

and

Lester Inouye & Associates, Inc.  
90 Kawanakoa Place  
Honolulu, Hawaii 96817

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QUALITY CONTROL

05 SEP 28 09:07

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September 2005

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HAWAIIAN WATERS ADVENTURE PARK  
MASTER PLAN UPDATE  
KAPOLEI, OAHU, HAWAII

'05 SEP 22 P4:19

DEPT OF PLANNING  
AND PERMITTING  
CITY & COUNTY OF HONOLULU

FINAL ENVIRONMENTAL ASSESSMENT  
TAX MAP KEY NO. 9-1-016:009

APPLICANT:

Hawaiian Waters Adventure Park  
Kapolei, Hawaii

CONSULTANTS:

Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

Lester Inouye & Associates, Inc.  
90 Kawanankoa Place  
Honolulu, Hawaii 96817

APPROVING  
AUTHORITY:

Department of Planning and Permitting  
City and County of Honolulu

CLASS OF  
ACTION:

Change in Zone Request per Land Use Ordinance  
City and County of Honolulu

This document is prepared pursuant to:  
the Hawaii Environmental Policy Act,  
Chapter 343, Hawaii Revised Statutes (HRS), and  
Title 11, Chapter 200, Hawaii Department of Health Administrative Rules (HAR).

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## **EXECUTIVE SUMMARY**

Since it opened for business in 1999, Hawaiian Waters Adventure Park (HWAP) has been operating under an approved Conditional Use Permit (CUP No.93/CUP1-35) Type 1 as an outdoor recreational facility on land in the General Agriculture (Ag-2) zoning district as defined by the City and County of Honolulu Land Use Ordinance (LUO). HWAP has updated its Master Plan and plans to introduce attractions that would redefine the waterpark as an outdoor amusement facility in the long term. Thus, HWAP is requesting a change in zoning district from General Agriculture (Ag-2) to Community Business (B-2).

The waterpark serves local Honolulu residents and consists of a series of man-made non-mechanical waterslides, rivers and pools grouped together in a landscaped park setting. The intent of the HWAP has been to enhance the choices of existing recreational activities on the island of Oahu by providing needed water recreation in a supervised and controlled environment. The proposed improvements will provide a wide variety of activities that would be enjoyed by different age groups.

Prior to implementing the proposed master planned updates, HWAP will need to secure three major approvals from the Department of Planning and Permitting (DPP) as an "outdoor amusement facility." Applications for these three approvals will be submitted after the Environmental Assessment has been completed.

First, HWAP will submit a State Land Use (SLU) District Boundary Amendment (less than 15 acres) in accordance with Chapter 26 Revised Ordinances of Honolulu (ROH). The SLU District Boundary Amendment is needed to reclassify approximately 112,000 square feet (2.5 acres) of land within the project site from the Agricultural district to the Urban district to be consistent with the remainder of the project site, which is currently in the State Urban district.

Second, HWAP will submit a zone change application to the DPP in accordance with Chapter 21, ROH. HWAP would rezone the entire 30-acre facility from AG-2 General Agricultural District to B-2 Community Business District. Approval of the zone change will permit HWAP to operate as an outdoor amusement facility.

Third, HWAP will submit an application for a Conditional Use Permit (CUP)-Major in accordance with Chapter 21 ROH. The CUP-Major is required to evaluate the proposed project's community-based impacts generally associated with amusement facilities such as noise and traffic.

In conjunction with the Change in Zone and related land use permit applications, an Environmental Assessment is being prepared as part of the project evaluation pursuant to Chapter 343, Hawaii Revised Statutes (HRS), Hawaii Environmental Policy Act (HEPA). Because the land use change request is within the jurisdiction of the City and County of Honolulu's Department of Planning and Permitting (DPP), the approving authority of the Environmental Assessment is DPP.

The property has historically been used for sugarcane cultivation and mining, and sugarcane cultivation in the area ceased in the mid 1990s. A majority of the project site is currently developed as the waterpark. The proposed improvements to the existing waterpark will require minimal site preparation involving vegetation clearing, excavation, filling, grading, general construction, and planting and landscaping. The property has been modified overtime, and no adverse impacts are anticipated.

No known endangered/threatened flora or fauna exist on site. The majority of the property is developed as the waterpark, and most additions to the waterpark will be occurring within the developed portion. The proposed improvements in the undeveloped 5-acre area will incorporate tropical landscape with indigenous plant materials to blend in with the developed areas of the waterpark.

Pursuant to requirements of Chapter 343, HRS, the Pre-Assessment phase was conducted in September 2004, and availability of the Draft Environmental Assessment (DEA) was announced in the Office of Environmental Quality Control Environmental Notice for a 30-day agency/public review period on April 8, 2005. The DEA reflects the efforts made to determine whether the project would have any potentially significant environmental impacts. Following the official public review by governmental agencies and other interested organizations, DPP has determined that a Finding of No Significant Impact (FONSI) is in order.



## **SUMMARY INFORMATION**

### **CHAPTER 343, HAWAII REVISED STATUTES (HRS) FINAL ENVIRONMENTAL ASSESSMENT**

**Project:** Hawaiian Waters Adventure Park Master Plan and Update

**Applicant:** Hawaiian Waters Adventure Park  
400 Farrington Highway  
Kapolei, Hawaii 96707

**Approving Agency:** City and County of Honolulu  
Department of Planning and Permitting  
650 South King Street  
Honolulu, Hawaii 96813

**Prepared by:** Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

**Anticipated Determination:** Finding of No Significant Impact (FONSI)

**Project Description:** The project site is the 25-acre waterpark developed in 1998 under an approved Conditional Use Permit Type 1 permit for outdoor recreational uses on Ag-2 land plus 5 acres of former quarry land in the northeast corner of the parcel. Proposed improvements include outdoor amusement activities which necessitate a change in zone to the B-2 zoning district.

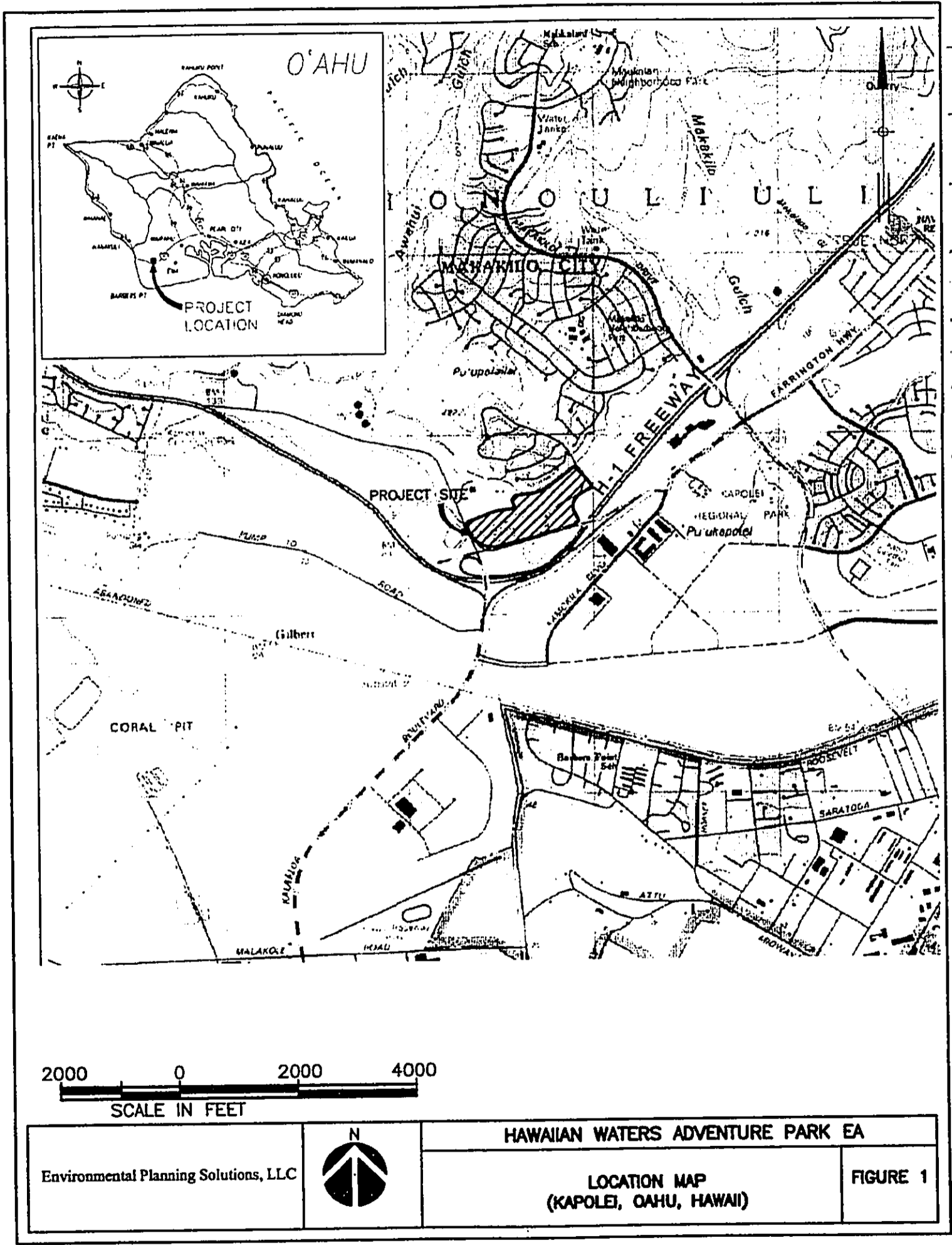
**Project Location:** Kapolei, Oahu, Hawaii. (See Figure 1)

**Tax Map Key:** 9-1-016:009  
**Size of Parcel:** 30.268 acres

**State Land Use Commission Designation:** Urban with an 112,000 s.f. portion Agricultural

**Development Plan Land Use Map:** High Density Residential and Commercial

**County (LUO) Zoning Designation:** General Agriculture (Ag-2)



2000 0 2000 4000  
SCALE IN FEET

Environmental Planning Solutions, LLC



HAWAIIAN WATERS ADVENTURE PARK EA

LOCATION MAP  
(KAPOLEI, OAHU, HAWAII)

FIGURE 1

## 1. INTRODUCTION

### 1.1 Project Summary

The project site is located off Farrington Highway in Kapolei, Oahu, Hawai'i (Figure 1). The Property is a 30.268-acre parcel consisting of a 25-acre park known as "Hawaiian Waters Adventure Park" (HWAP) including an adjacent parking lot and a 5-acre vacant area in the northeast corner reserved for future expansion (Figure 2). The waterpark was constructed in 1998/1999 and consists of 11 water slides, two restaurants, two stages, a volleyball court, an arcade and several shaded picnic areas. The existing 25-acre waterpark site is in the City and County of Honolulu General Agriculture ("Ag-2") zoning district and the State of Hawaii "Urban District" and "Agriculture" land use designation. The waterpark is currently categorized as an outdoor recreational facility per the City and County of Honolulu Land Use Ordinance (LUO), and the restaurants are an allowed accessory use under the current permit 93/CUP-1-35.

The proposed Master Plan Update describes, defines and evaluates the expansion of the existing waterpark to better utilize the existing resources within its property. The proposed expansion includes three (3) additional water slides, miniature golf course, and other attractions to add variety to the existing recreational waterpark facility. With the proposed expansion, the HWAP will be categorized as an "outdoor amusement facility", and thus requires a zone change to an appropriate commercial zoning district of Community Business (B-2).

### 1.2 Statement of Purpose and Environmental Assessment Process

The originally approved Conditional Use Permit (CUP No.93/CUP1-35) enabled the original development of the HWAP as an outdoor recreational land use. The Ewa Development Plan Land Use Map defines the site as an urban land use; however, the City and County of Honolulu LUO defines the site as in the General Agriculture (AG-2) zoning district. Outdoor amusement facilities are not identified as an allowed use within land in the agricultural zoning district. The HWAP will need to obtain zone change approval for the proposed action as an outdoor amusement facility.

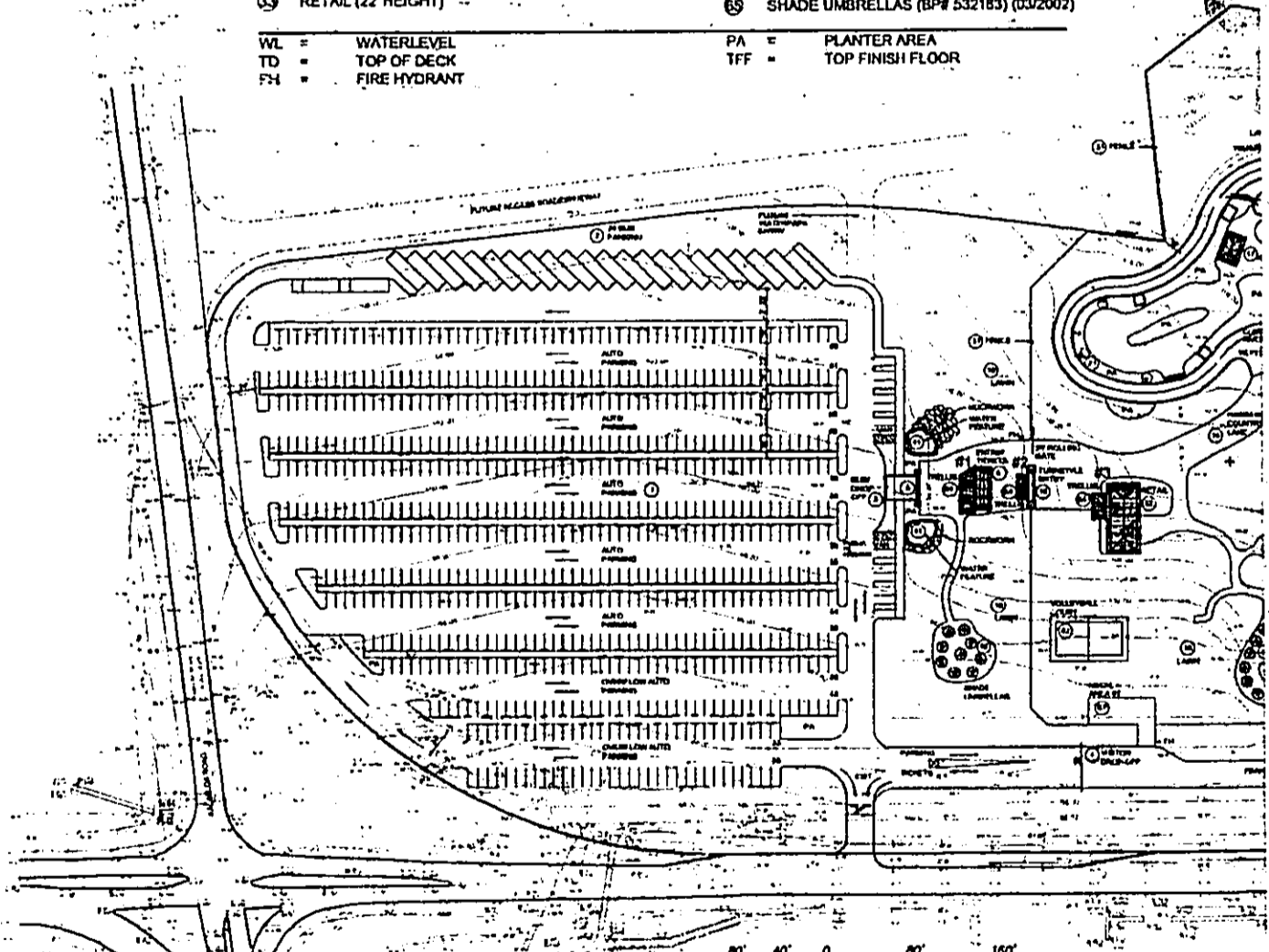
Also, a 112,000 square feet portion within the waterpark's existing parking lot is in the State Land Use Commission (SLUC) Agricultural district. Accordingly, this portion of land will require a State Land Use District Boundary Amendment from Agricultural to Urban to be consistent with the majority of the 30-acre site. An SLUC Boundary Amendment request pursuant to Revised Ordinances of Honolulu (ROH) Chapter 26, DPP Procedures for the Amendment of State Land Use Boundaries, is prepared as part of this land use change process. A third land use permit, a Conditional Use Permit Major, is required for the proposed action to evaluate the project's community-based impacts generally associated with amusement facilities, such as noise and traffic.

**LEGEND**

- |   |  |
|---|--|
| ① VISITOR PARKING (731 SPACES, PLUS 14 HC)                            | ②7 FOOD COURT #1 (24' HEIGHT)  |
| ② BUS PARKING (24 TOTAL)  | ②8 RESTROOMS/CHANGING (24' HEIGHT)   |
| ③ BUS DROP-OFF AREA   | ②9 LOCKERS (14' HEIGHT)  |
| ④ VISITOR DROP-OFF AREA   | ③0 SHADE UMBRELLAS   |
| ⑤ ENTRANCE WITH SIGN  | ③1 WATER FEATURE   |
| ⑥ TICKET PLAZA (12' HEIGHT)   | ③2 SAND VOLLEYBALL COURT   |
| ⑪ TYPICAL LAWN AREA   | ③3 EXISTING ROCKFACE   |
| ⑪ ADMINISTRATION BUILDING   | ③4 SPEED SLIDE (18' HEIGHT)  |
| ⑫ STAFF PARKING   | ③5 BODY FLUMES (27' HEIGHT)  |
| ⑬ TWO WAY ACCESS  | ③6 TUBE FLUMES (27' HEIGHT)  |
| ⑭ SHADE STRUCTURES (10' HEIGHT)                                       | ③7 RECEIVING POOL  |
| ⑮ GROUP PICNIC AREA   | ③8 WAVE POOL   |
| ⑯ HAWAIIAN COUNTRY LANE THROUGH COCONUT GROVE                         | ③9 MECHANICAL BUILDING (22' HEIGHT)  |
| ⑰ VENDOR KIOSKS (11' HEIGHT)  | ④0 PERIMETER FENCE   |
| ⑱ GATEWAY SIGN  | ④1 'BEACH' DECK  |
| ⑲ TEEN ACTIVITY POOL (24' HEIGHT)                                     | ④2 STAGE   |
| ⑳ CONTINUOUS RIVER POOL   | ④3 FOOD COURT #2 AND RESTROOMS (24' HEIGHT)                                    |
| ㉑ GIANT POLYNESIAN STONE CARVINGS WITH INTER-ACTIVE WATER (8' HEIGHT) | ④4 CHILDREN'S ACTIVITY POOL/TOT'S POOL (12' HEIGHT)                            |
| ㉒ SECRET CAVE POOL PARTIALLY OPEN TO SKY WITH WATER CURTAIN           | ④5 MECHANICAL AREA   |
| ㉓ SWIM THROUGH LAVA TUBE  | ④6 STORAGE CONTAINERS  |
| ㉔ WATERFALL   | ④7 SHAKA (BP#508877, 2000)   |
| ㉕ HIDDEN MOUNTAIN POOL /ADULT POOL                                    | ④8 VOLCANO FEATURE (2002)  |
| ㉖ ARCADE  | ④9 VOLCANO EXPRESS SLIDE ADDITION (2002)                                       |
| ㉗ RAMP  | ⑤0 TRELLISES (BP#1- 523199, BP#2- 523200 BP#3- 523201, BP#4- 523202) (03/2002) |
| ㉘ RETAIL (22' HEIGHT)   | ⑤1 SHADE UMBRELLAS (BP# 532183) (03/2002)                                      |

- WL = WATERLEVEL  
 TD = TOP OF DECK  
 FH = FIRE HYDRANT

- PA = PLANTER AREA  
 TFF = TOP FINISH FLOOR



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 scale: 1" = 80'  
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AND PERMITTING  
CITY & COUNTY OF HONOLULU

TAX MAP KEY 9-1-16-09

GENERAL INFORMATION

SITE	=	30.26 ACRES
WATERPARK	=	9.84 ACRES
GUEST PARKING	=	6.29 ACRES
STAFF PARKING	=	.43 ACRES
PICNIC AREA	=	1.9 ACRES
LANDSCAPING, SERVICE AREA AND ACCESS ROADS	=	4.5 ACRES
(FUTURE EXPANSION-WATERPARK)	=	(7.3 ACRES)

BUILDING AREA

TOTAL SITE 30.26 AC (1,318,125 sf)

EXISTING (ORIGINAL 1999)

EXISTING BUILDINGS / TRELLISES	38,152 sf
EXISTING SLIDES / FOOTPRINT	12,301 sf
EXISTING WATER FEATURES / FOOTPRINT	2,055 sf
Total Existing	50,508 sf

ADDITIONAL (NEW 2000 - 2002)

ADDITION: BUILDING STRUCTURES	4,740 sf
ADDITION: SLIDE FOOTPRINTS	7,431 sf
Total Additional	12,171 sf

New Total 62,679 sf

Maximum lot coverage - 10% of 1,318,125 sf = 131,812 sf

62,679 sf < 131,812 sf

TOTAL LOT COVERAGE

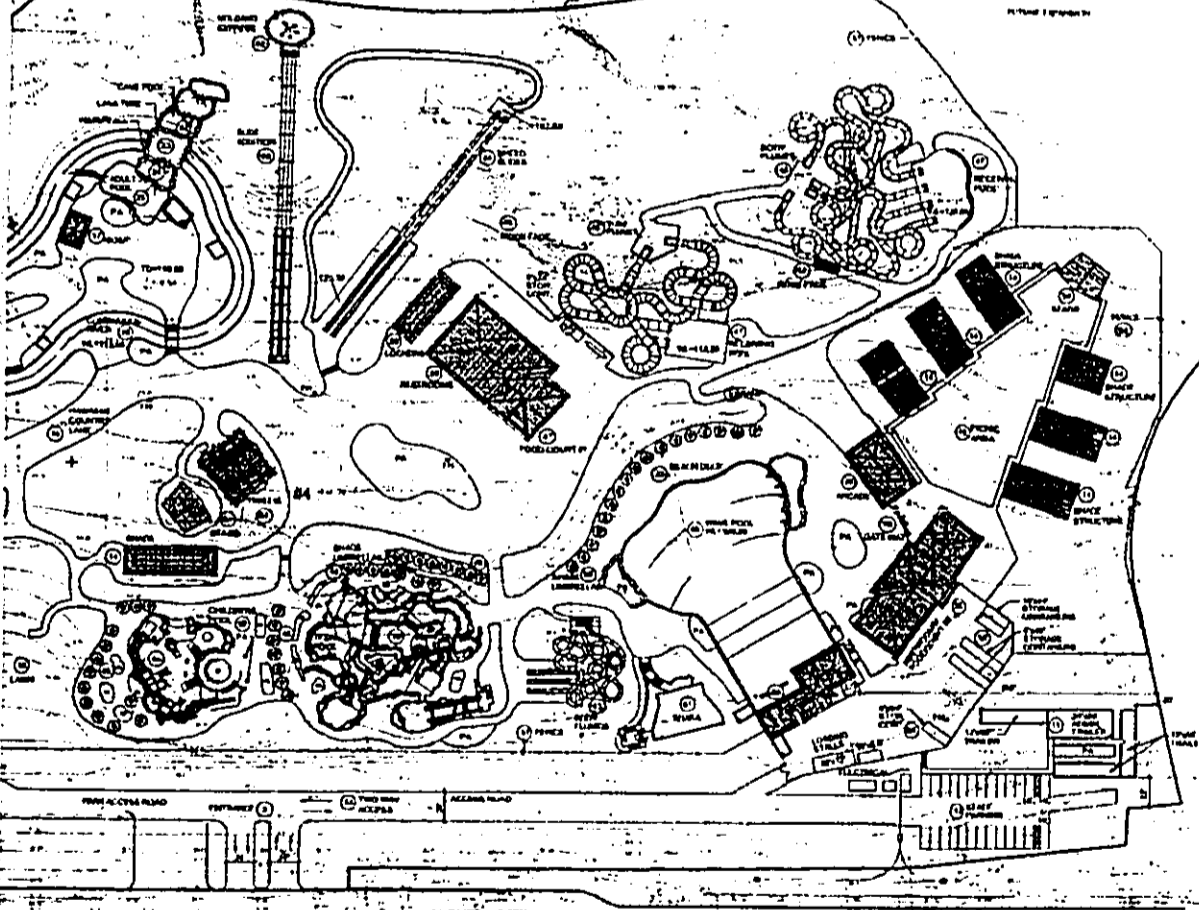
New total of 62,679 sf is approximately 48% of allowable building area.

62,679

AVAILABLE LOT COVERAGE


Building area available for future improvements

69,133 sf



**YR: 2002 SITE PLAN**

SCALE 1"=80'

Environmental Planning Solutions, LLC		HAWAIIAN WATERS ADVENTURE PARK EA
		VICINITY MAP (EXISTING SITE PLAN)
		FIGURE 2

In conjunction with the Change in Zone and related land use permit applications, an Environmental Assessment is being prepared as part of the project evaluation in compliance with Chapter 343, Hawaii Revised Statutes (HRS), Hawaii Environmental Policy Act (HEPA). This is considered to be a "significant" zone change within the Ewa Development Plan because the total project size involves converting 'more than five acres to a commercial zoning district' (DPP\permitlistings.htm Oct. 4, 2004 criteria). Because the land use change request is within the jurisdiction of the City and County of Honolulu's Department of Planning and Permitting (DPP), the approving authority of the Environmental Assessment is DPP.

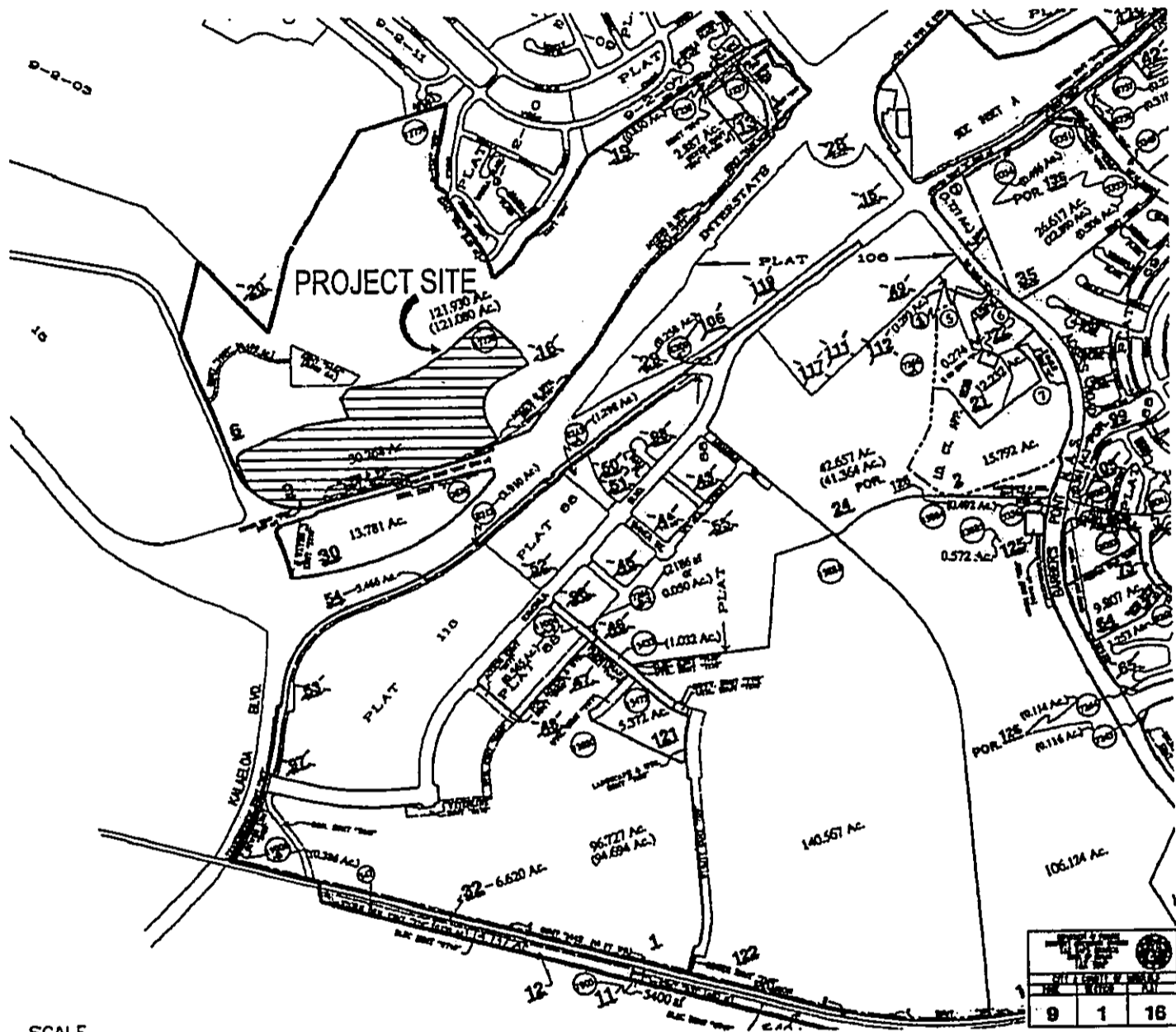
HEPA was enacted by the Hawaii State Legislature to require State and County agencies to consider the environmental impacts of various actions as part of the decision-making process. Agencies are required to conduct an investigation and evaluation of alternatives as part of the environmental impact analysis process, prior to making decisions that may impact the environment. The implementing regulations for HEPA are contained in Title 11, Chapter 200, Hawaii Administrative Rules (HAR).

This Environmental Assessment (EA) process is being conducted in accordance with HEPA. According to HEPA and its implementing regulations, a Draft EA is prepared to document environmental conditions and impacts, to develop mitigation measures whether or not an action has significant impacts upon the environment. Impacts are evaluated for significance according to thirteen specific criteria as presented in HAR 11-200-12. If no significant impacts are expected, then a Final EA with a Finding of No Significant Impact (FONSI) may be issued. If the Draft EA determines that significant impacts are present, then a Notice of Intent is prepared and the Final EA facilitates preparation of an Environmental Impact Statement (EIS).

The pre-assessment process was conducted in September, 2004. Responses received from agencies and organizations during this phase helped identify issues as the Draft Environmental Assessment (DEA) document was prepared. Following a public review period of the DEA from April 8 to May 7, 2005, DPP has determined that a Finding of No Significant Impact (FONSI) is in order for this project.

### 1.3 Ownership

Ownership history for the property was obtained from historical records maintained by the City and County of Honolulu Real Property Assessment Division (CCH RP AD). The property occupies approximately 30 acres of a parcel of land identified as TMK 9-1-016:009 (Figure 3). Real property records dating back to as early as the 1930s are kept at the CCH RPAD. The records indicate that the parcel containing the property was created in 1949 from parcel 9-1-016:004. The parcels were both owned by James Campbell Trust Estate and leased by Ewa Plantation Co. at that time. In 1962, the lease of the property (TMK 9-1-016-:009) was transferred to Oahu Sugar Co. Ltd. Property tax records dated 1987 indicate that a portion of the property is leased to GTE Hawaiian Tel. Co. Records indicate that the lease to Oahu Sugar Co. Ltd. expired in 1995.



NOT TO SCALE

Environmental Planning Solutions, LLC		<b>HAWAIIAN WATERS ADVENTURE PARK EA</b>	
		<b>TMK MAP KEY 9-1-016-009 (KAPOLEI, OAHU, HAWAII)</b>	<b>FIGURE 3</b>

## Hawaiian Waters Adventure Park

---

In August of 1998, the property was leased to the Hawaiian Waters Adventure Park (then called "The Waters of Kapolei, L.C.C."), who is the current lessee of the property. Property tax records indicate that the portion of the property utilized for mining purposes was leased to Pacific Concrete and Rock Co. Ltd. until December of 1978, but records do not indicate when the quarry first was established or when it was closed.

### 1.4 Background

The HWAP now operates under CUP No.93/CUP1-35, which was approved in 1993. The existing uses comply with the AG-2 General Agricultural District Development standards.

The existing waterpark consists of 11 water slides, two restaurants, two stages, a volleyball court, an arcade and several shaded picnic areas. Pool cleaning systems and trailers used as administrative offices are also present on the property. Ground cover in the park area of the property consists of concrete pathways and landscaped areas.

About 5 acres in the northeastern portion of the property is currently undeveloped. This portion of the property lies within the boundaries of the old quarry. The proposed zone change will allow HWAP to develop the area to expand the existing waterpark.

### 1.5 Need for Proposed Action

When the original master plan was prepared, the feasibility study estimated 550,000 guests a year by 2003. The actual attendance for 2003 was 293,000 guests. Most of the additional improvements are proposed within the developed portion of the waterpark to better utilize the existing resources.

The original phase of the waterpark was constructed as an outdoor recreational waterpark facility now known as Hawaiian Waters Adventure Park (HWAP). Through recently approved minor modifications (2004/ELOG-2725, December 28, 2004 and 93/CUP-35) a new water ride known as "FlowRider" will be added during the subject Change in Zone request process.

The waterpark facility serves local Honolulu residents of all age groups and consists of a series of man-made non-mechanical waterslides, rivers and pools grouped together in a landscaped park setting. The intent of the HWAP has been to enhance the existing recreation facilities on the island of Oahu by providing needed water recreation in a supervised and controlled environment. The proposed new improvements will provide a wide variety of activities that would be enjoyed by different age groups.

The proposed improvements to the existing park will add more building areas and introduce new attractions such as a miniature golf course. The HWAP will be considered as "outdoor amusement facility", which is not permitted in the AG-2 zoning district. "Outdoor amusement facility" is permitted in the commercial zoning districts with a



## Hawaiian Waters Adventure Park

Major Conditional Use Permit (CUP). Therefore, the proposed action requires a zone change from the AG-2 to B-2 Community Business District.

### 1.6 Description of Property

The waterpark is located in Kapolei, Oahu, Hawaii at the intersection of Farrington Highway, Old Farrington Highway, and the H-1 Freeway. The property consists of a parcel of land identified as TMK number (1) 9-1-016:009 (Figure 3). The property encompasses approximately 30.3 acres of land and contains the Hawaiian Waters Adventure Park. The topography of the area is sloping from north to south, with an average elevation of approximately 128 feet above mean sea level on the property.

Entrance to the property is from the south off Farrington Highway. A chain-link fence encloses the portion of the property that contains the 25-acre adventure park.

About 5 acres in the northeastern portion of the property is currently undeveloped. This portion of the property lies within the boundaries of the old quarry. Steep rock faces surrounds the outcrop to the north.

The existing Waterpark facility includes:

- a. A man-made wave pool, which produces waves for boogie boards, inner tubes, floats, and swimming. It creates ocean-like experiences without the aggravations of salt water, vegetation, sea creatures, pollution, and dangerous tides and surf;
- b. A winding, quarter-mile-long "river" that lazily propels inflatable tubes and rafts and transport visitors past all park activities;
- c. A variety of non-mechanical serpentine waterslides, which replicate the excitement of raging wild rivers through twists, turns, drops, and spirals, enabling participants to experience surging, splashing whitewater rafting excitement;
- d. Several non-mechanical speed and tube waterslides with straightaways and multiple hump drops which offer participants an element of daring and competition;
- e. Shallow water playgrounds that provide entertainment for young children in a safe atmosphere;

The waterpark also offers shaded areas for guests, a picnic area, volleyball court, a catering kitchen, food and beverage facilities, locker room, shower and restroom facilities, gift shop, video game room, and first-aid station. The gift shop and video arcade are accessory uses to be utilized by customers of the waterpark. Customers will be able to purchase suntan lotion, bathing suits, beach towels and other products related to and for their convenience when visiting the waterpark. Other existing structure

## Hawaiian Waters Adventure Park

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includes a building for guest relations, group sales, cash control, security office, men/women changing area, administrative buildings, storage warehouse, arcade, inner-tube rental kiosk, and food stand. Current eateries serve park visitors only; HWAP plans to open its restaurants to both its visitors as well as the public in the future if the park is converted to an "outdoor amusement facility" under the B-2 Community Business zoning district.

The waterpark includes approximately 7.4 acre landscaped guest parking area designed for 783 vehicles, plus bus parking and a customer drop-off area. An additional 100 parking spaces are located behind the administrative building for staff parking. The parking, waterslides, pools, shaded rest areas, and accessory service facilities have been designed with capacity for 2,500 waterpark customers a day. The park has had 6,200 customers with no adverse situations or complaints from the neighboring public.

### 1.7 Surrounding Land Uses

The waterpark has been in operation since 2003 and is covered with lush tropical landscape. In years past before the waterpark was developed, the site was used as a rock and gravel quarry. All neighboring land is currently vacant and unused except along the northern border of the site, where a teleport for satellite reception is located. The property is bordered to the northwest by a satellite farm, to the north and east by an old landfill and a landfill-access road, to the northeast by the residential area of Makakilo, to the south by Farrington Highway and to the west by Kalaeloa Road. The H-1 Freeway runs parallel to Farrington Highway south of the property. A commercial area is present across the H-1 Freeway to the south. Former Barbers Point Naval Air Station is present further south of the property.

## 2 DESCRIPTION OF PROJECT

### 2.1 Project Goals and Objectives

The HWAP is currently operating as an outdoor recreational facility. The waterpark is set in a lushly landscaped, tropical environment consisting of a mix of water-related experiences for adults, children and families to enjoy.

HWAP's primary goal is to enhance recreational opportunities on the island of Oahu by providing a variety of activities and water recreation in a supervised and controlled environment. It aims to appeal to more Honolulu residents with some visitor participation anticipated. The proposed addition to the existing waterpark is key to attracting more residents as it will add more variety of activities for different age groups to enjoy throughout the year.

HWAP does not intend to alter the current operating hours. It will continue to be open to the public during the following times of each year:

#### Summer Schedule

May 15 to September 15 -Daily -Seven days per week.

#### Winter Schedule

September 16 to May 14 -All weekends, holidays, and during public school vacations and holidays.

During the summer time, operating hours will be from 10 a.m. to 10 p.m. and during the winter time from 9:30 a.m. to sunset.

All general and minimum development standards of the Land Use Ordinance will be met by the HWAP.

### 2.2 Need for Project

When the original master plan was prepared, the feasibility study estimated 550,000 guests a year by 2003. The actual attendance for 2003 was 293,000, and for 2004 was 320,000 guests. The HWAP's primary appeal is to Honolulu residents with some visitor participation anticipated. The proposed new attractions may result in a small increase the number of the park's annual visitors, but it is unlikely that the annual attendance design capacity of 550,000 visitors would be achieved. In order to enhance recreational opportunity for the residents as well as guests to the island, the HWAP proposes to add a variety of recreational activities that can be enjoyed by different age groups.

The purpose of expanding the existing park is to better utilize the limited existing resources to enhance recreational opportunities. The proposed expansion includes a few additional water slides, a miniature golf course, and other attractions. The initial part of this expansion is to fill in currently under-used spaces within the already developed park

area. With the proposed expansion, HWAP will be considered an "outdoor amusement facility." New proposed park features will be operated by the same HWAP operators.

### **2.3 Key Elements of the Master Plan Update**

The project involves integrating the following new elements within the developed portion of the waterpark (Figure 4) (note: the drive-in theater, batting cage and go-cart lane which are noise generating attractions have been withdrawn since publication of the DEA):

**a. Miniature Golf**

The proposed Miniature Golf Course is to be located at the main park entrance by the parking area where the existing volleyball court and the open lawn area are. The proposed Miniature Golf Course will encompass approximately 23,000 square foot with water features and lush tropical landscape to coincide with the surrounding park environment. A landscape border will be created to separate the miniature golf areas from other water recreational uses.

**b. Flow Rider**

The "Flow Rider" has been located north (mauka) of the Children's (keiki) Pool. It shares water supplied for its neighboring "Lazy River", and the water will circulate through both rides. When the CUP was submitted, "Flow Rider" was included as one of the proposed attraction although it was not shown on the site plan. Flow Rider produces a man-made stationary wave flowing over a wave form that enables participants to ride a boogie board down the face of the man-made wave.

Note: Flow Rider was approved as a Minor Modification to CUP No. 93/CUP/1-35 on December 28, 2004 as it was determined consistent with the outdoor recreational activity definition of the other water rides at the park.

**c. Tube Slide**

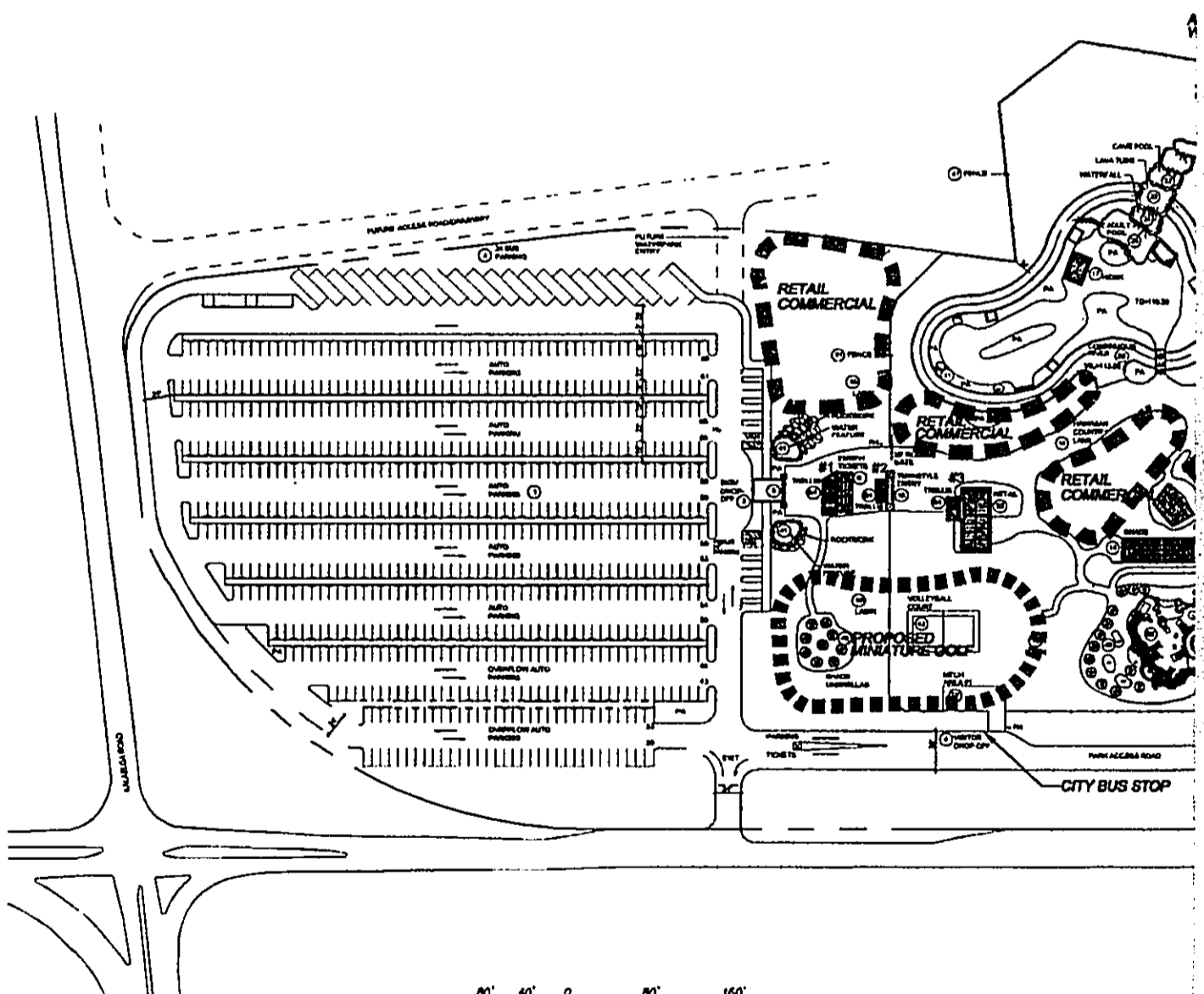
This is the addition of another tube slide next to the existing "Cliffhanger" tube slide. The height of the proposed slide will be the same as the Cliffhanger slide. This additional water slide will be designed to complement the existing slides.

**d. Bowl Body Sliding**

This is one of the future attractions that HWAP is planning. This future slide is to be located in the grass area near the existing retail store and "Kapolei River" pool. It will be approximately 30' radius and 12' high bowl shaped slide. A tube slide connecting to the bowl will be as high as 45' in elevation.

Future park improvements would be designed in conformance with standards established for the B-2 Community Business zoning district. As with the parcel (TMK no. 9-1-





80' 40' 0 80' 160'

SCALE IN FEET  
 scale: 1" = 80'  
 (use graphic scale if printed smaller than 24"x36" paper)

**KEY ELEMENTS OF I**



## Hawaiian Waters Adventure Park

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016:030) located south (makai) of the waterpark which was recently rezoned to the B-2 district, a 60-foot height limit should also apply to the waterpark as an outdoor amusement facility.

- New uses at the western end of the park will feature a low-rise complex of retail shops, a restaurant, and a membership sports courts and fitness center with tennis courts on the second and third floors. By placing the commercial-retail uses at the park entrance that would feature HWAP souvenirs and gifts, such attractions would create a more cohesive theme and atmosphere for park visitors. The restaurant would be on the second floor with a lanai balcony that would offer open air dining under the stars in the evening. Retail and commercial space would add approximately 33,500 square feet to the park.

The "Future Expansion" area on the Honolulu side of the site is planned to be developed with attractions including:

- a. New water attractions
- b. Additional parking area for buses and cars
- c. Amphitheater
- d. Service road which will continue to function as the fire lane traverses horizontally in an east-west direction through the middle of the waterpark. This accessway will be extended to the eastern "expansion area" and maintained according to the Fire Code.

The access road located on the Diamond Head end leading to the expansion area (labeled Feature 12 on the revised Master Plan, Figure 2) which is the park's existing fire lane will serve as a service driveway for future water rides and attractions in the expansion area. Road width would be approximately 16- to 18-feet. The mauka road identified as "Future Access Road/Driveway" on the original master plan was anticipating HWAP acquiring the land just mauka of the existing parking area. However, HWAP plans have changed since the park's initial construction and the revised master plan anticipates this to be used as a service access road in the long term.

### 2.4 Land Use Summary

The activities and uses proposed for updating the HWAP Master Plan consist of three major components: ground level activities, above grade activities, and ancillary uses.

Ground Level Activities include flow rider and miniature golf course.

All above grade activities, such as waterslides and water flumes, are not mechanized and rely upon gravity. Vertical water slides will take advantage of the existing topography.



## Hawaiian Waters Adventure Park

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Ancillary uses such as membership fitness/wellness center, and retail will be located near the ews entrance of the park. The amphitheater will be located within the future expansion area near the Diamond Head end of the park.

All of the above uses comply with the LUO definition of Recreation/Amusement Facilities – Outdoor. All proposed and future improvements will be designed in accordance with the B-2 Community Business zoning district height limit of 60 feet and setback requirements. As with current water rides and activity areas, future improvements will be surrounded with lush tropical landscape to continue the existing water park ambiance and environment

### 2.5 Infrastructure Improvements

A Traffic Impact Analysis Report was prepared by Julian Ng, Incorporated for the project master plan update.

Revisions to the park's master plan will increase traffic volumes to and from the park. However, due to the hours of operation of the park, significant impacts to traffic volumes in the area will not occur during peak hours for other traffic. The original waterpark was designed to accommodate up to 550,000 guests annually, and the anticipated increase in traffic due to this project is not expected to exceed this originally projected number of annual guests.

Electrical and civil engineers were consulted to determine the impacts of the proposed and future attractions to ensure the property will have enough resources to support fore-mentioned improvements. According to HWAP's civil engineering consultant the park's 12-inch sewer line was designed for a typical retail/commercial operation with an assumed facility average usage of 150,000 gallons per day. Currently, wastewater peak flow is averaging approximately 55,000 gallons per day. Thus, the additional improvements proposed at HWAP would not necessitate any change to the park's existing sewer line because the line is sized to accommodate an optimally operating retail/commercial operation.

According to the Board of Water Supply (BWS, October 2004) the waterpark's current water allocation is 75,000 gallons per day (gpd). In connection with its recent building permit request for the park's newly approved Flowrider attraction (2004/ELOG-2725, December 28, 2004), HWAP purchased an additional 36,500 gpd allocation from the Estate of James Campbell, as required by BWS. Thus the total waterpark allocation is now at 111,500 gpd. HWAP's need for additional water allocation will be evaluated as construction drawings for specific facilities are designed and reviewed in coordination with BWS.

### 2.6 Design Guidelines

The existing waterpark has been designed for a projected 550,000 annual visitors in 1998 which translates to approximately 4,000 persons per day. The proposed facility expansion plans would place the park in the "outdoor amusement facility" zoning district which would be governed by a 60-foot height limit. While new park features such as miniature golf and sports and fitness center may attract more visitors over time, the overall increase is not expected to have a significant effect on the average number of daily users to the point of reaching the park's original design capacity.

The proposed Miniature Golf Course is to be located near the main park entrance by the parking area for easy access. Along with the proposed retail shops and sports courts/fitness center, it is meant to add a variety of choices for the activities that park visitors can enjoy. It will attract those who may not be visiting the waterpark otherwise.

Additional water slides will be designed to complement the existing slides, and will not exceed the existing maximum height. Heights of structures associated with newly anticipated facilities will be designed to remain well below the 60-foot height limit. Thus, existing mauka-makai views would not be adversely affected by the park's added features. All new attractions will be surrounded with lush tropical landscape to match the surrounding park environment. Any changes to the existing parking area will be designed to be in conformance with Land Use Ordinance (LUO) requirements. Sustainable building guidelines will be considered in the planning of future park facilities.

### 2.7 Phasing and Timing of Action

Implementation of the Master Plan will commence in sections or portions upon receipt of necessary permits and pending availability of funding. The entire park Master Plan is planned and designed in two stages:

#### Stage 1: Proposed Development

Phase 1: Flow Rider

Phase 2: Miniature Golf Course

Development of the Phase 1 has been completed and Phase 2 will commence upon receipt of necessary permits. Phase 2 is expected to take 6 to 8 months to complete.

#### Stage 2: Future Development

Future Development will include a restaurant and retail shops, sports and fitness center, and miscellaneous improvements in Future Expansion area.

**Hawaiian Waters Adventure Park**

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Development of this is subject to change due to availability of the funding and future economic condition and marketability of the waterpark.

**2.8 Approximate Project Costs**

Cost of the proposed improvements to the park is estimated at approximately \$10.5 million. The improved and expanded park will retain the lush tropical character of the existing waterpark and provide increased recreational amenities, which will enhance the quality of the recreational environment in Kapolei.

### **3 CONSISTENCY WITH PUBLIC POLICIES, PLANS AND REGULATIONS**

#### **3.1 Chapter 343, HRS**

The majority of the site is presently designated as within the Urban district by the State Land Use Commission. Only narrow portion north of the existing parking area lies within the Agricultural District. The Ewa Development Plan Land Use Map indicates the site as within the urban growth boundary; however, the City and County of Honolulu Zoning District carries the site as General Agriculture (AG-2). Outdoor amusement facility is not identified as an allowed use within agricultural zoned lands. The HWAP will need to obtain zone change approvals for the proposed action as an outdoor amusement facility. This supporting Environmental Assessment is prepared in accordance with Hawaii Revised Statutes, Chapter 343, for the purpose of public disclosure and to assess potential impacts of the proposed action.

#### **3.2 City and County of Honolulu**

##### **3.2.1 City and County General Plan**

The 1992 edition of the General Plan is a statement of the long-range social, economic, environmental, and design objectives for the general welfare and prosperity of Oahu's citizens. These objectives contain both statements of desirable conditions to be sought over the long run and statements of desirable conditions which can be achieved within an approximate 20-year time horizon. The General Plan is also a statement of broad policies which facilitate the attainment of the objectives of the Plan. The following discussion provides an assessment of how the proposed project supports the objectives and policies for Physical Development and Urban Design in the General Plan.

**Objective C:** To develop a secondary urban center in Ewa with its nucleus in the Kapolei area. **Policy 2:** Encourage the development of a major residential, commercial, and employment center within the secondary urban center at Kapolei.

**Discussion:** The location and long term expansion of Hawaiian Waters Adventure Park as a commercial land use in Kapolei supports the social and economic growth of Kapolei as the secondary urban center. Continued growth and operations of the waterpark result in additional revenues to government in terms of labor, general and sales taxes thereby stimulating economic growth for the City and County of Honolulu. The park's expansion in types and numbers of attractions and improvements to its facilities would contribute to the social well being of Oahu residents and helps to expand recreational opportunities for all.

### 3.2.2 Ewa Development Plan (DP)

The City and County of Honolulu has adopted a development plan of the Ewa area that encompasses the region from Kahe Point to the west Loch of Pearl Harbor.

The vision for Ewa includes tremendous population growth to the year 2020 as the secondary urban center for Oahu. Population is projected to grow from 43,000 people in 1990 to almost 125,000 by 2020. Job growth is expected to be significant as well, from 17,000 jobs to over 64,000 in 2020.

The Urban Growth Boundary for Ewa was drawn to give long-range protection from urbanization for over 3,000 acres of prime agricultural land and for preservation of open space while providing adequate land for urban development in Ewa for the foreseeable future.

According to the Ewa Development Plan Urban Land Use Map, the project site will lie within the areas designated as City of Kapolei (High Density Residential and Commercial), which lies within the Urban Growth Boundary.

The City of Kapolei, according to the Ewa Development Plan, should serve as the urban core, or the downtown for the Secondary Urban Center. The Plan states that Kapolei should accommodate a major share of the new employment, with a balanced mix of business and residential areas, complemented by the recreational, social and cultural activities of a city. Mixed use should be permitted and encouraged throughout most of the City area, in order to achieve the diversity and intensity of uses that characterize a city.

Section 2.2.9 of the Ewa DP points out important historical and cultural resources, including important views that should be preserved and enhanced, one of which, Puu Palailai, is located northwest (mauka) of the waterpark.

**Discussion:** The HWAP's plan to expand its attractions is consistent with the Ewa Development Plan vision of population and job growth and diversification continuing to the year 2020 and beyond. The City's vision illustrates tremendous growth potential for Ewa's secondary urban center that would be supported by the waterpark's expansion and improvements as an outdoor amusement business.

With respect to views of significant landmarks such as Puu Palailai, structures associated with the waterpark's proposed improvements would not exceed the newly proposed height limit of 60 feet. Therefore, mauka-makai views of Puu Palailai would not be impacted by the addition of proposed retail shops, restaurant and wellness and fitness center which are envisioned as a two- to three-story low-rise complex.

### 3.2.3 Land Use Ordinance – Zoning

#### 3.2.3.1 Change in Zone from Ag-2 to B-2

The waterpark now operates under CUP No.93/CUP1-35, which was approved in 1993. The waterpark is currently categorized as “outdoor recreation facility”, and the existing uses comply with the AG-2 General Agricultural District Development standards (see Figure 5). However, the proposed expansion includes a miniature golf course, which is considered as an “outdoor amusement facility” per the LUO. Use as “outdoor amusement facility” requires Zone Change to B-2 Community Business District.

The intent of the B-2 community business district is to provide areas for community-wide business establishments, serving several neighborhoods. The intent is to apply this district to areas conveniently accessible by vehicular and pedestrian modes and served by adequate public facilities. Typically this district would be applied to lots along major streets and in centrally located areas in urban and urban fringe areas.

Proposed facilities such as miniature golf would place the waterpark in the community business district category. The existing 30-acre waterpark is consistent with the LUO’s B-2 zoning district standards in terms of accessibility to vehicular modes, served by adequate public facilities, and central location in Kapolei’s urban area. What necessitates the zone change from AG-2 General Agriculture to B-2 Community Business is the proposed expansion of the types of park attractions such as miniature golf that are conditionally allowed in the latter zoning district rather than under the park’s existing Ag-2 district. As stated earlier, proposed improvements would be designed to remain within the proposed height limit of 60 feet.

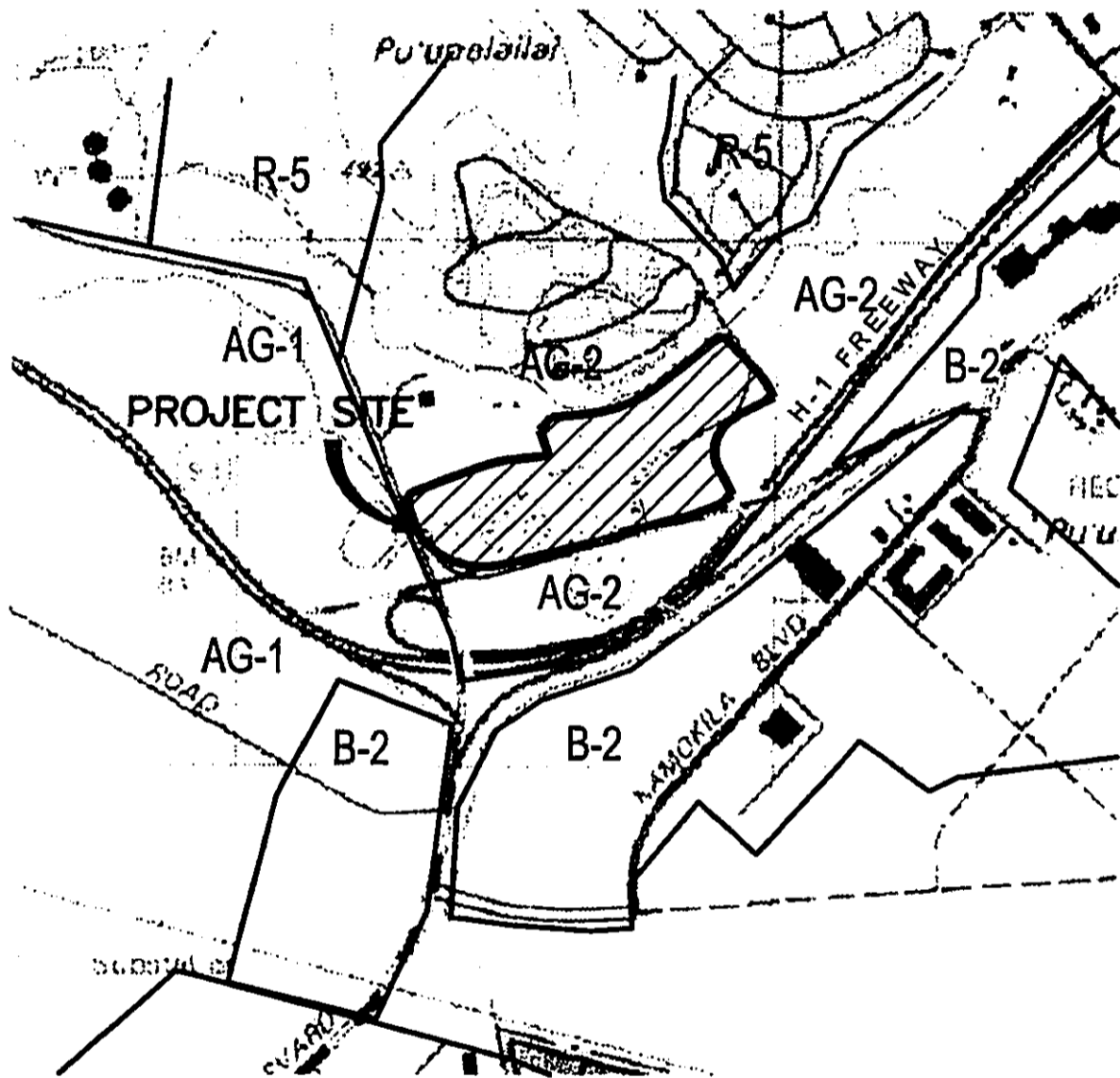
#### 3.2.3.2 Conditional Use Permit Major

As described in the previous section, the project would be classified as an “Outdoor amusement facility”, which is permitted in the B-2 Community Business District with a Conditional Use Permit (CUP) -Major.

### 3.3 State Land Use Commission Districts

#### 3.3.1 SLUC Boundary Amendment for <15 acres of Ag to Urban

The majority of the land is within the Urban District per the State Land Use Commission districts. Approximately 112,000 square feet of the land on the northern edge of the existing parking area is in Agricultural District (see Figure 6). The Draft EA originally identified this portion that is still in the Agricultural district as 800 square feet. Subsequently a check for accuracy determined that the actual size is 112,000 square feet. No proposed improvements will occur within the

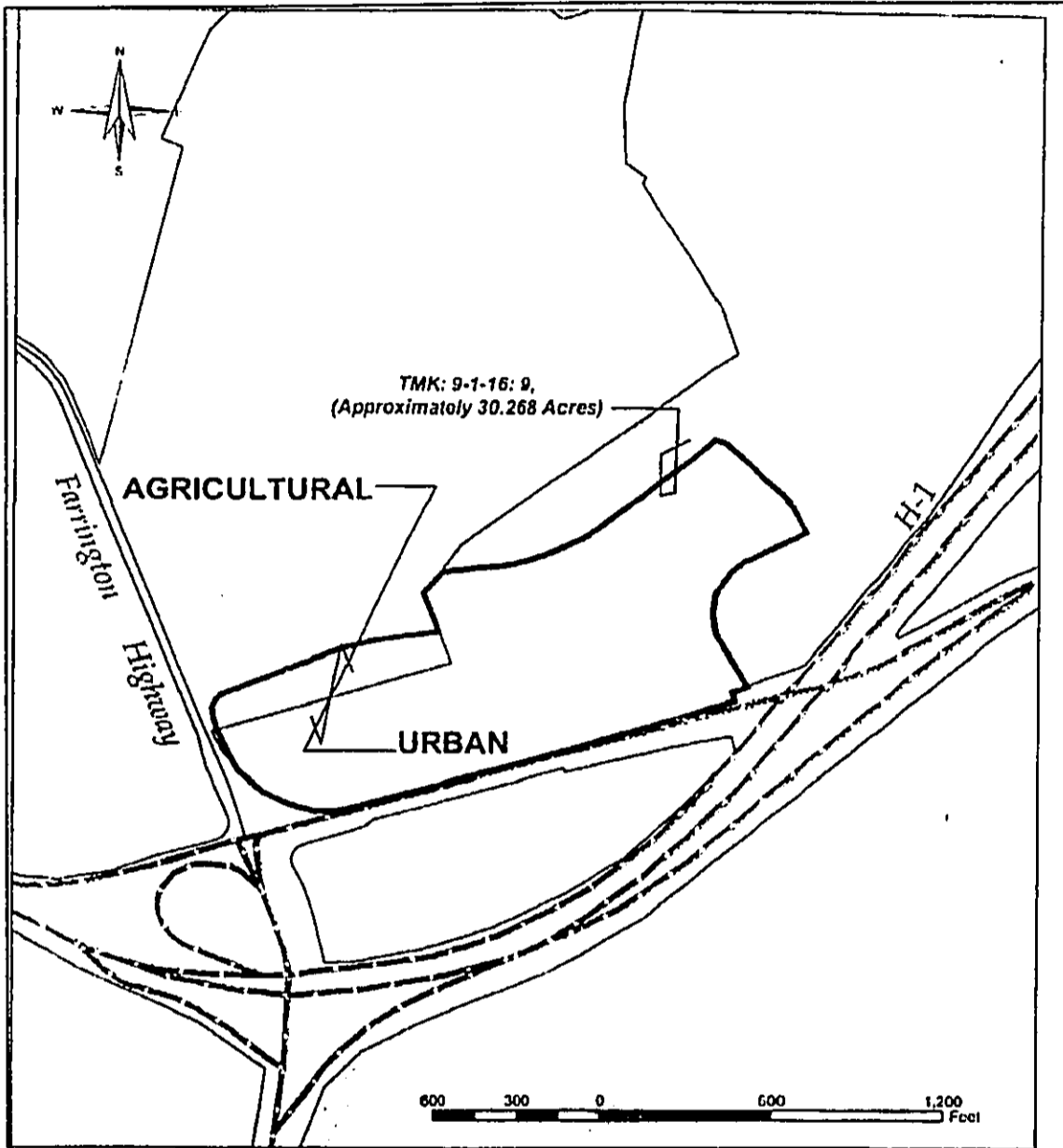


**ZONING KEY:**

- AG-1 Restricted Agriculture
- AG-2 General Agriculture
- B-2 Community Business
- R-5 Residential



Environmental Planning Solutions, LLC		HAWAIIAN WATERS ADVENTURE PARK EA	
		CITY & COUNTY OF HONOLULU ZONING MAP	FIGURE 5



BOUNDARY INTERPRETATION NO. 04-08

Tax Map Key: 9-1-16:9  
 Hawaiian Waters Adventure Park,  
 Honolulu, Oahu, Hawaii

The boundary as located, named and delineated is hereby certified as the actual Land Use District boundary adopted by the State Land Use Commission, Honolulu, Hawaii.

Date \_\_\_\_\_ by *Anthony H. King*  
 Executive Officer

SCALE: 1" = 600'

Environmental Planning Solutions, LLC		HAWAIIAN WATERS ADVENTURE PARK EA	
		BOUNDARY INTERPRETATION MAP	FIGURE 8



## Hawaiian Waters Adventure Park

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Agricultural District at this time; however, the HWAP will apply for a SLUC Boundary Amendment as the area is being used for parking and contains landscape treatment.

### 3.4 Other Required Permits and Approvals

#### State

- Department of Health (DOH)  
National Pollutant Discharge Elimination System (NPDES) for Construction Activities  $\geq$  1 acre

- Department of Transportation (DOT)  
According to a DOT letter dated December 29, 2004 (see Appendix C), required drainage improvements affecting the State right-of-way fronting the property are awaiting resolution. Coordination is being conducted between HWAP and the DOT to ensure that NPDES requirements are being met as of March 8, 2005.

#### City and County of Honolulu

- All infrastructure improvements, grading, and landscaping will be accomplished in accordance with City standards. As specific improvements are scheduled to be built within the park, building permits will be obtained by the contractor or architect.
- Department of Planning and Permitting (DPP)  
Change in Zone Request  
State Land Use Commission Boundary Amendment (Ag converting to Urban)  
Conditional Use Permit major

## **4 ASSESSMENT OF THE EXISTING NATURAL ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES**

### **4.1 Climate**

The project is located in the Ewa plain of the Island of Oahu. The prevailing winds throughout the year are the northeasterly trades, with occasional Kona winds. Trades are generally more persistent in summer than in winter. Kona winds will occur only a few days a year, usually during winter time. The average wind speed is approximately 12 miles per hour.

The climate in the region of Kapolei is warm and relatively dry. Rainfall varies from approximately 3 inches per month during the winter, to less than 1 inch per month during the summer. Mean annual rainfall at the property is approximately 19 inches. The average daily minimum and maximum temperature in January is 63°F and 81°F, and the average daily minimum and maximum temperature in August is 71°F and 89°F (WRCC, 2004).

### **4.2 Physical Characteristics**

The property is situated along the lower southeastern slope of the Waianae mountain range, off Farrington Highway. The property lies on the edge of the Ewa Plain, which was formed around 500,000 years ago during the Yarmouth interglacial period when sea level was 95 to 100 feet above present sea level (Stearns, 1935). It was during this time that extensive coral reefs were laid down creating the coral plain that makes up Ewa.

The majority of the project site is currently developed and used as the waterpark. The proposed addition to the existing waterpark will require minimal site preparation involving vegetation clearing, excavation, filling, grading, general construction, and planting and landscaping. Clearing and grubbing will be limited as the proposed attractions take advantage of the existing contour of the site.

About 5 acres in the northeastern portion of the property is currently undeveloped. This portion of the property lies within the boundaries of the old quarry. Steep rock faces surrounds the outcrop to the north. The ground cover consists of gravel, red soil and grasses. The proposed improvements in this undeveloped area will likely result in reduced erosion and better control and management of surface runoff during intense storm.

The property has been modified overtime, and no adverse impacts are anticipated.

### **4.3 Drainage**

According to the Flood Insurance Rate Map (FIRM), the project site is located in Zone D. The National Flood Insurance Program (NFIP) does not have any regulations for

## Hawaiian Waters Adventure Park

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development in this area. The property lies outside the 100- and 500-year flood zones (FEMA, 1990). A reservoir, labeled as a federal wetland, is located about 1/4 of a mile east of the property (EDR 2004).

The overall layout of the proposed addition to the waterpark will respond to the configuration and slope of the property and take into account drainage courses that occur within the project area. No adverse impacts are anticipated on surface water drainage.

### 4.4 Soils

The project site and the vicinity were previously mapped by the U.S. Department of Agriculture Soil Conservation Service as a part of an overall soil survey of the Hawaiian Islands. According to the Soil Survey, the area is primarily covered with EaB and rSY type soils.

The majority of soil in the vicinity of the property is classified as Ewa silty clay loam with a 3 to 6 percent slope (EaB). Ewa soils are well drained. Permeability is moderate and runoff is slow. Erosion hazard is slight. The western portion of the property is defined as stony steep land (rSY). This area has a steeper slope than the Ewa series type soils found on other portions on the property, and the ground cover consists of mostly stones and boulders with some soil providing foothold for plants and other vegetation in the area.

All proposed activities will occur in the areas that have been previously disturbed or cleared. Land preparation for the future expansion area is anticipated to involve limited clearing and grubbing since the area has already been cleared over time. Limited grading will take place to prepare the land for proposed facilities.

### 4.5 Agricultural Uses

Agriculture was a vital economic activity in the area when district boundaries and regulations were established. Sugarcane was the main crop being grown and cultivated by the landowners at the time. However, since then, the sugar industry has ceased crop production for eventual phase out of sugar crop cultivation. There is no foreseeable resumption of such agricultural activities in the area. The majority of the lands that used to be sugarcane fields in the ewa plain now lie fallow.

The proposed use will not alter the character of the surrounding area in a manner substantially limiting, impairing, or precluding the use of surrounding properties for the principal uses. There will be no negative impacts to the surrounding land uses resulting from the proposed waterpark addition. All surrounding land, including this site, is owned by the Estate of James Campbell and is presently zoned AG-2 and are not currently in agricultural use.

#### 4.6 Groundwater Resources/Hydrology

The principal reservoirs of groundwater in Oahu are in basaltic lava flows that were extruded above sea level. Lava extruded above water is generally thinly bedded, highly clinkery, and highly permeable. Because the Waianae and Koolau volcanic domes have sunk 1,200 feet or more (Macdonald and Abbott, 1970), these subaerial flows generally are thinly bedded, highly clinkery, and highly permeable. In contrast, flows extruded in water are likely to be more massive, less clinkery, and less permeable. The regional permeability of lava, whether high or low initially, is significantly reduced when they are intruded by dikes. The reduction in permeability is a function of the number and volume of the dike intrusions and the geometry of the dikes (Takasaki and Mink, 1985).

Groundwater beneath the property is a part of the Pearl Harbor aquifer sector and the Ewa aquifer system. Groundwater beneath the property is found in a basal, unconfined flank aquifer. The aquifer consists of fresh water with chlorine content below 250 mg/l and is currently used for drinking water purposes. The aquifer is considered irreplaceable with a high vulnerability to contamination (Mink and Lau, 1990). Based on information from wells located in the area, depth to groundwater in the vicinity of the property is approximately 100 feet (EDR, 2004).

The primary source of recharge to this volcanic basai aquifer is from infiltration of rainfall and stream runoff that occurs in the inland portions of the Koolau range. The hydraulic head levels measured in these volcanic basal aquifers result from the alluvial material in the caprock retarding the seaward flow of freshwater. In the inland portions of Pearl Harbor to the east of the project area, basal groundwater can be observed discharging directly to the ocean via a series of springs through localized breaches in the caprock. The State of Hawaii Department of Health established the Underground Injection Control (UIC) line to regulate the injection of wastewater into the ground in order to protect Hawaii's underground drinking waters from contamination. The UIC line is used to determine the level of protectiveness afforded an aquifer as reflected by water quality standard criteria. In general, wastewater injection is prohibited mauka of the UIC line, but is allowed makai of the UIC line.

Therefore, for sites located above the UIC line, the more protective drinking water standards are used as the basis for protectiveness. For sites located below the UIC line, the saltwater quality standards are used as a basis for protectiveness (State of Hawaii DOH, 1992). The property lies mauka of and is thus above the UIC line.

There are no perennial streams draining to the ocean. No adverse impacts on the area's hydrology is anticipated to result from the proposed improvements.

#### 4.7 Natural and Manmade Hazards

Natural hazards in the Hawaiian Islands are events such as tsunamis, earthquakes, floods, hurricanes, soil slippage, and volcanic hazards. The Oahu Civil Defense Tsunami Evacuation Map indicates the project area just outside of potential tsunami inundation

## Hawaiian Waters Adventure Park

areas. According to the Flood Insurance Rate Map (FIRM), the project is located in Zone "D", indicating flood hazards are undetermined in the area. The area may suffer from hurricanes and minor earthquakes. Impacts of hurricanes and earthquakes will be mitigated by compliance with Uniform Building Code adapted by the City & County of Honolulu.

A Phase I Environmental Site Assessment for the project site identified as Oahu TMK 1-9-1-016, Parcel 009, was prepared by the Environet, Inc. in September 2004, in conformance with the scope and limitations of ASTM Practice E 1527-00. The purpose of the assessment was to determine whether conditions or situations at the site might result in present real or potential hazards, or environmental liabilities as dictated by federal, state, and local statutes and regulations. The following is the summary of the information provided by the report. The complete report is included in Appendix .

Historical records have shown that widespread use of pesticides in the Ewa Plain for sugarcane cultivation has resulted in varying degrees of pesticide contamination in soil and/or groundwater. The main location of excessive pesticide contamination in sugarcane areas are typically associated with pesticide mixing areas. However, neither our historical research nor the site visit found any evidence to indicate that a mixing plant was ever located on the property. The study concludes that further investigation is not warranted at this time.

An inspection of the site revealed the 55 gallon drums, car/golf cart batteries, paint containers, the engine and stained soil, piles of construction, and household debris. As a follow up to the report recommendations, these items have been properly disposed.

### 4.8 Flora and Fauna

The property has historically been used for sugarcane cultivation and mining. Sugarcane cultivation in the area ceased in the mid 1990s. It is not known when the mining activities ended. The property remained undeveloped until 1998, when the Hawaiian Waters Adventure Park was constructed.

The proposed and future development will take place only on the previously disturbed area. The proposed improvements to the waterpark are not anticipated to have a significant adverse impact on floral or faunal resources because all work will occur within heavily disturbed areas. Recently a field reconnaissance was conducted of TMK no. 9-1-16:030, a 14-acre site for a proposed development makai of HWAP. A botanical resource study was conducted for the makai parcel and findings regarding botanical resources for that site concluded that no endangered or threatened botanical resources exist on the makai parcel. Therefore, it was concluded that a study may not be needed because existence of threatened or endangered species is unlikely within HWAP's boundaries (telecommunications on July 27, 2004 with botanist Winona Char who conducted the study for the makai parcel).

**Hawaiian Waters Adventure Park**

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The State Department of Land and Natural Resources and the US Fish and Wildlife Service have been consulted during the DEA preparation and DEA public comment phase for official communications required for documentation. Night lights used by the park have not and are not expected to adversely affect any migratory paths of birds in the park's vicinity. Night lights in the future will be kept within the limits of the park's boundaries.

## 5 ASSESSMENT OF EXISTING HUMAN ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES

### 5.1 Archaeological and Historic Resources

The property has historically been used for sugarcane cultivation and mining. Sugarcane cultivation in the area ceased in the mid 1990's. It is not known when the mining activities ended. There are no known sites on the State or Federal registers in the project site. All proposed activities will occur in the areas that have been previously disturbed or cleared.

Act 50, enacted by the Legislature of the State of Hawaii (2000) requires state agencies and other developers to assess the effect of proposed land use or shoreline developments on the "cultural practices of the community and State as part of the HRS Chapter 343 environmental review process (2001). Its purpose has broadened, "to promote and protect cultural beliefs, practices and resources of native Hawaiians and other ethnic groups, and it also amends the definition of 'significant effect' to be redefined as "the sum of effects on the quality of the environment including actions that are...contrary to the State's environmental policies...or adversely affect the economic welfare, social welfare, or cultural practices of the community and State" (H.B. 2895, Act 50, 2000).

As suggested in the "Guidelines for Assessing Cultural Impacts" (OEQC 1997), consultation with organizations familiar with cultural practices and features associated with the project area is permissible in the process of determining the project's impacts on cultural practices in the area. According to the OEQC (1997), a 'good faith effort' is required to investigate the potential cultural impact on a property. In the case of the present site, limited archival research was conducted, and letters of inquiry during the Pre-Assessment period were sent to the Oahu Office of Hawaiian Affairs and the State Historic Preservation Division. The responses obtained during the Pre-Assessment and Draft EA public review periods, included in the Appendix, provide a good faith level of effort. Additionally, research conducted in conjunction with the Phase I Environmental Site Assessment study revealed that historical usage of the property included commercial agriculture and quarrying.

The proposed project is not anticipated to have substantial impacts on cultural resources in the region since the project area is not known to have been used for traditional cultural purposes for at least the last 75 years. However, should any iwi or Native Hawaiian cultural or traditional deposits be found during ground disturbance, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

### 5.2 Roadways and Traffic

A Traffic Impact Analysis Report (TIAR) was prepared by Julian Ng, Incorporated for the project master plan update. The final TIAR is included in the appendix.

The project is located north of Farrington Highway between Kamokila Boulevard (Old Farrington Highway) and Kalaeloa Boulevard and vehicular access is currently adequately provided by two driveways from Farrington Highway. Farrington Highway and Old Farrington Highway are under City and County of Honolulu jurisdiction. Traffic analyses were done to identify future conditions at the site driveways and to assess the parking provided by the project master plan.

HWAP is primarily served by the Farrington Highway and H-1 Interstate Freeway. Campbell Exit provides access from H-1 Freeway to Farrington Highway. Farrington Highway with Kalaeloa Boulevard and H-1 Freeway provides access to the waterpark. Primary access to the site is by the H-1 freeway which runs near one side of the park and has an existing off-ramp within 100 yards.

Near the middle of the site frontage, the site's main driveway provides for vehicular entry; it also serves as an exit for vehicles from the east side of the site, where service vehicles and a limited number of employee parking stalls are located. This driveway is approximately 60 feet wide, with two lanes for entering vehicles and two lanes for exiting vehicles. A second driveway is located approximately 500 feet to the west; this driveway is used as an exit only and is 24 feet wide, providing separate lanes for vehicles desiring to turn right and to turn left onto Farrington Highway. Both driveways are unsignalized and stop signs are in place to stop vehicles on the driveways before they enter the highway. A striped median provides a refuge area for left turns onto the highway, allowing that movement to be made in two steps.

Because the existing traffic at the site is significantly less than had been expected when the park was built in 1998, project traffic has been estimated by simulating vehicular movements in and out of the parking lot. Table 1 shows the estimate of the number of vehicles due to customers at the park on a peak day.

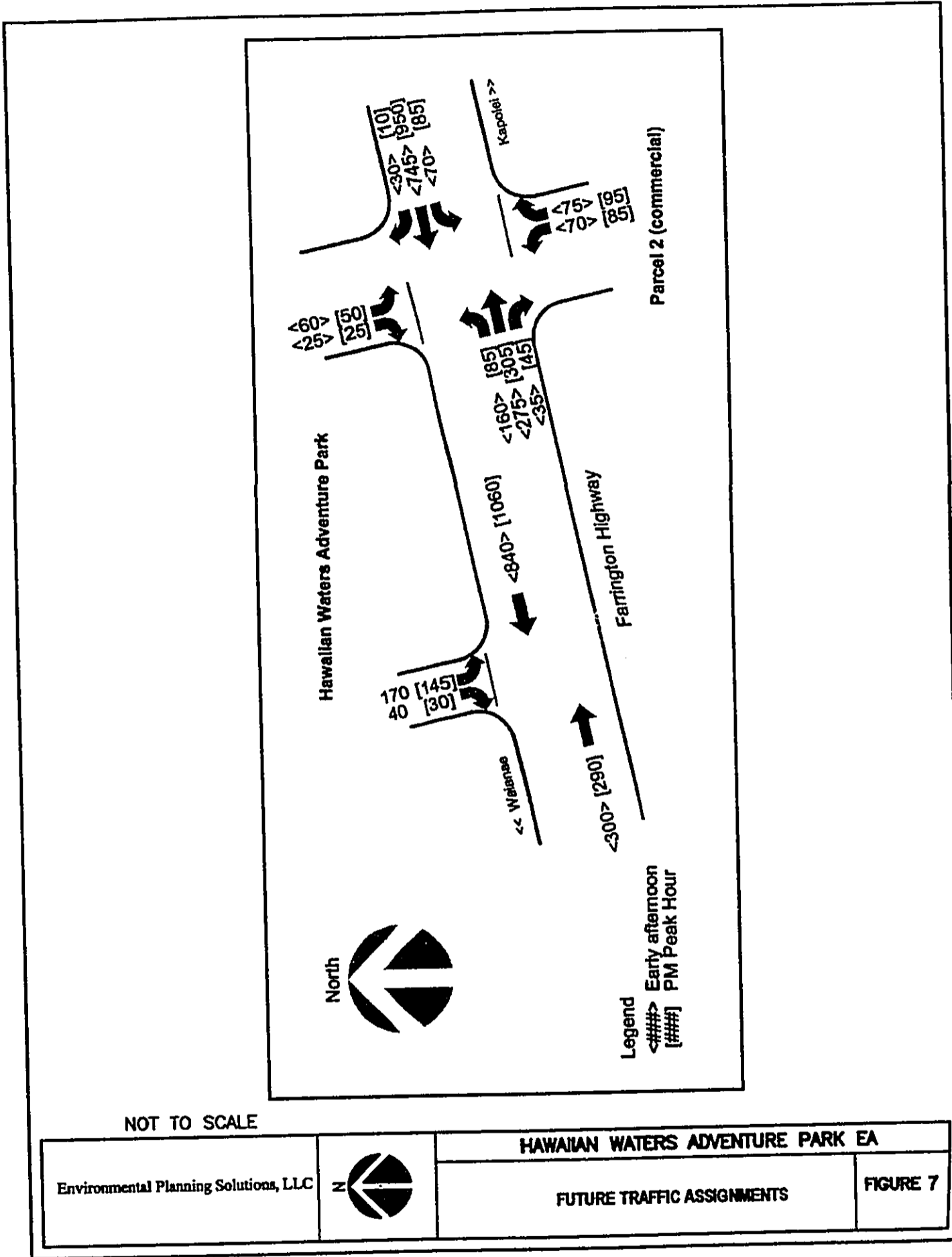
Table 1 – Peak Day Traffic Due to Visitors (Future with Project)

Annual visitors	550,000
Average day visitors (275 days of operation)	2,000
Peak day visitors (150% of average day)	3,000
Traffic volume in peak day, 3.5 persons per vehicle	860

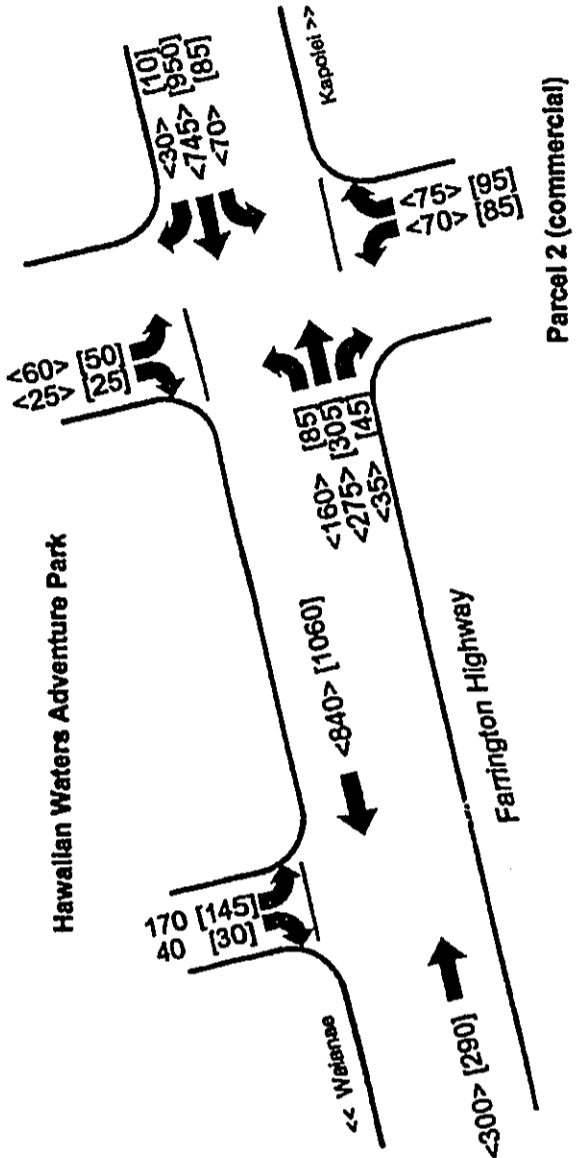
Figure 7 shows traffic assignments on Farrington Highway fronting the project site for the PM Peak Hour. This reflects the projected Future with Project condition. Traffic from the commercial activity south of Farrington Highway (Parcel 2) has been assumed to use a new driveway located opposite the existing eastern driveway to HWAP.

Revisions to the HWAP master plan will increase traffic volumes to and from the park. However, due to the hours of operation of the park, significant impacts to traffic volumes in the area will not occur during peak hours for other traffic. Because the original waterpark was designed to accommodate up to 550,000 guests annually, existing driveways and parking lots are expected to accommodate the increased traffic.





North



Legend  
 <###> Early afternoon  
 [###] PM Peak Hour

Traffic signals at either of the site driveways do not appear to be needed or warranted. Mitigation of possible undesirable conditions includes scheduling of deliveries and service vehicles so that they do not leave the site during the times visitors to the park leave. Circulation between the park's and Parcel 2's driveways in both directions should be maintained to provide options for exiting traffic. Vehicles leaving the eastern part of the site should be provided the option of using the internal roadways to exit through the westerly driveway.

No negative impact to the area's streets and highways is anticipated. The majority of the traffic generated by HWAP will be contra-flowed to the area's existing traffic patterns and/or will be off peak.

### 5.3 Noise

Noise is any sound which annoys or disturbs humans or causes or tends to cause an adverse psychological or physiological effect on humans. Decibel (dB) is the unit in which the levels of various acoustical quantities are expressed. Typical quantities are sound pressure level, noise level, and sound power level.

The hours of operation will be the same as the existing schedule. During the summer (May 15 to September 15), the waterpark will operate from 10:00 a.m. to 10:00 p.m. on daily basis. During the winter (September 16 to May 14), the water park will operate from 9:30 a.m. to sunset. No noise will result from filtration or pumps which are to be insulated and sound proofed. All operations will occur between the hours of 10 a.m. and 10 p.m. Noise would be limited to sound generated by participants enjoying the park's typical water activities.

There will be short-term increase in noise levels due to construction activity. Noise generated by construction activities will be mitigated to some degree by requiring the contractor to adhere to State and County noise regulations. This includes ensuring that machinery is properly muffled.

### 5.4 Air Quality

Air pollutants affecting the project area are mostly from vehicular, industrial, natural and agricultural sources. Emissions generated in the project area tend to be carried away by the prevailing winds most of the time.

Dust, odor, and fumes will not be produced by HWAP. No pollution will occur from any of the waterpark's activities.

### 5.5 Visual Resources and Open Space

One natural landmark known as Puu Palailai is located approximately 0.25-mile uphill of the project site, perched over the western (Waianae) end of the waterpark's parking lot.

## Hawaiian Waters Adventure Park

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Between Puu Palailai and the Waianae end of the waterpark is a satellite antenna farm consisting of several large white parabolic satellite dishes on land leased from the Estate of James Campbell that are quite visible from the H-1 freeway and Farrington Highway. The satellite antenna farm practically dominates the mauka-makai view channel of the western end of the waterpark which currently consists of the park's guest parking lot.

However, for the most part spectacular scenic views exist from the project site — they are of the southshore coast to the south from the highest point of the property. The major viewsheds of the waterpark are from the H-1 Interstate Freeway. The other viewsheds are from industrial areas across the Freeway although many commercial buildings block the views of the waterpark. See Figures 8 and 9.

The existing waterpark is characterized as a lush tropical park due to its rich tropical landscape material surrounding the park. The proposed height limit under the B-2 Community Business zoning district is 60 feet. Additional activities and their accessory structures for miniature golf, sports and fitness center, restaurant, and administrative offices are planned to be built well within the proposed 60-foot height limit to maintain HWAP's existing tropical park atmosphere. The additional improvements to the existing waterpark will be landscaped with coconut palms and native tropical foliage, consistent with the current landscaped environment.

The size and scale of the water slides are small and scattered that the additional facilities' impact on the aesthetic quality of the area will be minimal. In addition, the proposed additions to the waterpark will be surrounded by a well-designed landscape treatment, and added attractions will add visual relief and enhancements to views from the highway. No adverse impacts from the addition to the existing waterpark are anticipated on the project area since the proposed improvements will be accompanied with a lush tropical landscape.

### 5.6 Social Characteristics

#### 5.6.1 Population

The Ewa plain has been undergoing dynamic changes, centered on the developing City of Kapolei. The City of Kapolei is expected to be a focal point of a master-planned community of the Ewa plain as the secondary urban center of Oahu. There are many proposed projects in the vicinity of the waterpark such as the Estate of James Campbell's future Maritime Industrial Subdivision, continuing development of City of Kapolei, and on-going Ko Olina Resort development.

Since there is no residential development or overnight facility proposed in the property, the addition to the waterpark will not have significant effect on the area's population trend. The proposed project will not have significant adverse impacts on surrounding developments. Development of the Ewa plain will continue regardless of the proposed improvement at addition to the waterpark.

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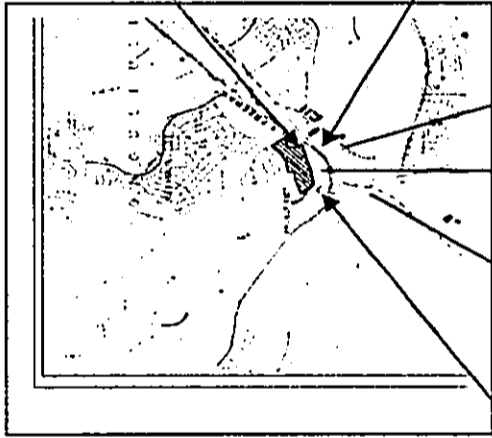
Looking onto the park from the eastern end of Farrington Highway.



View toward middle of park from makai of Farrington Highway

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DEPT OF PLANNING  
AND PERMITTING  
CITY & COUNTY OF HONOLULU

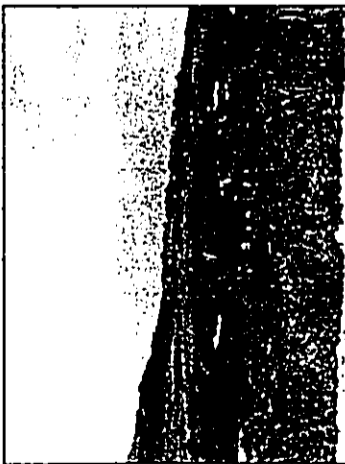
FIGURE 8  
VISUAL ANALYSIS



View toward Farrington Hwy from west parking lot.



Mauka facing view of HWAP from Consolidated Theatre parking lot.



View of HWAP from Kamokila Boulevard corner of the State building.



View onto the park from the Kalaeloa Boulevard/Farrington Highway bridge.

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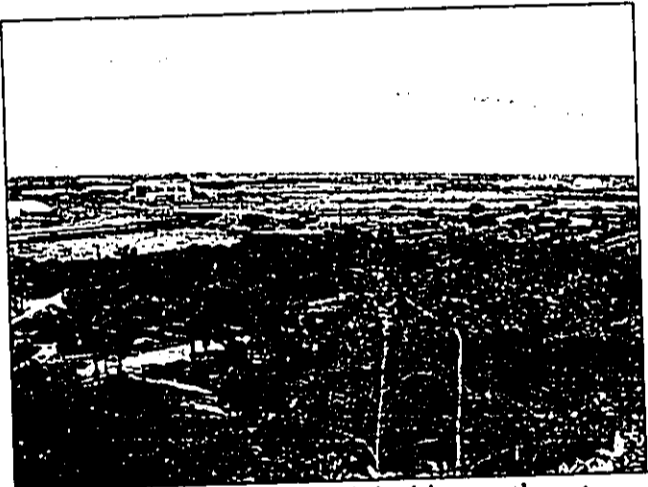
CITY



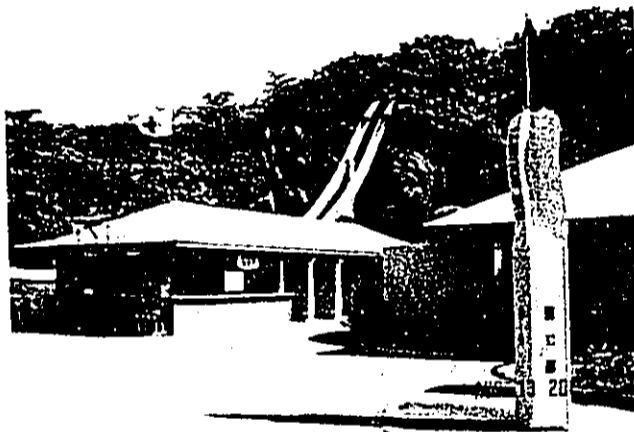
Hawaiian Waters Adventure Park entry gate



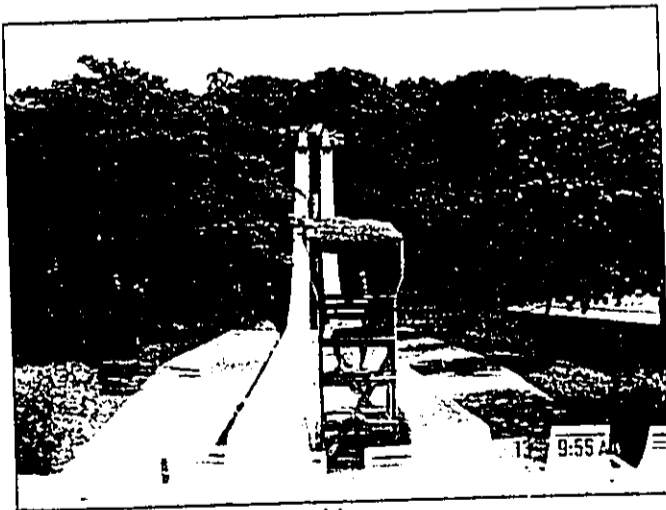
Main parking lot contains 783 parking stalls



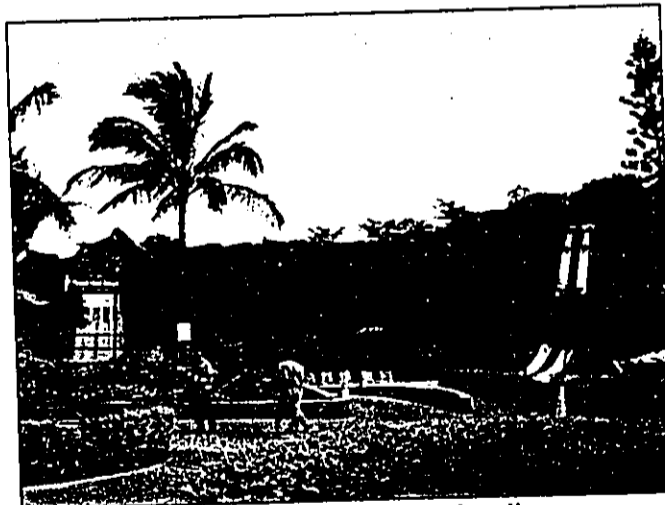
View from above the park looking southwest



First Aid Station



Cliff Hanger ride



Cliffhanger to right of landscaped walkways

FIGURE 9 PHOTOS

### 5.6.2 Housing

Most of the Oahu's new housing development has been occurring in the Ewa and Central Oahu Region of the island. Lower interest rates in the recent years and competitive pricing of the Kapolei area housing unit have expanded the home-ownership opportunity to many more households. The trend is expected to continue over the next decade to accommodate the anticipated population growth and housing demand for Oahu.

Since there is no residential development or overnight facility proposed in the property, the addition to the waterpark will not have significant effect on the area's population trend. The proposed project will not have significant adverse impacts on the surrounding developments. Development of the Ewa plain will continue regardless of the proposed improvements and additions to the waterpark.

### 5.6.3 Lifestyle/Character of Community

Participatory water activity is extremely limited in scope in Hawaii, and such activities as surfing, swimming, fishing, parasailing, snorkeling, scuba diving, canoe paddling, and sailing are limited to individuals or small groups. Additionally, several of these activities are being curtailed as State and City governments place restrictions on beaches and water areas. The increasing number of visitors to Oahu has also made many beaches congested.

The existing waterpark has been offering residents and visitors a unique experience unlike anything now available locally. The pollution-free water, wide range of activities, and close supervision of these activities will appeal to both parents and children. Residents will be offered family or kamaaina passes at special prices, making return visits economical.

Oahu currently has severely limited suitable space for planned organizational picnics and events. Organizations are forced to go to public parks, where space is limited and on a first-come, first-serve basis. As stated earlier, the waterpark will continue to offer a complete picnic area and a kitchen for catered group events.

## 5.7 Economic Characteristics

### 5.7.1 Employment, Personal Income and Expenditures

The HWAP has created approximately 20 full time year round jobs in additions to 100 seasonal jobs (150 to 210 days per year). The seasonal positions will be filled by area high school and college age persons. During construction for the waterpark addition, HWAP will utilize 50 to 100 full time construction workers for a period of 4 to 6 months for the Phase 1 development.

## Hawaiian Waters Adventure Park

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HWAP offers job training opportunities to high school students. Last year the waterpark accepted about 30 students from Kapolei High School and 5 were hired as employees at the end of their internship period. Waipahu, Nanakuli, Campbell High Schools are also seeking to participate in this program with HWAP this year and the waterpark is coordinating program details with these schools at this time.

In addition, 77% of HWAP's employees come from the west side (Waianae, Kapolei, Ewa Beach, Waipahu). The following is a detailed breakout of areas represented by the waterpark's employees:

Waianae 32%  
Kapolei 24%  
Ewa Beach 12%  
Waipahu 9%  
Other areas 23%

### 5.7.2 Economic Factors/Government Revenues

The waterpark has created 20 permanent positions and approximately 100 seasonal positions. This translates into approximately \$2.8 million estimated payroll for each year of operation.

## 5.8 Infrastructure Systems

### 5.8.1 Water Supply Facilities

The waterpark has been operating with an allocation of 75,000 gpd from the the Estate of James Campbell's existing Water System Facilities allocation from the Board of Water Supply. As of June 2005, HWAP has purchased an additional 36,500 gpd at a fee \$30,400.00, which brings the total waterpark allocation to 111,500 gpd. Water demand generated by the addition to the waterpark is anticipated to be minimal as all water contained in the new attractions will be part of the existing slide, stream, and pool system, which are constantly filtered and recycled. All necessary improvements to the water system will be designed and constructed to meet state and county standards. The proposed project is not anticipated to result adverse impacts on the area's water supply.

### 5.8.2 Wastewater Facilities

The waterpark's wastewater is currently discharged into the City and County's wastewater system via a 12-inch sewer main that runs from HWAP under Farrington Highway and the H-1 Freeway to the city's 21-inch sewer main in the City of Kapolei. The 12-inch main was designed and constructed by HWAP as a condition of its lease agreement with landowner the Estate of James Campbell. Wastewater has been and will continue to be disposed of via municipal sewer lines at Honouliuli Wastewater Treatment Plant (WWTP) located adjacent to Barbers Point Naval Air Station.

The park's 12-inch sewer main was designed to accommodate 150,000 gallons per day (gpd) average flows which are typical for retail/commercial land use operations. HWAP opened for business in the year 2003, and current average wastewater peak flow is 55,000 gpd. which is far less than its design capacity. In August 2003, HWAP and the Department of Environmental Services (ENV) signed an agreement whereby the ENV accepts responsibility for the "future maintenance and/or replacement" of the 12-inch main under certain conditions. See copy of agreement in the Appendix. As indicated in Section 1.0 Introduction and Section 2.0 Project Description the park was originally designed to accommodate upwards of 550,000 annual visitors. As of 2004, the annual attendance count was 320,000 – far short of the design capacity. The projected improvements and additional attractions are expected to result in a slight increase in overall attendance. However, even with the anticipated attractions, the overall increase is not expected to approach the optimal design capacity of HWAP. Civil engineering analysis concluded the 12-inch sewer main is expected to accommodate the waterpark and its proposed improvements in the long-term. Thus, contrary to DPP's comment stating the need to replace this 12-inch main (letter dated May 24, 2005), it is determined that such is not necessary.

Since there are no residential development or overnight facility proposed in the property, increase in the daily average wastewater flow is anticipated to be minimal. All water contained in the slides, streams, and pools is constantly filtered and recycled. The only wastewater generated by the waterpark is from normal restroom and kitchen use.

#### 5.8.3 Drainage Facilities

The existing waterpark has not experienced any significant drainage problems since the beginning of operation. The proposed attractions are placed to take advantage of the existing topography. The overall layout is designed to respond to the configuration and slope of the property and takes into account general drainage courses. The increase in stormwater resulting from the proposed development will not have an adverse impact on the existing drainage system.

The proposed improvement will generate low volumes of increased runoff due to the increase in an impervious surface. In order to accommodate relatively low volumes of increased runoff due to the development, the proposed drainage improvement should include surface drainage facilities. These drainage facilities may consist of swales and grassed open drainage channels. All drainage infrastructures will be designed and constructed to meet state and county standards.

#### 5.8.4 Solid Waste Disposal Facilities

The waterpark utilizes a private refuse disposal firm. The proposed addition to the waterpark is relatively small in scale. The amount of solid waste generated by the proposed addition is anticipated to be at a minimum.



#### 5.8.5 Electrical and Gas Utility Systems

Electricity of the existing waterpark is supplied by Hawaiian Electric Company (HECO). The increase in electrical demand due to the addition to the waterpark is anticipated to be at a minimum. The proposed improvements are not anticipated to result in adverse impacts on the area's electrical power supply. Night lights have been in use at HWAP since its opening in 2003, and night lighting at HWAP has not been known to impede flight paths of migratory birds. However, any additional exterior night lighting will be confined within the limits of the existing park. If in the future it is deemed necessary, HWAP will evaluate the need to fully shield overhead night lights to minimize potential impact on avifauna.

The Gas Company, LLC maintains utility gas mains in the project vicinity which serves commercial and residential customers in the area and is interconnected with the utility network in Kapolei. HWAP improvement planning will need to minimize any potential conflicts with existing gas facilities in the project area.

#### 5.8.6 Telephone/Communication

Verizon Hawaii provides existing service to the HWAP. Verizon owns and maintains a pole line along Farrington Highway. The proposed addition to the waterpark is not anticipated to result in adverse impacts on the area's telecommunication services.

### 5.9 Public Services

#### 5.9.1 Schools

There are several public schools in the vicinity of the project site, including Ewa Beach Elementary, Ewa Elementary, Pohakea Elementary, Ilima Elementary, Kapolei Elementary, and Campbell High School.

The proposed addition to the HWAP is not anticipated to have significant adverse effects on the areas public schools. The project will provide some meeting facilities and picnic area for all to enjoy.

HWAP offers job training opportunities to high school students. Last year the waterpark accepted about 30 students from Kapolei High School and 5 were hired as employees at the end of their internship period. Waipahu, Nanakuli, Campbell High Schools are also seeking to participate in this program with HWAP this year and the waterpark is coordinating program details with these schools at this time.

#### 5.9.2 Police & Fire Protection

The Kapolei Police Station located at 1100 Kamokila Boulevard and the Kapolei Fire Station at 2020 Lauwiliwili Avenue provide police and fire protection for this area.

## Hawaiian Waters Adventure Park

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No residential or overnight uses are proposed, the existing police and fire protection services and facilities are adequate for the proposed improvements. HWAP will provide security personnel during peak hours of operation.

No significant adverse impacts on the Police or Fire protection services are anticipated. As HWAP proceeds with phased improvements, construction drawings will be submitted to the Police and Fire Departments during the Building Permit review stages to ensure coordination with public safety services and compliance with the Uniform Fire Code.

### 5.9.3 Health Care/Hospitals

St. Francis Medical Center – West is the nearest hospital facility to the subject property. Ambulance service is coordinate with the City and County of Honolulu, and the medical center has a helipad. The medical facility offers general hospital services including emergency care, outpatient care, lab and imaging services, and medical offices.

No significant adverse impacts on the health care facilities are anticipated.

### 5.9.4 Recreational Facilities

Recreational facilities in Ewa and Kapolei areas are designated as regional parks, community parks, neighborhood parks, and beach parks, which are maintained by either the City or State. HWAP's primary goal is to enhance recreational opportunity in the island of Oahu by providing a variety of activities and water recreation in a supervised and controlled environment. HWAP will have a positive impact on Honolulu's parks and recreation facilities by supplementing them, especially during their peak use times (summer, weekends, and holidays).

### 5.9.5 Public Transportation

Most park visitors will be arriving by individual vehicles, tour buses, or public transit. Access to the site is by the H-1 freeway which runs near one side of the park and has an existing off-ramp within 100 yards. A city bus stop is located in the southwest portion of the site. Please see Figure 4 and Appendix A, Traffic Impact Analysis Report.

No negative impact to the areas public transportation system is anticipated. The majority of the traffic generated by the waterpark will be contra-flow to the areas existing traffic patterns and/or be off peak. All stacking, visitor and employee parking will occur on-site.

## 5.10 Summary of Potential Impacts and Mitigation

The HWAP, when fully developed, will provide many recreational amenities: various water slides; water pools; picnic areas; gathering places; mini golf course; comfort station and maintenance building; private wellness/fitness center; and several parking areas. The project will generate short-term adverse impacts due to construction activities.

## Hawaiian Waters Adventure Park

The following is a discussion of potential short-term impacts and mitigation measures to minimize potential adverse effects.

1. Clearing and grubbing will disturb soils and cause some soil erosion. Adequate erosion control measures such as silt screens or sand bags will be provided to prevent silt and other undesirable materials from escaping off work site. Prior to any construction, Erosion Control Plan must be approved by the City and County of Honolulu, Department of Planning and Permitting. Following construction work, planting will be conducted, as appropriate, to minimize further soil loss.
2. Construction operations will temporarily generate increased noise levels. Noise generated from construction activities will be mitigated to some degree by requiring the contractor to adhere to State of Hawaii DOH regulations and the City and County of Honolulu Noise Ordinance, which limits construction operations and resultant noise to daytime hours and specific maximum levels.
3. Construction activities may temporarily impact the area's air quality in the form of fugitive dust and emissions from construction equipment and vehicles. Fugitive dust emission will be reduced by following State DOH Rules and Regulations (Chapter 43, Section 10) which specifies the control measures. This type of emission will be controlled by frequently watering of the construction site. Another measure is to maintain equipment in proper working order.

### 5.11 POTENTIAL LONG-TERM IMPACTS AND MITIGATION

No long-term adverse impacts are anticipated to result from addition to the existing waterpark. All anticipated adverse impacts are construction-related and only short-term.

The proposed project will require minimal alteration of the land. The proposed attractions are placed to take advantage of the existing topography. The overall layout is designed to respond to the configuration and slope of the property and takes into account general drainage courses that occur within the project area. Planting and landscaping are integral elements of this project. The existing trees will be kept undisturbed as much as practicable. Landscaping will incorporate indigenous plants and trees to establish a lush tropical landscape. Architectural and landscaping features will be designed in such ways to retain the tropical ambience. Increased recreational amenities will provide residents and visitors with unique recreational experiences for all age groups, and provide more reason for residents and visitors to participate.

## **6 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES**

### **6.1 Probable Adverse Environmental Effects Which Cannot be Avoided**

Development of the proposed project will involve the irretrievable loss of certain land resources. However, the costs associated with the use of these resources should be evaluated in light of recurring benefits through increased recreational amenities which are renewable resources.

## **7 CONFORMANCE TO FEDERAL, STATE AND CITY PLANNING POLICIES**

### **7.1 Federal**

No Federal permit or review is required for this project.

### **7.2 State of Hawaii – Hawaii State Plan**

The Hawaii State Plan, Chapter 226, Hawaii Revised Statutes, serves as a written guide for the future long range development of the State. The Plan identifies statewide goals, objectives, policies, and priorities.

The proposed project is consistent with the State Plan's objectives and policies for leisure. According to Section 226-23 objectives and policies for socio-cultural advancement- leisure, the following policies would apply to the proposed project:

- (2) Provide a wide range of activities and facilities to fulfill the cultural, artistic, and recreational needs of all diverse and special groups effectively and efficiently.
- (3) Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance.

### **7.3 Hawaii State Land Use Commission Districts (Chapter 205)**

A majority of the project site lies within the State Land Use Commission district category of "urban". The proposed addition to the existing waterpark is permitted under the land use designation. Approximately 112,000 square feet of the land north of the existing parking area is within "agricultural" district. No improvements are proposed within the land categorized as "agricultural." To bring the land into overall conformity within the SLUC Urban district designation because of the proposed outdoor amusement park use, a request to amend the 112,000- square foot section from Agricultural to Urban is being submitted as part of the land use change application.

### **7.4 Hawaii State Functional Plans**

The Hawaii State Functional Plans (Chapter 226, Hawaii Revised Statutes) provide a management program that allows use of State resources to improve current conditions and attend to various social issues and trends. The proposed project is consistent with the State Functional Plan for Recreation through the following Implementing Action:

#### **RECREATION**

**OBJECTIVE II-C:** Improve and expand the provision of recreation facilities in urban areas and local communities.

Policy II-C(1): Meet the demand for recreational opportunities in local communities.

Therefore the proposed project supports the State Functional Plan for Recreation.

7.5 Coastal Zone Management Program

The Hawaii Coastal Zone Management Program (HCZMP) objectives and policies of Section 205A-2, Hawaii Revised Statutes, sets forth the protection and management of Hawaii's valuable coastal areas and resources. The Special Management Area (SMA) is the area defined sensitive environments that should be protected in accordance with the State's coastal zone management policies. The project site is outside of the SMA boundary and is therefore in conformance with the Section 205A-2.

7.6 City and County of Honolulu General Plan

The General Plan identifies the long-range planning goals and objectives which the City and County of Honolulu attempts to accomplish in the interest of Oahu residents. The proposed project is in conformance with the General Plan's objectives and policies for Natural Environment as well as Culture and Recreation:

Culture and Recreation

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

Policy 7- Provide for recreation programs which serve a broad spectrum of the population.

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

Policy 10 - Encourage the private provision of recreation and leisure-time facilities and services.

Economic Activity

Objective A: To promote employment opportunities that will enable all the people of Oahu to attain a decent standard of living.

Policy 1 - Encourage the growth and diversification of Oahu's economic base.

Policy 2 - Encourage the development of small businesses and larger industries which will contribute to the economic and social well-being of Oahu residents.

Objective B: To maintain the viability of Oahu's visitor industry.

Policy 2 - Provide for a high quality and safe environment for visitors and residents in Waikiki.

Policy 9 - Encourage the visitor industry to provide a high level of service to visitors.

#### 7.7 City and County of Honolulu Ewa Development Plan

The City and County of Honolulu has developed a development plan of the Ewa area that encompasses the region from Kahe Point to the West Loch of Pearl Harbor. According to the Ewa Development Plan Urban Land Use Map, the project site will lie within the areas designated as City of Kapolei (High Density Residential and Commercial). Therefore, the proposed project is consistent with the Ewa Development Plan.

#### 7.8 City and County of Honolulu Zoning

The City and County of Honolulu zoning designation is AG-2 "General Agriculture."

The waterpark now operates under CUP No.93/CUP1-35, which was approved in 1993. The waterpark is currently categorized as "outdoor recreation facility", and the existing uses comply with the AG-2 General Agricultural District Development standards. However, the proposed expansion includes a miniature golf course, which is considered as an "outdoor amusement facility" per the LUO. Use as an "outdoor amusement facility" requires Zone Change to an appropriate commercial district with a CUP -Major. Therefore in order to conform with these provisions of the LUO, necessary land use change requests are being submitted for approval.

#### 7.9 Special Management Area and Shoreline Setback Ordinance

The City and County of Honolulu has designated the shoreline and certain inland areas of Oahu as being within the special management area (SMA) as designated by City and County of Honolulu Ordinance Section 25-2.2. SMA areas are defined sensitive environments that should be protected in accordance with the State's coastal zone management policies, HRS, Section 205A. The project site is outside of the SMA. The site is approximately 2.5 miles inland from the nearest shoreline and therefore is not affected by requirements of the shoreline setback ordinance. Therefore, the project does not require an Special Management Area use permit nor a Shoreline Setback Variance.

#### 7.10 Conclusions

The waterpark now operates under CUP No.93/CUP1-35, which was approved in 1993. The waterpark is currently categorized as "outdoor recreation facility", and the existing uses comply with the AG-2 General Agricultural District Development standards. However, the proposed expansion includes a miniature golf course, which is considered

## **Hawaiian Waters Adventure Park**

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as an "outdoor amusement facility" per LUO. Use as "outdoor amusement facility" is permitted in the commercial zoning district with a Conditional Use Permit (CUP) -Major.

Therefore, it requires Zone Change to appropriate commercial district. The purpose of the improvement is to enhance recreational amenities and provide more reason for residents and visitors to participate in the waterpark.

The proposed plan to rezone the park was presented to Kapolei Neighborhood Board No. 34 meeting on December 3, 2003, and HWAP received the full support of the Neighborhood Board as indicated in a letter dated December 19, 2003 from Ms. Maeda Timson, Chair. Discussion of expansion focused mainly on a proposed miniature golf attraction. Although a copy of the DEA was provided Neighborhood Board No. 34 for review and comment during the April 8 through May 7, 2005 public comment period, a follow up presentation to the Board would be in order in the future. The updated long-range master plan which now proposes a new restaurant and sports and fitness facility will be discussed.

The project's Chapter 343 HRS Environmental Assessment pre-assessment phase began September 15, 2004. Of the 30 letters sent to agencies and organizations, 15 response letters were received. The pre-assessment mailing list and respondents are listed in detail in section 12 Consulted Parties and Participants, and response letters are included in Appendix C, Community Consultation. The DEA public comment period was conducted April 8 to May 7, 2005.

The effect of the facility on the natural environment, existing natural monuments, landmarks, scenic views, open space and aesthetic quality of the subject area will be minimal. In the final analysis, despite some minimal and short-term construction related impacts, the proposed addition to the waterpark, for its contributions to the public welfare through enhanced recreational activities and to the local economy, outweigh the need to retain the property as part of the inventory of Agricultural lands.



## 8 ALTERNATIVES TO THE PROPOSED ACTION

### 8.1 Alternatives Considered

#### 8.1.1 No-Action Alternative

The HWAP's intent to expand the existing waterpark has been recognized by the residents and businesses of Kapolei area. The area is suitable for the recreational use due to the surrounding commercial businesses and extensive open space. The proposed development would provide increased recreational amenities and stimulate the local economy in Kapolei. Also, the project will provide some meeting facilities and picnic area for all to enjoy.

The "no action" alternative would retain the existing waterpark in its present condition. In addition to the under-utilization of the land for the owner, the following lost opportunities would also result:

- provide increased recreational amenities to meet present demands;
- provide additional full-time employment; and
- stimulate local economy by bringing more residents and visitors in the area.

The no action alternative will eliminate the opportunity to enhance the existing recreational facility for both residents and visitors to enjoy. With this alternative, there would be no physical improvements to the existing waterpark. The opportunity for the existing waterpark to become a world-class recreational facility that is easily accessible to the local residents may be lost. Therefore, no action alternative would be appropriate.

#### 8.1.2 Land Swap (site containing microwave dishes)

The HWAP considered a possible land swap of approximately 4 acres of the land with the Estate of James Campbell. The HWAP proposed to acquire a portion of the land north of the existing parking area, containing microwave dishes, in exchange for the portion of future expansion area on the eastern corner of the property. However, the Estate last indicated that such a land swap would not be possible at this time.

**9 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND MAINTENANCE OF LONG-TERM PRODUCTIVITY**

No short-term exploitation of resources resulting from the development of the site will have long-term adverse consequences. The property is currently used as the waterpark. The addition to the existing park will enhance recreational opportunities and increase aesthetics by providing lush tropical landscape.

Once construction activities for proposed improvements are completed there will be no effect on air and noise quality, wildlife, or residents of the area.

Long-term gains resulting from the development of the proposed project include provision of a well-balanced community which features increased recreational amenities, and opportunities for increasing employment. The project will enhance the use of the land which is now underutilized.

## 10 CUMULATIVE AND SECONDARY IMPACTS

### 10.1 Cumulative and Secondary Impacts

Cumulative effects are impacts that result from the incremental consequences of an action when added to other past and reasonably foreseeable future actions. Generally, these impacts are induced by the initial action. They comprise a wide variety of secondary effects such as, changes in land use, water quality, economic vitality and population density. These impacts are less defined than secondary effects. Secondary effects are those that are caused by an action and are later in time or farther removed in distance but are still reasonably foreseeable.

Proposed added attractions to the existing waterpark are intended to enhance the park visitor's experience. While an increase in the number of visitors is expected, the net increase would not be substantial enough to exceed the total projected annual visitor count of 550,000 for which the park's infrastructure systems were designed to accommodate. New attractions such as miniature golf will be constructed within the boundaries of the property. Incremental addition of attractions will not impact the rate and location of development in the vicinity or on other surrounding commercially zoned land.

The waterpark is an integral part of Kapolei town which is the City and County's designated urban growth area for which economic growth is anticipated.

The proposed addition to the waterpark is not anticipated to result in cumulative effects; therefore, it would not involve a commitment to larger actions.

### 10.2 Cumulative and Secondary Impacts on Public Services and Facilities

Cumulative effects of an action may be undetectable when viewed in the individual context of direct and even secondary impacts, but nonetheless can add to other disturbances and eventually lead to a measurable environmental change. The proposed addition to the waterpark is not anticipated to result in cumulative effects because the proposed improvements would be developed within the park boundaries and not place additional demands on public services and facilities. Therefore, it would not involve a commitment to larger actions.

## 11 SUMMARY OF UNRESOLVED ISSUES

### 11.1 Overview

There are no unresolved environmental or socio-economic issues with respect to the project's master plan or its update.

### 11.2 Conclusion

It has been determined that the project would not result in adverse social or environmental impacts on the property or its surroundings. Section 13 Findings/Determination discusses the project's evaluation based on the significance criteria in HAR section 11-200-12. Pursuant to the requirements of Chapter 343, HRS, the Draft EA has been circulated during the 30-day public review period for agency and public review and comment.

## 12 CONSULTED PARTIES AND PARTICIPANTS

### 12.1 Agencies and Organizations Consulted in the Preparation of the DEA and During the DEA Public Review Period

The process began when 30 agencies and community organizations were sent letters on September 15, 2004. Nineteen (19) written responses to the Pre-Assessment consultation were received as a result. The DEA public review period was conducted April 8 to May 7, 2005. Thirty-three (33) copies of the DEA were circulated to agencies and community organizations. Fourteen written response letters were received. Responding parties to the Pre-Assessment and DEA consultation periods are identified in Table 13-1. Agencies and organizations that responded are indicated with a check mark (✓).

Table 13-1  
Pre-Assessment Consultation and DEA Public Review  
Respondents

<u>Agency/Organization</u>	<u>Pre-Assessment Responded</u>	<u>DEA</u>
<u>Federal</u>		
U.S. Army Corps of Engineers Pacific Ocean Division Regulatory Branch	✓	✓
U.S. Department of Interior U.S. Fish & Wildlife Service		
Environmental Protection Agency—PICO		
Directorate of Facilities Engineer U.S. Army Support Command Hawaii Environmental Management Office		
<u>State of Hawaii Agencies</u>		
State Department of Agriculture		
Department of Education	✓	✓
State Department of Land and Natural Resources Historic Preservation Division	✓	
State Department of Land and Natural Resources Land Division	✓	
Engineering Division	✓	
CWRM	✓	

Hawaiian Waters Adventure Park

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<u>Agency/Organization</u>	<u>Pre-Assessment</u>	<u>DEA</u>
	<u>Responded</u>	
Aquatic Resources Division	√	
State Parks Division	√	
Na Ala Hele Program State DLNR		
Office of Hawaiian Affairs		√
Office of Environmental Quality Control Office of Planning		√
University of Hawaii at Manoa Environmental Center		
State Department of Health Environmental Management Division Clean Water Branch	√	
State Department of Transportation Highways Division	√	
State Department of Health Clean Water Branch		
State Land Use Commission		√
<u>City and County of Honolulu Agencies</u> Board of Water Supply	√	√
Department of Parks and Recreation	√	√
Department of Planning and Permitting	√	√
Department of Design and Construction		√
Dept. of Environmental Services		√
Dept. of Facility Maintenance		√
Dept. of Transportation Services	√	√
Fire Chief, City and County of Honolulu	√	√

**Hawaiian Waters Adventure Park**

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<u>Agency/Organization</u>	<u>Pre-Assessment Responded</u>	<u>DEA</u>
Police Chief, City and County of Honolulu	√	√
<u>Utilities</u>		
Hawaiian Telcom, Inc.	√	√
Hawaiian Electric Company		
Oceanic Time Warner Cable of Hawaii	√	
The Gas Company	√	
<u>Other Organizations</u>		
Nature Conservancy		
Outdoor Circle		
Sierra Club		
Hawaii's Thousand Friends		
Makakilo/Kapolei Neighborhood Board No. 34		
Honorable Mike Gabbard		

### **13 Findings/Determination**

This Environmental Assessment, prepared in accordance with Chapter 343, Hawaii Revised Statutes as amended, has found that the potential for impacts associated with the proposed action will be minimal.

The potential effects of the proposed project are evaluated based on the significance criteria in section 11-200-12 (Hawaii Administrative Rules, revised in 1996). The following is a summary of the potential effects of the action.

**(1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource:**

The property has historically been used for sugarcane cultivation and mining. Sugarcane cultivation in the area ceased in the mid 1990's. It is not known when the mining activities ended. The majority of the project site is currently developed and used as the waterpark. The proposed addition to the existing waterpark will require minimal site preparation involving vegetation clearing, excavation, filling, grading, general construction, and planting and landscaping.

Also, the costs associated with the use of the existing resources should be evaluated in light of recurring benefits through increased recreational amenities and aesthetics provided by the proposed improvements.

**(2) Curtails the range of beneficial uses of the environment:**

The project will not curtail the range of beneficial uses of the environment. The project will increase recreational amenity and improve the current park facilities. No adverse long-term impacts are anticipated to result from the addition to the existing waterpark. There will be short-term increase in noise levels due to construction activity. Noise generated by construction activities will be mitigated to some degree by requiring the contractor to adhere to State and County noise regulations.

**(3) Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in chapter 344, HRS:**

The project would be in conformance to the Chapter 344, HRS, State Environmental Policy. HWAP's primary goal is to enhance recreational opportunity in the island of Oahu by providing a variety of activities and water recreation in a supervised and controlled environment. The purpose of expanding the existing park is to better utilize the limited existing resources to provide more diverse recreational opportunities for wide range of people. The project will feature a lush tropical landscape with many indigenous species to showcase a sense of place that is uniquely Hawaiian.

**(4) Substantially affects the economic or social welfare of the community or State:**



The proposed project is not anticipated to have significant effects on the surrounding land use or commercial activities. The HWAP took a former sugarcane field that was lying fallow and made a unique recreational park, which has created approximately 20 full time year round jobs in additions to 100 seasonal jobs (150 to 210 days per year). The existing waterpark has been offering residents and visitors a unique experience unlike anything available locally. The waterpark provides a wide range of activities in closely supervised manmade environment where residents and visitors can enjoy water activities. The waterpark will also continue to offer a complete picnic area and a kitchen for catering group events.

**(5) Substantially affects public health:**

The proposed project is not anticipated to have substantial effects on public health. Additions to the waterpark will enhance recreational opportunity in the island of Oahu by providing a variety of activities and water recreation in a supervised and controlled environment. The waterpark will relieve the current overcrowded beach parks condition by creating an alternative destination for water activities. Potentially hazardous materials identified in the Phase 1 ESA report have been properly disposed of.

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

The proposed development would not result in substantial secondary impacts, such as population changes or effects on public facilities. The proposed improvement project is not anticipated to pose significant demands on the existing water and sewer systems. The present level of public facilities and services provides adequate services to handle the current demand at the project site. The improvement is not anticipated to place enough of a demand to result in the need to increase the level of current public facilities and services.

**(7) Involves a substantial degradation of environmental quality:**

The Property has historically been used for sugarcane cultivation and mining. After sugarcane cultivation and mining activities in the area ceased, the site was laying fallow until the existing waterpark was constructed. The waterpark features a lush tropical landscape with many indigenous plant materials. Proposed improvements will accompany landscape treatment and create more green space for recreational uses. Therefore, the proposed project is not anticipated to involve a substantial degradation of environmental quality.

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

The proposed attractions to the waterpark are small in scale and kept within the current property limit. Clearing and grubbing are also limited in scale as the property has been

modified over time for previous land use activities. Landscaping will incorporate indigenous plants and trees to establish a lush tropical landscape. Addition to the waterpark will provide residents and visitors with unique recreational experiences for all age groups, and provide more reason for residents and visitors to participate.

The proposed improvements are not anticipated to result in cumulative effects; therefore, it would not involve a commitment to larger actions.

**(9) Substantially affects a rare, threatened, or endangered species, or its habitat:**

The proposed project is not anticipated to have substantial effects on rare, threatened, or endangered species, or their habitats. No known endangered/threatened flora or fauna has been reported to exist on site. In addition, majority of the property has already been developed into the existing waterpark. Most additions to the waterpark are proposed within the developed portion. About 5 acres in the northeastern portion of the property is currently undeveloped. This portion of the property lies within the boundaries of the old quarry. The proposed improvements in this undeveloped area will incorporate tropical landscape with indigenous plant materials to match the developed portion of the waterpark.

**(10) Detrimently affects air or water quality or ambient noise levels:**

The proposed project is not anticipated to cause significant effects on the area's long-term air or water quality or ambient noise levels. No noise will result from filtration or pumps which are to be insulated and sound proof. Noise will be limited to sounds generated by participants enjoying the water and miniature golf activities.

There will be short-term increase in noise levels and fugitive dust due to construction activity. Noise and fugitive dust generated by construction activities will be mitigated to some degree by requiring the contractor to adhere to State and County noise regulations.

**(11) Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters:**

The project is not situated in an environmentally sensitive area. The entire area is outside of a flood plain. No wetland is located within the property. About 5 acres of the undeveloped portion of the property lies within the boundaries of the old quarry. Steep rock faces surrounds the outcrop to the north. The ground cover consists of gravel, red soil and grasses. The proposed improvements in this undeveloped area will likely result in reduced erosion and better control and management of surface runoff during intense storm.

**(12) Substantially affects scenic vistas and viewplanes identified in county or states plans or studies:**

Hawaiian Waters Adventure Park

The proposed project is not anticipated to cause significant adverse effects on the area's visual resources. The size and scale of the water slides are so small and scattered that the facilities impact on the aesthetic quality of the area will be minimal. In addition, the proposed addition to the waterpark will be surrounded landscape treatment, and it will not be visible from the surrounding properties.

**(13) Requires substantial energy consumption:**

The proposed improvement project is not anticipated to result in substantial energy consumption.

In accordance with the provision set forth in Chapter 343, Hawaii Revised Statutes, this Environmental Assessment has determined that the project will not have significant adverse impacts to water quality, air quality, existing utilities, noise, archaeological sites, or wildlife habitat. Therefore, it is recommended that an Environmental Impact Statement (EIS) not be required and a Finding of No Significant Impact (FONSI) be issued for this project.

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**APPENDIX A**

**Traffic Impact Analysis Report**  
**Hawaiian Waters Adventure Park**  
**Kapolei, Oahu, Hawaii**

**July 2005**

**Prepared for:**  
**Hawaiian Waters Adventure Park**  
**and**  
**Environmental Planning Solutions LLC**

**Prepared by:**  
**Julian Ng, Inc.**  
**P. O. Box 816**  
**Kaneohe, Hawaii 96744**

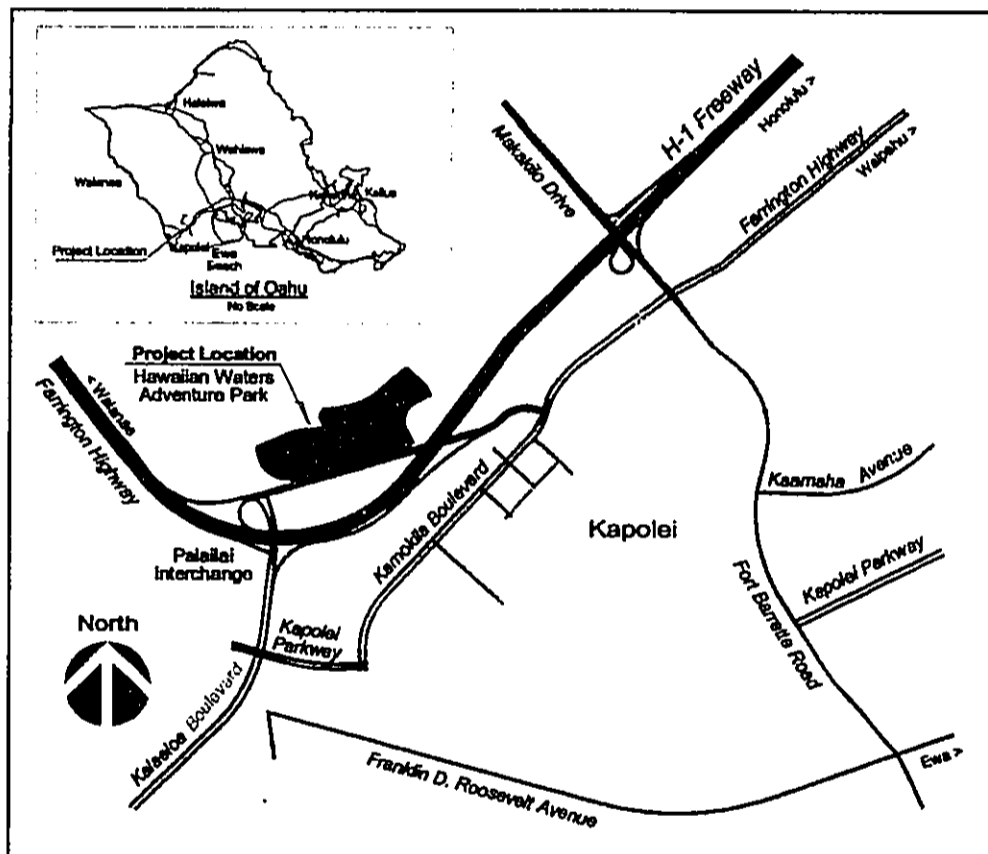
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**Traffic Impact Analysis Report  
Hawaiian Waters Adventure Park  
Kapolei, Oahu, Hawaii**

**July 2005**

The Hawaiian Waters Adventure Park is updating its master plan and has proposed new activities within the existing site located in Kapolei, on the island of Oahu. The project is located north of Farrington Highway between Kamokila Boulevard and Kalaeloa Boulevard and vehicular access is currently provided by two driveways from Farrington Highway (see Figure 1). Traffic analyses were done to identify future conditions at the site driveways and to assess the parking provided by the project master plan.



**Figure 1 – Project Location**

**Existing Conditions**

The park currently opens for the public from 10:30 AM to 3:30 PM on Thursdays, Fridays, and Mondays, and from 10:30 AM to 4:00 PM on Saturdays and Sundays. The park is normally closed on Tuesdays and Wednesdays; however, during school vacations,



the park is open seven days a week. The park also hosts private events, both during the normal open hours and during other times. The park was closed every day of the week between February 1 and February 18.

The traffic generated by the existing park is adequately served by the two driveways. Near the middle of the site frontage, the site's main driveway provides for vehicular entry; it also serves as an exit for vehicles from the east side of the site, where service vehicles and a limited number of employee parking stalls are located. This driveway is approximately 60 feet wide, with two lanes for entering vehicles and two lanes for exiting vehicles. This driveway connects to an internal roadway that runs parallel to the highway and connects the service area to the east to the main parking lot to the west. On Farrington Highway near the main driveway, auxiliary lanes have been provided for turns into the driveway. A second driveway, 24 feet wide and located approximately 500 feet to the west is used as an exit only; providing separate lanes for vehicles desiring to turn right and to turn left onto Farrington Highway. Both driveways are unsignalized intersections with stop controls on vehicles using the driveways before they enter the highway. A striped median provides a refuge area for left turns onto Farrington Highway. A striped median provides a refuge area for left turns onto Farrington Highway, allowing that movement to be made in two steps.

Data from traffic counts taken at the site driveways and on Farrington Highway between Thursday, February 24, 2005 and Wednesday, March 2, 2005 are shown in the appendix. Traffic volumes in and out of the Hawaiian Waters Adventure Park are highest on Saturdays, with Sunday volumes about the same as those of Thursday, Friday, or Monday (the park is closed on Tuesdays and Wednesdays). Peak hourly volumes, however, are about the same on the days that the park is open. Daily and hourly volumes on the highway are highest on Thursday and Friday. Based on the traffic count data from Thursday and Friday, estimates of existing weekday volumes (24-hour and peak hour) are shown in Figure 2.

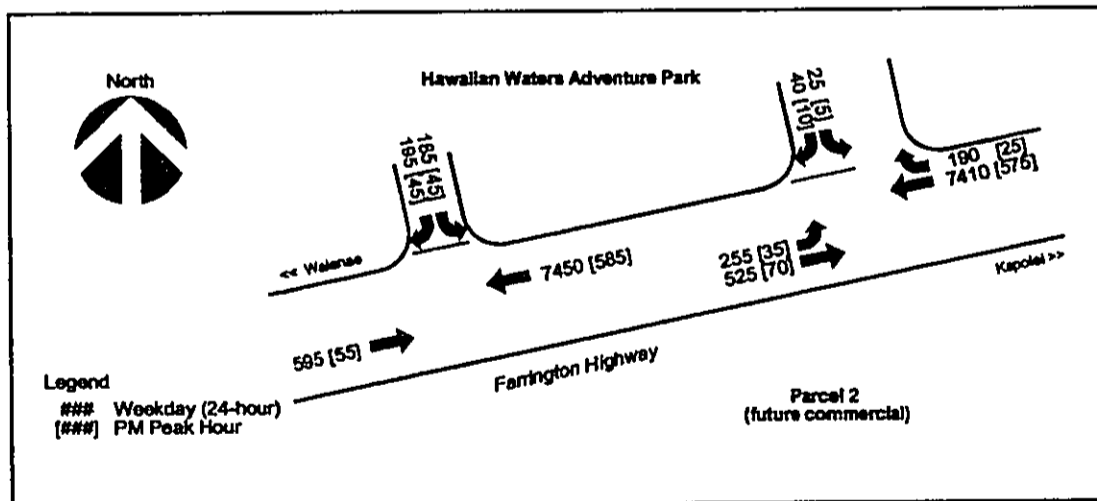


Figure 2 – Existing (2005) Traffic

The intersections formed at the two driveways were analyzed using the procedure described in the *Highway Capacity Manual* for unsignalized intersections. In this procedure, average delays are computed and a "Level of Service" (LOS) identified for each controlled movement. Levels of service ranging from "A" for minimal delay to "F" for very long delays are based on the following criteria:

Unsignalized Intersection	Average delay per vehicle (seconds)					
	≤ 10	> 10 & ≤ 15	> 15 and ≤ 25	> 25 and ≤ 35	> 35 and ≤ 50	> 50
Level of Service	A	B	C	D	E	F

Reference: *Highway Capacity Manual 2000*

Level of Service D is considered acceptable for urban conditions.

Table 1 summarizes the findings from the level of service analyses.

**Table 1 – Existing Intersection Levels of Service, PM Peak Hour**

Unsignalized intersection	West intersection (park exit)			East intersection (entrance & exit)		
	V/C	ADPV	LOS	V/C	ADPV	LOS
Southbound – Right Turns Out	0.11	13.8	B	0.02	12.9	B
Southbound – Left Turns Out	0.11	14.1	B	0.01	13.6	B
Eastbound – Left turns In	n.a.	n.a.	n.a.	0.04	9.1	A

V/C = volume-to-capacity ratio  
 LOS = level of service  
 ADPV = average delay per vehicle, seconds  
 n.a. = not applicable

A City bus stop is located along the internal roadway on the Hawaiian Waters Adventure Park between the two driveways. Route 40/40A of the City's *TheBus* system stops at this bus stop between 9:00 AM and 6:30 PM, with scheduled service consisting of two buses per hour in each direction, seven days a week.

#### Project Traffic Estimates

The proposed project is an entertainment attraction featuring water recreational activities, including various slides and related facilities. The revised master plan includes the addition of additional water attractions, miniature golf, a wellness-fitness center, and supporting retail activities. The project is expected to attract 550,000 persons per year upon completion and full utilization.

The proposed project will operate seven days a week between 10:00 AM and 10:00 PM from mid-May through mid-September. Between mid-September and mid-May, the operating hours will be 9:30 AM to sunset on weekends, holidays, and during public school holidays. The critical traffic impact, therefore, is expected during an afternoon peak hour (PM Peak Hour) of a weekday.

Because the proposed hours will be different from the existing hours, project traffic has been estimated by simulating vehicular movements in and out of the parking lot. Table 2 shows the estimate of the number of vehicles due to customers at the park on a peak day.

**Table 2 – Peak Day Traffic Due to Visitors**

annual visitors	550,000
average day visitors (275 days of operation)	2,000
peak day visitors (150% of average day)	3,000
traffic volume in peak day, 3.5 persons per vehicle	860

Vehicular movements due to visitors in and out of the parking lot were simulated, assuming the peak day occurs between mid-September and mid-May, when the park would be open for a shorter duration, and assuming the park closes at 4:00 PM. The shorter duration of the park opening means higher peak hour volumes for the same daily visitation and this condition has been used to estimate peak hourly volumes. Table 3 shows the peak hourly traffic volumes generated by the visitor traffic.

**Table 3 – Peak Hour Project Traffic**

	Park Visitor Traffic	
	entering	exiting
11:45 AM - 12:45 PM	225	110
1:15 PM - 2:15 PM	140	205
3:00 PM - 4:00 PM	45	165

In addition to the traffic generated by visitors, employees and service vehicles will also generate traffic to the site. The park is expected to employ up to 400 people during the peak season, with approximately 70% working on any one day. The 280 employees are estimated to generate 200 vehicle trips entering and 200 vehicle trips exiting the site on the peak day. Service vehicles would use the east driveway and are estimated to be 120 vehicles per day, with less than 20 vehicles per hour, in each direction. Total daily traffic would be 1,100 vehicles per day in each direction, compared to existing volumes of less 450 vehicles per day on weekdays (and than 1,000 vehicles per day on Saturday).

Most of the employee travel is expected to occur in the hours before the park is opened or after the park is closed. The maximum volume of employee traffic is estimated to be 150 vehicles per hour in one direction, or less than the peak hourly volume generated by visitors. Table 4 shows the peak hour traffic volumes based on this simulation.

The future peak hour volumes compare to the existing peak volumes of 155 vehicles per hour entering and 105 vehicles per hour exiting the site.

In consideration of the existing travel patterns to and from the project site and to evaluate a "worst-case" situation, 85 percent of the traffic entering the site was assumed to arrive from the west. Of the traffic leaving the site, 80 percent was assumed to turn left onto Farrington Highway.

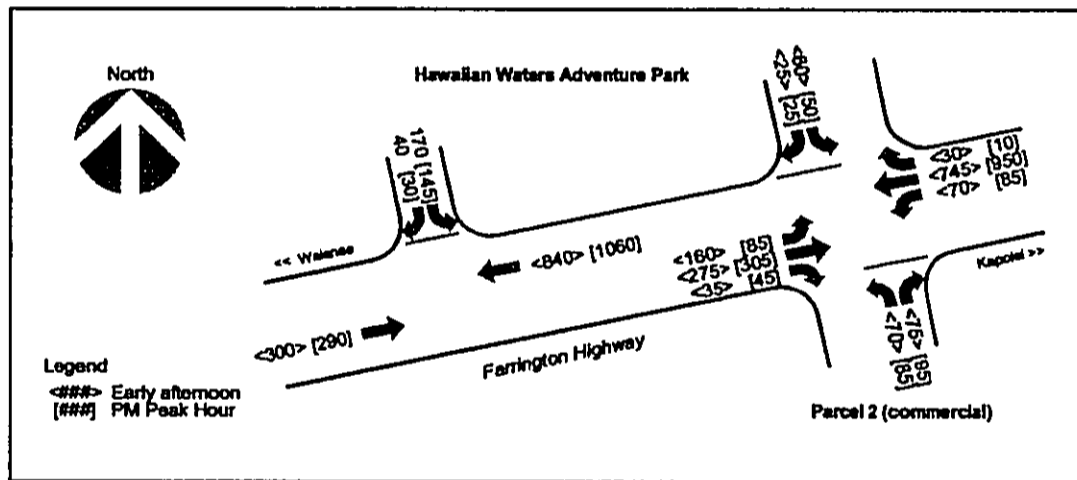
**Baseline for Future Highway Conditions**

The baseline (without project) peak hour volumes on the highway in year 2010 were taken from the traffic study for the rezoning of property located south of Farrington Highway directly opposite the site (*Rezoning Parcels 1, 2, and 3 – Traffic Impact Study, City of Kapolei*, prepared by Wilbur Smith Associates, March 5, 2004, Figure 5-2).

As indicated in Table 3 above, the highest volumes of project traffic would occur in the middle of the day. Non-project traffic volumes during this hour are estimated to be 80% of those in the future PM Peak Hour. Conditions in the PM Peak Hour were also analyzed assuming that project volumes from the 3:00 PM – 4:00 PM hour were added to the baseline PM Peak Hour volumes.

**Traffic Assignment and Analyses**

Figure 3 shows the traffic assignments on Farrington Highway fronting the project site for the PM Peak Hour. Traffic from the commercial activity south of Farrington Highway (Parcel 2) has been assumed to use a new driveway located opposite the existing eastern driveway to the Hawaiian Waters Adventure Park.



**Figure 3 – Future Peak Hour Traffic Assignments**

The intersections formed at the two driveways were analyzed using the procedure described in the *Highway Capacity Manual* for unsignalized intersections. In this procedure, average delays are computed and a “Level of Service” (LOS) identified for each controlled movement. Levels of service range from “A” for minimal delay to “F” for very long delays; LOS D is considered acceptable for urban conditions.

The unsignalized intersections would have sufficient capacities for acceptable conditions for all movements except left turns onto the highway at the easterly intersection. Table 4 summarizes the findings from the level of service analyses.

**Table 4 – Future (2010) Intersection Levels of Service**

unsignalized intersection	Early afternoon			PM Peak Hour		
	V/C	ADPV	LOS	V/C	ADPV	LOS
<b>West Intersection (Hawaiian Waters Adventure Park exit)</b>						
Southbound – Right Turns Out	0.14	17.9	C	0.12	21.2	C
Southbound – Left Turns Out	0.62	34.7	D	0.60	38.3	E
<b>East Intersection (Hawaiian Waters Adventure Park entrance)</b>						
Southbound – Right Turns Out	0.07	15.4	C	0.09	18.5	C
Southbound – Left Turns Out	1.23	324.1	F	1.06	280.1	F
Eastbound – Left turns In	0.22	10.8	B	0.13	11.0	B
Westbound – Left turns In	0.06	8.1	A	0.07	8.3	A
Northbound – Left turns Out	1.33	351.8	F	1.62	468.4	F
Northbound – Right Turns Out	0.11	10.6	B	0.14	11.0	B
V/C = volume-to-capacity ratio ADPV = average delay per vehicle, seconds LOS = level of service						

The finding of poor levels of service at the easterly intersection is based on the analysis that had assumed a priority of movements as follows: (highest to lowest)

- Farrington Highway through movements and right turns
- Farrington Highway left turns
- driveway right turns
- driveway left turns.

With this set of priorities, the lower priority movements (those listed later) would not use the intersection until after the higher priority movements are served. Actual use of this intersection during peak hours can be expected to include instances in which drivers turning left from the highway would yield to drivers turning left from the driveway, thereby decreasing the delay for driveway traffic.

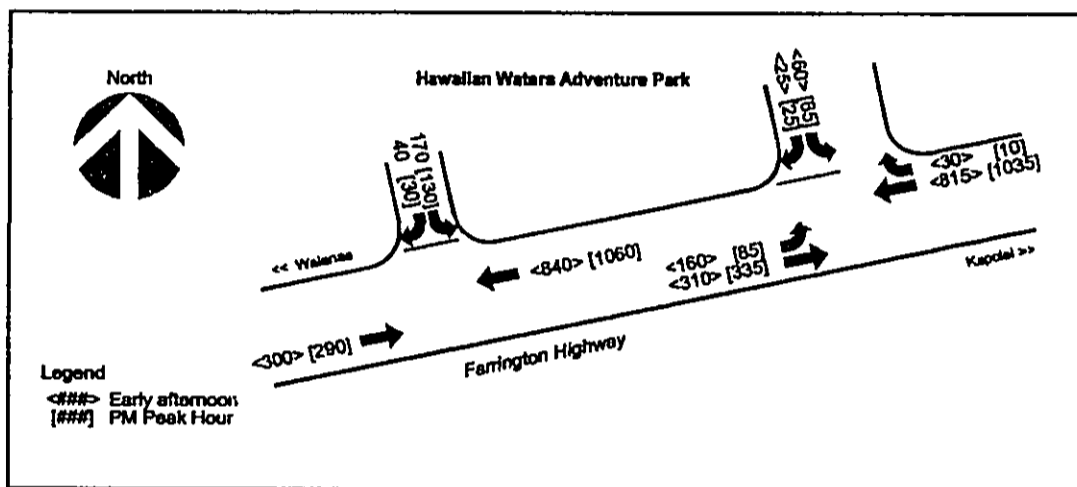
Other possible mitigation for the poor levels of service for the southbound left turns from Hawaiian Waters Adventure Park include a reduction in the volume by scheduling service vehicles so that they will not leave the site during the peak hours (the traffic assignments assumed a volume of 20 vehicles per hour due to service vehicles). Traffic wishing to turn left also has the option of continuing on the internal roadway to exit the site at the west driveway.

Possible mitigation measures for the northbound left turns from the commercial site that could be considered with its development is the placement of a second driveway for exiting traffic only opposite the Hawaiian Waters Adventure Park west (exit) driveway. The use of the median lane as a refuge area for two-step left turn movements could reduce the delays. Another alternative would be to place a driveway from the Parcel 2 site directly to Kalaeloa Boulevard, thereby reducing the number of left turns that would be made from the site onto Farrington Highway. These measures, however, would be

considered for implementation with the development of Parcel 2 and should not be tied to the Hawaiian Waters Adventure Park.

**Future Conditions without Parcel 2 Developed**

A future condition without development of Parcel 2 was also evaluated. The project traffic was added to the baseline volumes and the intersections of the two driveways with Farrington Highway were reanalyzed. Figure 4 shows the traffic assignments, in which 10% of the exiting traffic turning left from the west driveway in the PM Peak Hour was diverted to the east driveway. The results of the analyses are shown in Table 5.



**Figure 4 – Future (2010) Peak Hour Traffic Assignments  
(no commercial development across highway)**

**Table 5 – Future (2010) Intersection Levels of Service  
(no commercial development across highway)**

unsignalized intersection	Early afternoon			PM Peak Hour		
	V/C	ADPV	LOS	V/C	ADPV	LOS
<b>West Intersection (Hawaiian Waters Adventure Park exit)</b>						
Southbound – Right Turns Out	0.14	17.9	C	0.12	21.2	C
Southbound – Left Turns Out	0.62	34.7	D	0.54	34.4	D
<b>East Intersection (Hawaiian Waters Adventure Park entrance)</b>						
Southbound – Right Turns Out	0.08	16.6	C	0.10	20.2	C
Southbound – Left Turns Out	0.30	28.1	D	0.31	28.2	D
Eastbound – Left turns In	0.23	11.3	B	0.14	11.6	B
V/C = volume-to-capacity ratio ADPV = average delay per vehicle, seconds LOS = level of service						

### **Impacts at Palailai Interchange**

The proposed project is expected to increase traffic volumes at Palailai Interchange. The largest impact will affect the loop ramp from westbound H-1 to Farrington Highway, with traffic destined to the Hawaiian Waters Adventure Park from the east adding to other traffic using the ramp. Significant volumes (greater than 100 vehicles per hour) are expected only between 10:00 AM and 3:00 PM and not during normal peak hours.

At the intersection of Farrington Highway and Kalaeloa Boulevard, project-related traffic is expected to total 1,420 vehicles on an average weekday, or about 5% of the total traffic at that intersection (based on PM Peak Hour volumes of about 2,400 vehicles per hour in the baseline for 2010). Project impact to Palailai Interchange, therefore, will be minor.

### **Need for Right-of-Way for Highway Widening**

Subdivision maps of the area indicate a "road reserve widening setback line" along the Farrington Highway frontage of the Hawaiian Waters Adventure Park lot. This area would be needed for any widening of Farrington Highway. If traffic volumes on Farrington Highway increase to the levels indicated in the baseline condition (peak hour volume of over 1,000 vehicles per hour in one direction), widening may be necessary within a few years. Any widening of Farrington Highway would probably require sidewalks and other improvements to conform to requirements for an urban roadway. Project traffic will be only a small portion of the traffic on the highway; the project's highest hourly volume is 350 vehicles per hour total in and out, and if 80% are from the east, project traffic on any part of Farrington Highway would be 280 vehicles per hour, compared to a baseline peak hour volume of about 1,200 vehicles per hour.

### **Need for Traffic Signals at Site Driveways**

Traffic signals would not be needed at the site's westerly driveway, as the existing unsignalized intersection would be adequate. Traffic signals at the intersection at the easterly driveway would be one alternative to mitigate the very long delays that would be incurred by drivers wishing to turn left from the driveways at that location. However, traffic signals would affect the flow of traffic on the highway and signals should not be installed if they are not warranted.

Traffic signal warrants are minimum conditions that are described in the *Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)*, published by the Federal Highway Administration. The *MUTCD* includes several warrants involving traffic volumes. An eight-hour warrant includes two conditions, either of which need to be satisfied for each of any eight hours of a typical day. The four-hour and one-hour warrants involve plotting points representing the major street traffic volume (in this case, the total of eastbound and westbound traffic on Farrington Highway) and the higher minor street (driveway) volume; to satisfy the warrant, the plotted point must fall above the appropriate curve in the *MUTCD*.

Typically, the eighth highest hour volumes are less than 70% of peak hour volumes. Table 3 shows 70% of the peak hour volumes at the intersection and the minimum volumes needed for each of eight hours to satisfy the eight-hour signal warrant. While major street volumes could exceed the minimums required, the minor street volume is not expected to be enough to meet either minimum. Neither of the eight-hour warrants appears likely to be satisfied.

**Table 6 – Traffic Volumes at Easterly Driveway  
Comparison with Eight-hour Signal Warrant**

	70% of PM Peak Hour Volumes	Minimum Volumes to meet Warrant *	
		Condition A Minimum Vehicular Volume	Condition B Interruption of Continuous Traffic
Major Street volume (total)	1,000	500	750
Minor Street volume (larger)	60	150	75

\* *Manual on Uniform Traffic Control Devices for Streets and Highways 2003 Edition.*  
Table 4C-1

The fourth highest hour will have volumes that are about 85% of peak hour volumes; the minor street volume would be 70 vehicles per hour. The four-hour warrant has a lower threshold volume of 80 vehicles per hour for the minor street volume. The plotted point for the fourth highest hour would therefore be below the curve in Figure 4C-1 of the *MUTCD* and the four-hour vehicular volume warrant would not be satisfied.

The peak hour warrant has a lower threshold volume of 100 vehicles per hour for the minor street volume, and the plotted point for the peak hour volumes would be below the curve in Figure 4C-3 of the *MUTCD*. The peak hour warrant would not be satisfied.

Traffic volumes would not meet warrants for traffic signals. One alternative that could create conditions in which a traffic signal would be warranted is the relocation of the commercial (Parcel 2) driveway to the west, opposite the existing water park exit (further discussion of this alternative, however, should be part of a site access study for Parcel 2 and is beyond the scope of this study). Alternatives to provide adequately serve the left turns from the driveways were discussed previously and should be considered.

#### **Conclusions and Recommendations**

Revisions to the Hawaiian Waters Adventure Park master plan will increase traffic volumes to and from the park. However, due to the hours of operation of the park, significant impacts to traffic volumes in the area will not occur during peak hours for other traffic. With only the increase in visitation at the park, the existing unsignalized intersections of the site driveways with Farrington Highway would be adequate.

However, if development of Parcel 2 located across of Farrington Highway occurs, very long delays may result for left turns onto the highway in both directions, due to high volumes of traffic on Farrington Highway.



Traffic signals at either of the site driveways do not appear to be needed or warranted. Mitigation of possible undesirable conditions at these driveways includes scheduling of deliveries and service vehicles so that they do not leave the site during the times visitors to the park are expected to leave. Circulation between the two site driveways in both directions should be maintained to provide options for exiting traffic.

\* \* \*

**Appendix A – Field Traffic Counts**

HWAP Field Counts	Thursday, 2/24/2005		Friday, 2/25/2005		Saturday, 2/26/2005		Sunday, 2/27/2005		Monday, 2/28/2005	
	left turns	right turns	left turns	right turns	left turns	right turns	left turns	right turns	left turns	right turns
West driveway (ext)	0	0	0	0	0	0	3	1	0	0
12:00 AM - 12:15 AM	0	0	0	0	0	0	4	2	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	8	8	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0
12:45 AM - 01:00 AM	0	0	0	0	0	0	0	0	0	0
01:00 AM - 01:15 AM	0	0	0	0	0	0	0	0	0	0
01:15 AM - 01:30 AM	0	0	0	0	0	0	1	1	0	0
01:30 AM - 01:45 AM	0	0	0	0	0	0	1	0	0	0
01:45 AM - 02:00 AM	0	0	0	0	0	0	0	1	0	0
02:00 AM - 02:15 AM	0	0	0	0	0	0	0	0	0	0
02:15 AM - 02:30 AM	0	0	0	0	0	0	0	1	0	0
02:30 AM - 02:45 AM	0	0	0	0	0	0	0	0	0	0
02:45 AM - 03:00 AM	0	0	0	0	0	1	0	0	0	0
03:00 AM - 03:15 AM	0	0	0	0	0	0	0	0	0	0
03:15 AM - 03:30 AM	0	0	0	0	0	0	0	0	0	0
03:30 AM - 03:45 AM	0	0	0	0	0	0	0	0	0	0
03:45 AM - 04:00 AM	0	0	0	0	0	0	0	0	0	0
04:00 AM - 04:15 AM	0	0	0	0	0	0	0	0	0	0
04:15 AM - 04:30 AM	0	0	0	0	0	0	0	0	0	0
04:30 AM - 04:45 AM	2	1	0	0	0	0	0	0	0	0
04:45 AM - 05:00 AM	0	0	0	0	0	0	0	0	0	0
05:00 AM - 05:15 AM	0	0	0	0	0	0	0	0	0	0
05:15 AM - 05:30 AM	0	0	0	0	0	0	0	0	0	0
05:30 AM - 05:45 AM	0	0	1	1	0	0	0	0	0	0
05:45 AM - 06:00 AM	1	1	0	0	0	0	0	0	0	1
06:00 AM - 06:15 AM	0	0	0	0	0	0	0	0	0	0
06:15 AM - 06:30 AM	1	1	0	2	2	2	0	0	0	0
06:30 AM - 06:45 AM	0	0	0	0	3	2	0	0	0	0
06:45 AM - 07:00 AM	1	0	0	0	0	2	0	0	1	0
07:00 AM - 07:15 AM	0	0	0	0	0	0	2	2	0	0
07:15 AM - 07:30 AM	6	3	1	2	0	0	0	0	1	1
07:30 AM - 07:45 AM	0	0	1	1	0	0	0	0	1	0
07:45 AM - 08:00 AM	0	0	1	1	0	0	0	0	0	0
08:00 AM - 08:15 AM	5	2	4	2	1	1	1	1	0	2
08:15 AM - 08:30 AM	2	3	0	0	2	2	0	0	1	0
08:30 AM - 08:45 AM	3	5	1	1	2	1	0	0	0	1
08:45 AM - 09:00 AM	3	3	2	3	0	0	1	1	2	2
09:00 AM - 09:15 AM	4	3	2	2	0	3	2	2	1	2
09:15 AM - 09:30 AM	2	4	1	2	0	0	2	2	1	1
09:30 AM - 09:45 AM	2	6	1	2	4	4	3	3	0	0
09:45 AM - 10:00 AM	3	2	1	3	7	6	0	0	3	3
10:00 AM - 10:15 AM	4	7	3	3	1	2	1	3	1	2
10:15 AM - 10:30 AM	1	5	3	3	2	2	7	5	1	3
10:30 AM - 10:45 AM	4	3	5	5	5	5	6	6	6	4
10:45 AM - 11:00 AM	9	8	1	4	3	4	2	3	2	4
11:00 AM - 11:15 AM	2	1	10	8	7	7	1	3	2	1
11:15 AM - 11:30 AM	2	3	2	2	5	6	1	2	2	2
11:30 AM - 11:45 AM	5	5	6	4	7	8	9	6	5	3
11:45 AM - 12:00 PM	9	7	6	6	3	2	4	9	8	10
12:00 PM - 12:15 PM	2	2	6	1	4	2	10	9	6	5
12:15 PM - 12:30 PM	2	1	7	7	4	2	1	3	5	5
12:30 PM - 12:45 PM	10	14	11	1	4	3	6	6	0	2
12:45 PM - 01:00 PM	2	7	4	8	3	2	0	1	0	1
01:00 PM - 01:15 PM	3	7	4	3	5	4	5	5	1	2
01:15 PM - 01:30 PM	2	8	5	3	4	6	1	5	3	1
01:30 PM - 01:45 PM	7	3	8	8	1	3	4	5	1	3
01:45 PM - 02:00 PM	7	3	3	2	0	5	1	0	1	1
02:00 PM - 02:15 PM	6	10	4	4	4	5	4	4	3	3
02:15 PM - 02:30 PM	1	10	2	5	4	5	3	5	2	4
02:30 PM - 02:45 PM	2	3	3	3	1	4	3	4	3	1
02:45 PM - 03:00 PM	1	4	2	2	8	8	7	8	4	2
03:00 PM - 03:15 PM	8	6	7	10	3	6	12	7	8	6
03:15 PM - 03:30 PM	7	11	12	6	12	9	5	4	3	4
03:30 PM - 03:45 PM	9	6	5	6	11	11	6	8	8	8
03:45 PM - 04:00 PM	17	16	15	17	10	8	8	10	14	9
04:00 PM - 04:15 PM	5	10	12	8	14	13	15	18	10	10
04:15 PM - 04:30 PM	2	5	4	4	32	30	21	22	2	3
04:30 PM - 04:45 PM	3	5	3	1	10	9	5	5	0	1
04:45 PM - 05:00 PM	3	3	0	0	8	5	3	2	1	0
05:00 PM - 05:15 PM	0	1	1	3	1	1	2	2	1	1
05:15 PM - 05:30 PM	1	2	2	1	5	3	3	2	3	3
05:30 PM - 05:45 PM	5	3	1	1	1	2	2	2	2	1
05:45 PM - 06:00 PM	1	1	1	0	5	3	0	0	2	1
06:00 PM - 06:15 PM	6	5	2	1	8	8	1	1	1	1
06:15 PM - 06:30 PM	0	1	0	0	2	4	0	2	3	2
06:30 PM - 06:45 PM	2	2	1	2	3	4	0	0	0	0
06:45 PM - 07:00 PM	0	0	0	0	15	7	0	4	1	2
07:00 PM - 07:15 PM	0	0	0	1	8	5	0	0	0	0
07:15 PM - 07:30 PM	0	0	0	0	10	8	0	0	0	0
07:30 PM - 07:45 PM	0	0	0	0	10	8	0	0	0	0
07:45 PM - 08:00 PM	0	0	2	1	8	6	0	0	0	0
08:00 PM - 08:15 PM	0	0	0	0	7	7	0	0	0	0
08:15 PM - 08:30 PM	0	0	0	0	5	4	2	2	0	0
08:30 PM - 08:45 PM	0	0	0	0	3	3	0	0	1	0
08:45 PM - 09:00 PM	0	0	0	0	0	3	0	0	0	0
09:00 PM - 09:15 PM	0	0	1	1	10	5	0	0	0	0
09:15 PM - 09:30 PM	0	0	0	0	18	11	0	1	0	0
09:30 PM - 09:45 PM	0	0	0	0	2	3	0	0	0	3
09:45 PM - 10:00 PM	1	0	0	0	18	11	0	2	0	0
10:00 PM - 10:15 PM	0	0	0	0	2	3	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	23	13	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	22	17	0	1	0	0
10:45 PM - 11:00 PM	0	0	0	0	14	10	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	19	21	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	39	27	0	0	0	0
11:30 PM - 11:45 PM	0	0	0	0	34	24	0	0	0	0
11:45 PM - 12:00 AM	0	0	0	0	4	4	0	0	0	0
Total 24-hour	194	225	175	169	515	441	202	232	123	132

HWAP Field Counts	Thursday, 2/24/2005		Friday, 2/25/2005		Saturday, 2/26/2005		Sunday, 2/27/2005		Monday, 2/28/2005		Tuesday, 3/01/2005		Wednesday, 3/02/2005	
	right turns	left turns	right turns	left turns	right turns	left turns	right turns	left turns	right turns	left turns	right turns	left turns	right turns	left turns
East driveway exiting	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 AM - 01:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 AM - 01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 AM - 01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 AM - 02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 AM - 02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 AM - 02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 AM - 02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 AM - 03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 AM - 03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 AM - 03:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 AM - 03:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 AM - 04:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 AM - 04:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 AM - 04:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 AM - 04:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 AM - 05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 AM - 05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 AM - 05:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0
05:30 AM - 05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 AM - 06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 AM - 06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 AM - 06:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0
06:30 AM - 06:45 AM	0	1	1	4	0	1	0	0	0	0	0	0	0	0
06:45 AM - 07:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0
07:00 AM - 07:15 AM	0	0	0	2	1	2	0	0	0	0	0	0	0	0
07:15 AM - 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM - 07:45 AM	0	0	0	1	0	3	0	0	0	0	0	0	0	0
07:45 AM - 08:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0
08:00 AM - 08:15 AM	1	2	0	6	0	2	0	0	0	0	0	0	0	0
08:15 AM - 08:30 AM	0	2	0	0	1	1	0	0	0	0	0	0	0	0
08:30 AM - 08:45 AM	0	3	2	1	0	2	0	0	0	0	0	0	0	0
08:45 AM - 09:00 AM	0	4	0	1	2	7	0	0	0	0	0	0	0	0
09:00 AM - 09:15 AM	1	3	0	3	0	4	2	0	0	0	0	0	0	0
09:15 AM - 09:30 AM	0	2	0	2	1	6	0	0	0	0	0	0	0	0
09:30 AM - 09:45 AM	0	2	0	4	1	2	0	0	0	0	0	0	0	0
09:45 AM - 10:00 AM	0	3	2	7	1	4	1	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	0	9	0	6	5	15	1	6	1	7	1	1	1	1
10:15 AM - 10:30 AM	1	6	1	5	3	9	0	6	1	7	3	3	1	0
10:30 AM - 10:45 AM	4	15	2	11	4	11	1	11	0	8	1	1	1	1
10:45 AM - 11:00 AM	3	11	2	9	2	10	6	7	0	9	0	2	1	0
11:00 AM - 11:15 AM	1	4	1	8	3	7	2	8	0	4	1	1	1	1
11:15 AM - 11:30 AM	1	4	0	9	0	6	2	9	1	8	2	4	0	0
11:30 AM - 11:45 AM	3	8	0	14	3	5	4	6	0	5	0	3	1	1
11:45 AM - 12:00 PM	1	6	0	5	0	5	1	10	2	1	4	4	1	3
12:00 PM - 12:15 PM	0	6	1	2	1	2	1	7	0	6	2	2	0	0
12:15 PM - 12:30 PM	0	8	0	5	1	5	0	5	1	5	0	1	0	0
12:30 PM - 12:45 PM	1	9	1	5	0	3	1	7	2	2	0	3	0	0
12:45 PM - 01:00 PM	1	4	2	5	1	7	1	10	1	5	2	2	1	5
01:00 PM - 01:15 PM	0	3	0	4	0	6	0	6	1	2	1	1	1	3
01:15 PM - 01:30 PM	3	3	1	3	3	6	0	4	1	9	1	5	1	2
01:30 PM - 01:45 PM	1	6	3	7	1	2	0	3	0	3	1	1	0	2
01:45 PM - 02:00 PM	2	7	0	2	0	5	0	4	4	3	0	1	3	4
02:00 PM - 02:15 PM	3	9	1	3	4	8	1	2	1	8	0	2	1	2
02:15 PM - 02:30 PM	2	3	3	8	0	1	4	1	0	6	0	5	0	5
02:30 PM - 02:45 PM	0	1	0	4	0	4	2	2	0	3	0	1	1	4
02:45 PM - 03:00 PM	3	3	1	5	1	4	2	4	1	3	0	0	2	2
03:00 PM - 03:15 PM	1	5	2	4	0	4	0	3	1	2	1	4	2	4
03:15 PM - 03:30 PM	1	1	1	3	1	6	1	7	2	7	1	5	1	2
03:30 PM - 03:45 PM	0	12	1	7	1	4	0	0	1	4	0	0	0	1
03:45 PM - 04:00 PM	1	7	2	5	0	3	1	7	2	9	0	1	1	1
04:00 PM - 04:15 PM	0	7	1	3	3	6	0	4	0	2	0	2	1	2
04:15 PM - 04:30 PM	1	11	0	4	2	14	1	8	2	5	0	1	0	3
04:30 PM - 04:45 PM	0	2	0	5	0	8	1	11	0	0	0	1	1	1
04:45 PM - 05:00 PM	1	6	0	3	0	7	0	5	0	1	0	6	0	1
05:00 PM - 05:15 PM	0	1	1	5	0	3	0	0	0	2	1	2	1	2
05:15 PM - 05:30 PM	0	3	1	3	1	3	0	1	0	0	0	0	0	1
05:30 PM - 05:45 PM	0	3	1	4	1	3	1	0	0	0	0	1	0	1
05:45 PM - 06:00 PM	0	2	1	4	0	8	0	1	0	0	0	1	0	0
06:00 PM - 06:15 PM	0	1	1	3	0	8	0	0	0	4	0	4	0	0
06:15 PM - 06:30 PM	1	4	0	0	1	6	0	2	2	4	2	1	2	1
06:30 PM - 06:45 PM	1	1	1	2	2	25	2	2	0	2	2	2	1	3
06:45 PM - 07:00 PM	0	0	1	2	2	8	0	0	0	0	0	0	0	0
07:00 PM - 07:15 PM	0	2	0	0	4	8	0	0	0	0	0	1	1	1
07:15 PM - 07:30 PM	0	0	0	2	1	2	0	0	0	0	0	0	0	0
07:30 PM - 07:45 PM	0	0	0	0	4	8	0	0	0	0	0	0	0	0
07:45 PM - 08:00 PM	0	0	0	0	1	2	0	0	0	0	0	0	0	0
08:00 PM - 08:15 PM	0	0	0	0	3	6	0	0	0	0	0	0	0	0
08:15 PM - 08:30 PM	0	0	1	0	1	3	0	0	0	0	0	0	0	0
08:30 PM - 08:45 PM	0	0	0	1	1	3	0	0	0	0	0	0	0	0
08:45 PM - 09:00 PM	0	2	0	0	2	2	0	0	0	0	0	3	0	0
09:00 PM - 09:15 PM	0	2	0	0	1	2	0	0	0	0	0	0	0	0
09:15 PM - 09:30 PM	0	3	0	1	0	2	0	0	0	3	0	0	0	2
09:30 PM - 09:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0
09:45 PM - 10:00 PM	0	1	0	0	1	1	0	0	0	0	0	0	1	0
10:00 PM - 10:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	3	1	1	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	1	5	0	0	0	0	1	0	0	1
10:45 PM - 11:00 PM	0	0	0	0	1	3	0	0	0	0	1	1	0	1
11:00 PM - 11:15 PM	0	2	0	2	2	8	0	0	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	2	5	0	0	0	0	0	0	0	0
11:30 PM - 11:45 PM	0	0	0	0	1	7	0	2	0	0	0	0	0	0
11:45 PM - 12:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0
Total 24-hour	39	227	36	217	87	348	40	201	57	186	22	102	33	111

HWAP Field Counts	Thursday, 2/24/2005		Friday, 2/25/2005		Saturday, 2/26/2005		Sunday, 2/27/2005		Monday, 2/28/2005		Tuesday, 3/01/2005		Wednesday, 3/02/2005	
	Through	Left Turn In	Through	Left Turn In	Through	Left Turn In	Through	Left Turn In	Through	Left Turn In	Through	Left Turn In	Through	Left Turn In
Farrington Hwy. EB	0	0	1	0	0	0	5	0	0	0	0	0	0	0
12:00 AM - 12:15 AM	0	0	0	0	0	0	3	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	1	0	0	0	0	10	2	1	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 01:00 AM	0	0	0	0	2	0	0	0	1	0	1	0	0	0
01:00 AM - 01:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0
01:15 AM - 01:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
01:30 AM - 01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 AM - 02:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	1
02:00 AM - 02:15 AM	0	0	0	1	0	0	1	1	0	1	0	0	0	0
02:15 AM - 02:30 AM	1	0	0	0	0	0	0	0	1	1	0	0	0	0
02:30 AM - 02:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0
02:45 AM - 03:00 AM	1	0	1	0	1	1	0	0	0	0	0	0	0	0
03:00 AM - 03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 AM - 03:30 AM	0	0	0	0	0	0	1	0	0	0	0	1	0	0
03:30 AM - 03:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0
03:45 AM - 04:00 AM	0	0	0	0	1	0	0	0	1	0	0	0	0	0
04:00 AM - 04:15 AM	0	0	1	0	1	0	0	0	0	0	1	0	0	0
04:15 AM - 04:30 AM	0	0	1	0	1	0	0	0	1	0	1	0	1	0
04:30 AM - 04:45 AM	0	0	1	0	2	0	0	0	0	0	0	0	4	0
04:45 AM - 05:00 AM	1	0	0	0	0	0	1	0	2	0	0	0	1	0
05:00 AM - 05:15 AM	0	0	0	0	1	0	0	0	0	0	1	0	0	0
05:15 AM - 05:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	2	1
05:30 AM - 05:45 AM	0	0	1	0	1	0	0	0	1	0	0	0	1	0
05:45 AM - 06:00 AM	2	0	1	1	0	0	0	0	0	0	3	0	1	0
06:00 AM - 06:15 AM	3	1	2	3	2	0	0	1	3	2	2	3	1	1
06:15 AM - 06:30 AM	4	1	3	2	1	3	1	0	1	1	5	1	7	2
06:30 AM - 06:45 AM	9	5	5	3	1	5	1	2	12	3	8	0	10	1
06:45 AM - 07:00 AM	9	5	13	2	0	1	1	0	15	2	8	0	9	3
07:00 AM - 07:15 AM	12	2	12	2	1	2	0	1	24	0	21	2	26	0
07:15 AM - 07:30 AM	29	0	29	5	1	2	0	3	29	4	29	0	22	1
07:30 AM - 07:45 AM	24	1	47	1	6	3	1	1	38	3	29	1	39	6
07:45 AM - 08:00 AM	40	2	47	5	1	1	5	0	18	3	10	4	15	1
08:00 AM - 08:15 AM	20	2	18	5	3	2	1	3	12	5	6	1	6	1
08:15 AM - 08:30 AM	18	2	5	3	3	3	3	3	9	3	6	4	6	4
08:30 AM - 08:45 AM	7	7	7	8	6	5	4	4	11	7	8	1	12	3
08:45 AM - 09:00 AM	8	5	9	4	3	7	1	2	4	1	7	3	7	3
09:00 AM - 09:15 AM	6	5	5	4	3	3	3	1	3	6	2	3	3	2
09:15 AM - 09:30 AM	4	4	7	2	3	3	2	4	6	6	2	0	8	1
09:30 AM - 09:45 AM	3	4	2	3	2	4	4	9	2	6	3	3	5	6
09:45 AM - 10:00 AM	4	9	3	7	2	4	5	7	10	3	5	2	1	1
10:00 AM - 10:15 AM	1	13	4	10	4	13	5	11	9	7	6	3	4	1
10:15 AM - 10:30 AM	4	12	11	12	3	16	10	15	5	10	1	4	4	10
10:30 AM - 10:45 AM	12	20	8	14	4	14	4	9	3	7	8	1	4	2
10:45 AM - 11:00 AM	10	13	9	8	7	13	1	15	9	7	4	4	3	2
11:00 AM - 11:15 AM	9	9	6	12	5	14	8	12	5	8	7	1	8	3
11:15 AM - 11:30 AM	6	5	6	11	8	5	8	15	6	8	6	1	3	3
11:30 AM - 11:45 AM	5	15	6	12	1	8	5	5	4	8	3	6	4	4
11:45 AM - 12:00 PM	10	5	13	6	4	8	5	12	4	8	4	2	3	3
12:00 PM - 12:15 PM	3	7	7	8	4	6	5	13	4	8	3	3	3	3
12:15 PM - 12:30 PM	7	11	6	5	5	6	6	8	9	8	2	6	6	3
12:30 PM - 12:45 PM	10	7	11	5	6	8	0	5	9	7	3	5	5	2
12:45 PM - 01:00 PM	5	7	5	7	7	10	2	11	9	7	5	3	5	3
01:00 PM - 01:15 PM	9	3	11	5	6	5	2	5	7	4	2	2	6	1
01:15 PM - 01:30 PM	3	4	13	6	6	4	6	7	7	3	1	2	5	0
01:30 PM - 01:45 PM	13	6	9	9	5	3	7	3	3	11	5	4	2	2
01:45 PM - 02:00 PM	8	3	9	4	4	7	3	8	12	7	5	5	4	4
02:00 PM - 02:15 PM	7	8	8	6	5	8	4	3	10	7	2	2	4	4
02:15 PM - 02:30 PM	6	6	1	4	4	4	8	7	13	4	5	2	4	4
02:30 PM - 02:45 PM	9	3	10	5	7	4	6	4	13	5	4	2	6	3
02:45 PM - 03:00 PM	6	3	15	6	5	6	12	5	12	5	6	7	8	3
03:00 PM - 03:15 PM	8	5	13	3	8	4	6	3	10	5	5	1	1	1
03:15 PM - 03:30 PM	10	3	8	3	12	5	9	4	12	6	5	5	2	3
03:30 PM - 03:45 PM	23	7	21	3	15	3	9	1	22	2	12	0	5	3
03:45 PM - 04:00 PM	24	6	17	3	16	3	11	5	17	2	5	0	9	8
04:00 PM - 04:15 PM	13	6	13	1	12	9	14	4	8	2	2	1	3	3
04:15 PM - 04:30 PM	8	2	18	3	27	10	20	4	5	3	9	1	8	4
04:30 PM - 04:45 PM	6	4	10	1	12	6	8	2	8	1	4	1	5	1
04:45 PM - 05:00 PM	9	9	9	0	9	2	5	2	5	2	4	4	7	1
05:00 PM - 05:15 PM	5	1	11	3	4	4	3	1	5	2	20	3	2	3
05:15 PM - 05:30 PM	3	2	6	3	5	1	5	1	6	2	13	0	1	3
05:30 PM - 05:45 PM	5	2	7	1	4	8	0	2	3	0	4	1	4	0
05:45 PM - 06:00 PM	25	2	3	2	4	10	4	0	6	0	0	2	4	0
06:00 PM - 06:15 PM	20	0	2	0	8	8	1	1	8	1	4	0	3	1
06:15 PM - 06:30 PM	2	0	4	0	5	10	3	1	1	1	4	0	1	1
06:30 PM - 06:45 PM	1	2	2	2	3	11	2	1	1	2	1	2	2	2
06:45 PM - 07:00 PM	1	0	7	1	18	28	2	0	3	0	0	2	8	0
07:00 PM - 07:15 PM	1	0	2	0	8	17	1	0	5	0	1	0	0	0
07:15 PM - 07:30 PM	1	0	5	1	9	5	3	0	1	0	3	1	3	0
07:30 PM - 07:45 PM	3	1	1	0	7	10	0	0	2	0	1	0	0	0
07:45 PM - 08:00 PM	3	0	1	1	9	6	1	0	0	0	3	0	2	0
08:00 PM - 08:15 PM	1	0	2	0	7	9	1	0	2	1	0	0	1	0
08:15 PM - 08:30 PM	1	0	1	2	3	4	0	0	3	0	0	0	3	0
08:30 PM - 08:45 PM	3	0	2	0	3	4	2	0	1	0	2	1	4	0
08:45 PM - 09:00 PM	3	0	2	0	3	4	4	0	3	0	2	1	3	0
09:00 PM - 09:15 PM	3	0	2	0	8	5	2	2	2	0	0	0	0	2
09:15 PM - 09:30 PM	1	0	3	2	13	1	0	0	1	1	1	0	4	0
09:30 PM - 09:45 PM	2	1	0	0	15	1	1	1	1	0	0	0	1	0
09:45 PM - 10:00 PM	2	2	0	0	4	3	0	0	1	0	0	0	5	0
10:00 PM - 10:15 PM	1	0	0	0	17	5	1	1	0	0	0	1	2	0
10:15 PM - 10:30 PM	1	0	0	0	10	4	2	1	1	0	0	0	0	0
10:30 PM - 10:45 PM	2	0	0	0	14	5	0	0	0	0	1	1	0	0
10:45 PM - 11:00 PM	0	1	0	0	12	5	1	1	0	1	2	2	1	3
11:00 PM - 11:15 PM	0	0	0	0	34	4	0	0	1	0	1	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	23	2	0	0	0	0	0	0	1	0
11:30 PM - 11:45 PM	0	0	0	0	5	2	0	0	0	0	0	0	0	0
11:45 PM - 12:00 AM	1	0	0	0	4	2	0	0	0	0	0	0	0	0
	540	265	514	243	526	431	287	248	493	224	385	130	389	137

HWAP Field Counts	Thursday, 2/24/2005		Friday, 2/25/2005		Saturday, 2/26/2005	
	Right Turn In	Through	Right Turn In	Through	Right Turn In	Through
Farrington Hwy. WB						
12:00 AM - 12:15 AM	0	15	0	11	0	16
12:15 AM - 12:30 AM	0	12	0	21	0	24
12:30 AM - 12:45 AM	0	14	0	8	0	18
12:45 AM - 01:00 AM	0	15	0	4	0	26
01:00 AM - 01:15 AM	0	5	0	7	0	18
01:15 AM - 01:30 AM	0	10	0	9	0	18
01:30 AM - 01:45 AM	0	13	0	13	0	20
01:45 AM - 02:00 AM	0	12	0	4	0	21
02:00 AM - 02:15 AM	0	7	0	6	0	10
02:15 AM - 02:30 AM	0	4	0	5	0	12
02:30 AM - 02:45 AM	0	4	0	9	0	24
02:45 AM - 03:00 AM	0	5	0	3	0	11
03:00 AM - 03:15 AM	0	8	0	5	0	8
03:15 AM - 03:30 AM	0	4	0	10	0	8
03:30 AM - 03:45 AM	0	11	0	8	0	10
03:45 AM - 04:00 AM	0	4	0	15	1	20
04:00 AM - 04:15 AM	1	11	1	19	0	12
04:15 AM - 04:30 AM	0	14	0	19	0	17
04:30 AM - 04:45 AM	1	30	1	23	0	17
04:45 AM - 05:00 AM	0	28	0	28	0	18
05:00 AM - 05:15 AM	0	32	1	39	0	24
05:15 AM - 05:30 AM	1	39	1	42	0	12
05:30 AM - 05:45 AM	2	79	0	78	1	38
05:45 AM - 06:00 AM	1	86	1	116	1	32
06:00 AM - 06:15 AM	0	110	1	123	0	48
06:15 AM - 06:30 AM	1	118	4	136	1	59
06:30 AM - 06:45 AM	2	109	2	112	2	48
06:45 AM - 07:00 AM	1	138	4	155	1	78
07:00 AM - 07:15 AM	4	123	2	132	0	66
07:15 AM - 07:30 AM	3	114	0	121	6	64
07:30 AM - 07:45 AM	8	138	3	119	3	59
07:45 AM - 08:00 AM	5	114	3	117	7	62
08:00 AM - 08:15 AM	4	80	5	85	3	73
08:15 AM - 08:30 AM	2	77	3	91	13	65
08:30 AM - 08:45 AM	2	85	3	80	7	70
08:45 AM - 09:00 AM	0	74	4	75	3	75
09:00 AM - 09:15 AM	7	75	2	81	2	92
09:15 AM - 09:30 AM	7	73	11	84	6	91
09:30 AM - 09:45 AM	5	74	0	79	8	102
09:45 AM - 10:00 AM	6	80	9	93	5	92
10:00 AM - 10:15 AM	5	98	12	60	8	113
10:15 AM - 10:30 AM	3	81	8	78	9	90
10:30 AM - 10:45 AM	1	32	8	85	6	113
10:45 AM - 11:00 AM	6	91	5	103	8	114
11:00 AM - 11:15 AM	5	75	2	112	11	101
11:15 AM - 11:30 AM	1	93	4	99	7	110
11:30 AM - 11:45 AM	7	86	5	100	4	116
11:45 AM - 12:00 PM	12	87	3	108	4	102
12:00 PM - 12:15 PM	10	111	4	125	2	110
12:15 PM - 12:30 PM	6	109	3	102	9	107
12:30 PM - 12:45 PM	2	120	3	142	4	119
12:45 PM - 01:00 PM	5	98	8	108	6	123
01:00 PM - 01:15 PM	9	132	2	134	2	121
01:15 PM - 01:30 PM	2	112	0	102	2	131
01:30 PM - 01:45 PM	6	125	3	125	6	109
01:45 PM - 02:00 PM	4	116	1	118	6	112
02:00 PM - 02:15 PM	2	130	2	135	4	121
02:15 PM - 02:30 PM	2	118	3	111	3	113
02:30 PM - 02:45 PM	4	117	1	139	7	129
02:45 PM - 03:00 PM	1	124	6	125	3	109
03:00 PM - 03:15 PM	7	145	4	124	7	125
03:15 PM - 03:30 PM	5	155	2	123	3	113
03:30 PM - 03:45 PM	1	128	1	153	1	115
03:45 PM - 04:00 PM	4	134	4	133	5	109
04:00 PM - 04:15 PM	1	122	1	132	2	104
04:15 PM - 04:30 PM	7	132	0	145	5	122
04:30 PM - 04:45 PM	1	127	3	164	4	131
04:45 PM - 05:00 PM	0	146	2	137	2	102
05:00 PM - 05:15 PM	1	113	1	137	4	116
05:15 PM - 05:30 PM	1	107	2	138	7	104
05:30 PM - 05:45 PM	2	106	0	116	11	83
05:45 PM - 06:00 PM	4	110	0	128	10	92
06:00 PM - 06:15 PM	1	103	0	121	18	85
06:15 PM - 06:30 PM	2	100	2	148	16	72
06:30 PM - 06:45 PM	3	98	1	118	16	95
06:45 PM - 07:00 PM	1	95	0	105	12	82
07:00 PM - 07:15 PM	1	94	2	108	10	88
07:15 PM - 07:30 PM	0	80	0	95	6	94
07:30 PM - 07:45 PM	3	77	0	107	9	79
07:45 PM - 08:00 PM	1	82	1	85	10	98
08:00 PM - 08:15 PM	0	72	1	86	1	65
08:15 PM - 08:30 PM	0	81	2	89	4	43
08:30 PM - 08:45 PM	0	84	0	60	.	.
08:45 PM - 09:00 PM	0	57	0	88	tube cut	tube cut
09:00 PM - 09:15 PM	0	63	2	74		
09:15 PM - 09:30 PM	3	45	0	78		
09:30 PM - 09:45 PM	0	54	0	50		
09:45 PM - 10:00 PM	0	38	1	62		
10:00 PM - 10:15 PM	0	28	0	66		
10:15 PM - 10:30 PM	1	30	1	29		
10:30 PM - 10:45 PM	0	32	0	36		
10:45 PM - 11:00 PM	0	24	0	33		
11:00 PM - 11:15 PM	0	23	1	39		
11:15 PM - 11:30 PM	0	20	0	36		
11:30 PM - 11:45 PM	0	14	0	34		
11:45 PM - 12:00 AM	0	14	0	22		
	204	7064	178	7754	344	5042

Service road @ gate	Thursday, 3/03/2005		Friday, 2/24/2005		Saturday, 2/26/2005		Sunday, 2/27/2005		Monday, 2/28/2005		Tuesday, 3/01/2005		Wednesday, 3/02/2005	
	westbound	eastbound	westbound	eastbound	westbound	eastbound	westbound	eastbound	westbound	eastbound	westbound	eastbound	westbound	eastbound
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	1	0	0	0	0	1	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	1	2	0	0	0	0	0	0
12:45 AM - 01:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0
01:00 AM - 01:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0
01:15 AM - 01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 AM - 01:45 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0
01:45 AM - 02:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0
02:00 AM - 02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 AM - 02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02:30 AM - 02:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0
02:45 AM - 03:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0
03:00 AM - 03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 AM - 03:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 AM - 03:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 AM - 04:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 AM - 04:15 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 AM - 04:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 AM - 04:45 AM	0	0	1	2	0	0	0	0	0	0	0	0	1	0
04:45 AM - 05:00 AM	0	0	0	1	0	0	0	0	0	2	0	0	0	0
05:00 AM - 05:15 AM	0	1	0	0	0	0	0	0	1	1	1	1	0	1
05:15 AM - 05:30 AM	1	1	0	0	0	0	0	0	0	0	0	1	0	0
05:30 AM - 05:45 AM	0	1	0	0	0	0	0	0	0	1	0	1	1	1
05:45 AM - 06:00 AM	2	0	2	1	2	1	0	0	0	0	0	2	2	2
06:00 AM - 06:15 AM	1	0	0	2	0	0	1	1	2	1	3	0	2	3
06:15 AM - 06:30 AM	2	2	4	0	3	3	4	0	3	3	0	1	2	1
06:30 AM - 06:45 AM	2	1	4	0	0	0	2	4	1	3	0	0	1	2
06:45 AM - 07:00 AM	0	4	4	4	3	3	1	0	2	4	1	0	2	2
07:00 AM - 07:15 AM	0	1	3	3	0	0	1	2	0	4	3	3	0	1
07:15 AM - 07:30 AM	0	4	0	0	1	1	0	2	0	5	1	0	1	4
07:30 AM - 07:45 AM	8	9	4	8	0	2	1	3	1	5	2	2	4	3
07:45 AM - 08:00 AM	4	4	0	1	2	4	4	1	1	4	0	1	3	2
08:00 AM - 08:15 AM	3	9	1	2	2	1	2	6	1	8	1	1	1	3
08:15 AM - 08:30 AM	8	2	1	5	3	3	4	3	3	3	3	3	1	1
08:30 AM - 08:45 AM	0	6	0	2	3	8	3	12	1	3	0	0	1	3
08:45 AM - 09:00 AM	3	6	0	3	2	18	0	3	0	0	1	2	2	2
09:00 AM - 09:15 AM	8	5	1	4	2	8	3	7	1	9	5	2	2	4
09:15 AM - 09:30 AM	2	7	4	4	4	3	2	5	5	7	1	0	2	3
09:30 AM - 09:45 AM	3	3	6	2	2	3	1	7	2	8	2	2	7	6
09:45 AM - 10:00 AM	4	9	5	14	4	5	9	3	7	7	2	6	2	1
10:00 AM - 10:15 AM	3	5	2	8	6	7	7	1	4	4	5	5	5	5
10:15 AM - 10:30 AM	2	2	4	7	1	2	1	2	3	5	3	3	4	4
10:30 AM - 10:45 AM	4	4	5	11	2	2	3	4	4	0	1	2	6	6
10:45 AM - 11:00 AM	2	5	12	4	2	4	3	3	4	4	4	0	4	0
11:00 AM - 11:15 AM	1	1	7	4	3	3	1	2	7	2	2	2	3	2
11:15 AM - 11:30 AM	5	6	3	4	1	2	3	5	4	5	2	0	2	2
11:30 AM - 11:45 AM	2	2	9	8	3	1	3	2	9	6	0	0	1	3
11:45 AM - 12:00 PM	6	2	1	2	3	2	7	1	1	1	2	2	3	2
12:00 PM - 12:15 PM	3	1	1	1	1	3	1	1	5	2	2	2	4	3
12:15 PM - 12:30 PM	4	3	3	5	2	3	2	4	7	3	0	0	1	6
12:30 PM - 12:45 PM	2	1	5	4	2	1	0	4	5	8	2	2	2	2
12:45 PM - 01:00 PM	3	3	3	2	1	3	2	1	4	2	1	1	7	2
01:00 PM - 01:15 PM	1	1	5	1	3	3	1	7	2	2	2	4	1	3
01:15 PM - 01:30 PM	2	2	8	8	4	2	3	2	3	1	1	2	2	1
01:30 PM - 01:45 PM	3	3	3	7	7	3	3	3	3	0	2	2	8	4
01:45 PM - 02:00 PM	7	4	0	2	1	1	0	0	6	5	1	1	6	1
02:00 PM - 02:15 PM	4	5	5	5	4	4	2	0	3	5	4	2	3	1
02:15 PM - 02:30 PM	2	0	7	1	1	2	3	3	4	2	2	5	5	3
02:30 PM - 02:45 PM	3	3	1	1	0	1	1	3	7	3	3	3	5	5
02:45 PM - 03:00 PM	1	3	2	2	3	3	2	3	1	1	1	5	0	0
03:00 PM - 03:15 PM	6	2	7	0	4	3	2	2	7	2	4	4	3	0
03:15 PM - 03:30 PM	6	11	4	3	5	1	1	1	3	2	4	3	0	1
03:30 PM - 03:45 PM	10	5	9	2	1	1	2	10	10	3	3	1	1	1
03:45 PM - 04:00 PM	15	3	7	1	2	4	4	4	13	2	2	0	1	1
04:00 PM - 04:15 PM	3	2	2	1	11	1	10	3	3	1	1	0	2	0
04:15 PM - 04:30 PM	0	0	2	1	14	9	15	4	4	1	1	1	1	0
04:30 PM - 04:45 PM	4	2	5	4	7	4	3	4	1	1	3	1	1	0
04:45 PM - 05:00 PM	4	4	4	2	11	5	6	1	6	4	3	7	0	1
05:00 PM - 05:15 PM	3	2	4	1	3	2	1	0	1	1	1	2	1	1
05:15 PM - 05:30 PM	7	4	4	1	3	2	2	0	0	5	0	1	2	0
05:30 PM - 05:45 PM	6	1	6	4	4	3	7	2	1	0	1	2	0	0
05:45 PM - 06:00 PM	1	1	5	3	5	6	3	0	2	2	1	0	0	0
06:00 PM - 06:15 PM	2	1	5	0	6	4	0	0	0	0	2	0	0	0
06:15 PM - 06:30 PM	1	0	0	1	4	3	1	0	2	1	4	1	1	0
06:30 PM - 06:45 PM	3	0	1	0	6	3	1	0	3	1	1	0	0	0
06:45 PM - 07:00 PM	1	0	12	1	3	2	1	0	2	0	0	0	0	0
07:00 PM - 07:15 PM	0	0	0	0	1	1	0	1	0	2	2	1	0	0
07:15 PM - 07:30 PM	0	0	0	0	2	1	1	0	0	0	0	0	0	0
07:30 PM - 07:45 PM	0	0	0	0	2	1	0	0	2	0	0	0	0	0
07:45 PM - 08:00 PM	1	0	0	0	0	0	0	0	2	0	0	0	0	0
08:00 PM - 08:15 PM	1	0	0	0	1	2	0	0	0	0	0	0	0	0
08:15 PM - 08:30 PM	1	0	0	0	3	2	0	0	0	0	2	0	0	0
08:30 PM - 08:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:45 PM - 09:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0
09:00 PM - 09:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 PM - 09:30 PM	0	0	0	0	1	0	0	0	2	0	0	0	1	0
09:30 PM - 09:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM - 11:00 PM	2	3	2	0	0	0	0	1	0	0	0	0	0	0
11:00 PM - 11:15 PM	2	0	1	0	12	2	0	0	1	1	0	0	0	0
11:15 PM - 11:30 PM	0	1	0	0	3	3	0	0	0	0	0	0	0	0
11:30 PM - 11:45 PM	0	0	0	0	2	3	1	0	0	0	0	0	0	0
11:45 PM - 12:00 AM	0	0	0	0	2	2	0	0	0	0	0	0	0	0
	191	175	199	171	217	206	145	134	192	175	105	95	116	112

**TWO-WAY STOP CONTROL SUMMARY**

General Information			Site Information					
Analyst	JN		Intersection	HWAP Exit				
Agency/Co.	Julian Ng, Inc.		Jurisdiction					
Date Performed	3/11/2005		Analysis Year	2005				
Analysis Time Period	PM Peak Hour							
Project Description Hawaiian Waters Adventure Park (HWAP)								
East/West Street: Farrington Highway			North/South Street: HWAP driveway					
Intersection Orientation: East-West			Study Period (hrs): 0.25					
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	0	55	0	0	585	0		
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89		
Hourly Flow Rate (veh/h)	0	61	0	0	657	0		
Proportion of heavy vehicles, P <sub>HV</sub>	0	--	--	0	--	--		
Median type	Two Way Left Turn Lane							
RT Channelized?			0			0		
Lanes	0	1	0	0	1	0		
Configuration		T			T			
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	0	0	0	45	0	45		
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89		
Hourly Flow Rate (veh/h)	0	0	0	50	0	50		
Proportion of heavy vehicles, P <sub>HV</sub>	0	0	0	5	0	5		
Percent grade (%)	0			0				
Flared approach		N			N			
Storage		0			0			
RT Channelized?			0			0		
Lanes	0	0	0	1	0	1		
Configuration				L		R		
Control Delay, Queue Length, Level of Service								
Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration						L		R
Volume, v (vph)						50		50
Capacity, c <sub>m</sub> (vph)						447		460
v/c ratio						0.11		0.11
Queue length (95%)						0.38		0.36
Control Delay (s/veh)						14.1		13.8
LOS						B		B
Approach delay (s/veh)	--	--				13.9		
Approach LOS	--	--				B		



TWO-WAY STOP CONTROL SUMMARY								
<b>General Information</b>				<b>Site Information</b>				
Analyst	JN			Intersection	HWAP entrance			
Agency/Co.	Julian Ng, Inc.			Jurisdiction				
Date Performed	3/11/2005			Analysis Year	2005			
Analysis Time Period	PM Peak Hour							
Project Description Hawaiian Waters Adventure Park (HWAP)								
East/West Street: Farrington Highway				North/South Street: HWAP driveway				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
<b>Vehicle Volumes and Adjustments</b>								
<b>Major Street</b>	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	35	70	0	0	575	25		
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89		
Hourly Flow Rate (veh/h)	39	78	0	0	646	28		
Proportion of heavy vehicles, P <sub>HV</sub>	0	--	--	0	--	--		
Median type	Two Way Left Turn Lane							
RT Channelized?			0			0		
Lanes	1	1	0	0	1	1		
Configuration	L	T			T	R		
Upstream Signal		0			0			
<b>Minor Street</b>	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	0	0	0	5	0	10		
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89		
Hourly Flow Rate (veh/h)	0	0	0	5	0	11		
Proportion of heavy vehicles, P <sub>HV</sub>	0	0	0	5	0	5		
Percent grade (%)	0			0				
Flared approach		N			N			
Storage		0			0			
RT Channelized?			0			0		
Lanes	0	0	0	1	0	1		
Configuration				L		R		
<b>Control Delay, Queue Length, Level of Service</b>								
Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
Volume, v (vph)	39					5		11
Capacity, c <sub>m</sub> (vph)	927					426		466
v/c ratio	0.04					0.01		0.02
Queue length (95%)	0.13					0.04		0.07
Control Delay (s/veh)	9.1					13.6		12.9
LOS	A					B		B
Approach delay (s/veh)	--	--				13.1		
Approach LOS	--	--				B		

TWO-WAY STOP CONTROL SUMMARY								
<b>General Information</b>			<b>Site Information</b>					
Analyst	JN		Intersection	HWAP exit				
Agency/Co.	Julian Ng, Inc.		Jurisdiction					
Date Performed	7/14/2005		Analysis Year	2010				
Analysis Time Period	2010 PM Peak Hour							
Project Description Hawaiian Waters Adventure Park								
East/West Street: Farrington Highway			North/South Street: HWAP exit					
Intersection Orientation: East-West			Study Period (hrs): 0.25					
<b>Vehicle Volumes and Adjustments</b>								
<b>Major Street</b>	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	0	300	0	0	840	0		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate (veh/h)	0	333	0	0	933	0		
Proportion of heavy vehicles, P <sub>HV</sub>	0	-	-	0	-	-		
Median type	Two Way Left Turn Lane							
RT Channelized?			0			0		
Lanes	0	1	0	0	1	0		
Configuration		T			T			
Upstream Signal		0			0			
<b>Minor Street</b>	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	0	0	0	170	0	40		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate (veh/h)	0	0	0	188	0	44		
Proportion of heavy vehicles, P <sub>HV</sub>	0	0	0	2	0	2		
Percent grade (%)	0			0				
Flared approach		N			N			
Storage		0			0			
RT Channelized?			0			0		
Lanes	0	0	0	1	0	1		
Configuration				L		R		
<b>Control Delay, Queue Length, Level of Service</b>								
Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration						L		R
Volume, v (vph)						188		44
Capacity, c <sub>m</sub> (vph)						302		323
v/c ratio						0.62		0.14
Queue length (95%)						3.89		0.47
Control Delay (s/veh)						34.7		17.9
LOS						D		C
Approach delay (s/veh)	--	--				31.5		
Approach LOS	--	--				D		

TWO-WAY STOP CONTROL SUMMARY							
<b>General Information</b>				<b>Site Information</b>			
Analyst	JN			Intersection	HWAP entrance		
Agency/Co.	Julian Ng, Inc.			Jurisdiction			
Date Performed	7/14/2005			Analysis Year	2010		
Analysis Time Period	2010 PM Peak Hour						
Project Description Hawaiian Waters Adventure Park							
East/West Street: Farrington Highway				North/South Street: HWAP entrance			
Intersection Orientation: East-West				Study Period (hrs): 0.25			
<b>Vehicle Volumes and Adjustments</b>							
<b>Major Street</b>	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	160	275	35	70	745	30	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly Flow Rate (veh/h)	173	298	38	76	809	32	
Proportion of heavy vehicles, P <sub>HV</sub>	2	--	--	2	--	--	
Median type	Undivided						
RT Channelized?			0			0	
Lanes	1	1	0	1	1	0	
Configuration	L		TR	L		TR	
Upstream Signal		0			0		
<b>Minor Street</b>	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	70	0	75	60	0	25	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly Flow Rate (veh/h)	76	0	81	65	0	27	
Proportion of heavy vehicles, P <sub>HV</sub>	2	2	2	2	2	2	
Percent grade (%)	0			0			
Flared approach		N			N		
Storage		0			0		
RT Channelized?			0			0	
Lanes	0	1	1	0	1	1	
Configuration	LT		R	LT		R	
<b>Control Delay, Queue Length, Level of Service</b>							
Approach	EB	WB	Northbound			Southbound	
Movement	1	4	7	8	9	10	11
Lane Configuration	L	L	LT		R	LT	R
Volume, v (vph)	173	76	76		81	65	27
Capacity, c <sub>m</sub> (vph)	794	1223	57		724	53	372
v/c ratio	0.22	0.06	1.33		0.11	1.23	0.07
Queue length (95%)	0.83	0.20	6.66		0.38	5.74	0.23
Control Delay (s/veh)	10.8	8.1	351.8		10.6	324.1	15.4
LOS	B	A	F		B	F	C
Approach delay (s/veh)	--	--	175.8			233.5	
Approach LOS	--	--	F			F	

TWO-WAY STOP CONTROL SUMMARY							
<b>General Information</b>				<b>Site Information</b>			
Analyst	JN			Intersection	HWAP entrance		
Agency/Co.	Julian Ng, Inc.			Jurisdiction			
Date Performed	7/14/2005			Analysis Year	2010		
Analysis Time Period	2010 PM Peak Hour						
Project Description Hawaiian Waters Adventure Park							
East/West Street: Farrington Highway				North/South Street: HWAP entrance			
Intersection Orientation: East-West				Study Period (hrs): 0.25			
<b>Vehicle Volumes and Adjustments</b>							
<b>Major Street</b>	<b>Eastbound</b>			<b>Westbound</b>			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	85	305	45	85	950	10	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly Flow Rate (veh/h)	89	321	47	89	1000	10	
Proportion of heavy vehicles, P <sub>HV</sub>	2	--	--	2	--	--	
Median type	Undivided						
RT Channelized?			0				0
Lanes	1	1	0	1	1		0
Configuration	L		TR	L			TR
Upstream Signal		0			0		
<b>Minor Street</b>	<b>Northbound</b>			<b>Southbound</b>			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	85	0	95	50	0	25	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly Flow Rate (veh/h)	89	0	100	52	0	26	
Proportion of heavy vehicles, P <sub>HV</sub>	2	2	2	2	2	2	
Percent grade (%)	0			0			
Flared approach		N			N		
Storage		0			0		
RT Channelized?			0				0
Lanes	0	1	1	0	1	1	
Configuration	LT		R	LT		R	
<b>Control Delay, Queue Length, Level of Service</b>							
Approach	EB	WB	Northbound		Southbound		
Movement	1	4	7	8	9	10	11
Lane Configuration	L	L	LT		R	LT	R
Volume, v (vph)	89	89	89		100	52	26
Capacity, c <sub>m</sub> (vph)	686	1191	55		699	49	293
v/c ratio	0.13	0.07	1.62		0.14	1.06	0.09
Queue length (95%)	0.44	0.24	8.28		0.50	4.61	0.29
Control Delay (s/veh)	11.0	8.3	468.4		11.0	280.1	18.5
LOS	B	A	F		B	F	C
Approach delay (s/veh)	--	--	226.4		192.9		
Approach LOS	--	--	F		F		

TWO-WAY STOP CONTROL SUMMARY								
<b>General Information</b>				<b>Site Information</b>				
Analyst	JN			Intersection	HWAP exit			
Agency/Co.	Julian Ng, Inc.			Jurisdiction				
Date Performed	7/14/2005			Analysis Year	2010			
Analysis Time Period	2010 PM Peak Hour							
Project Description Hawaiian Waters Adventure Park								
East/West Street: Farrington Highway				North/South Street: HWAP exit				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
<b>Vehicle Volumes and Adjustments</b>								
<b>Major Street</b>	<b>Eastbound</b>			<b>Westbound</b>				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	0	300	0	0	840	0		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate (veh/h)	0	333	0	0	933	0		
Proportion of heavy vehicles, P <sub>HV</sub>	0	--	--	0	--	--		
Median type	Two Way Left Turn Lane							
RT Channelized?			0				0	
Lanes	0	1	0	0	1	0		
Configuration		T			T			
Upstream Signal		0			0			
<b>Minor Street</b>	<b>Northbound</b>			<b>Southbound</b>				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	0	0	0	170	0	40		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate (veh/h)	0	0	0	188	0	44		
Proportion of heavy vehicles, P <sub>HV</sub>	0	0	0	2	0	2		
Percent grade (%)	0			0				
Flared approach		N			N			
Storage		0			0			
RT Channelized?			0			0		
Lanes	0	0	0	1	0	1		
Configuration				L		R		
<b>Control Delay, Queue Length, Level of Service</b>								
<b>Approach</b>	<b>EB</b>	<b>WB</b>	<b>Northbound</b>			<b>Southbound</b>		
Movement	1	4	7	8	9	10	11	12
Lane Configuration						L		R
Volume, v (vph)						188		44
Capacity, c <sub>m</sub> (vph)						302		323
v/c ratio						0.62		0.14
Queue length (95%)						3.89		0.47
Control Delay (s/veh)						34.7		17.9
LOS						D		C
Approach delay (s/veh)	--	--				31.5		
Approach LOS	--	--				D		

**TWO-WAY STOP CONTROL SUMMARY**

General Information			Site Information					
Analyst	JN		Intersection	HWAP exit				
Agency/Co.	Julian Ng, Inc.		Jurisdiction					
Date Performed	7/14/2005		Analysis Year	2010				
Analysis Time Period	2010 PM Peak Hour							
Project Description <i>Hawaiian Waters Adventure Park</i>								
East/West Street: <i>Farrington Highway</i>			North/South Street: <i>HWAP exit</i>					
Intersection Orientation: <i>East-West</i>			Study Period (hrs): <i>0.25</i>					
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	0	290	0	0	1060	0		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly Flow Rate (veh/h)	0	305	0	0	1115	0		
Proportion of heavy vehicles, P <sub>HV</sub>	0	-	-	0	-	-		
Median type	Two Way Left Turn Lane							
RT Channelized?			0			0		
Lanes	0	1	0	0	1	0		
Configuration		T			T			
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	0	0	0	130	0	30		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly Flow Rate (veh/h)	0	0	0	136	0	31		
Proportion of heavy vehicles, P <sub>HV</sub>	0	0	0	2	0	2		
Percent grade (%)	0			0				
Flared approach		N			N			
Storage		0			0			
RT Channelized?			0			0		
Lanes	0	0	0	1	0	1		
Configuration				L		R		
Control Delay, Queue Length, Level of Service								
Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration						L		R
Volume, v (vph)						136		31
Capacity, c <sub>m</sub> (vph)						254		253
v/c ratio						0.54		0.12
Queue length (95%)						2.89		0.41
Control Delay (s/veh)						34.4		21.2
LOS						D		C
Approach delay (s/veh)	-	-				32.0		
Approach LOS	-	-				D		

TWO-WAY STOP CONTROL SUMMARY									
<b>General Information</b>					<b>Site Information</b>				
Analyst	JN				Intersection				
Agency/Co.	Julian Ng, Inc.				Jurisdiction				
Date Performed	7/14/2005				Analysis Year	2010			
Analysis Time Period	2010 PM Peak Hour								
Project Description: Hawaiian Waters Adventure Park					North/South Street: HWAP entrance				
East/West Street: Farrington Highway					Study Period (hrs): 0.25				
Intersection Orientation: East-West									
<b>Vehicle Volumes and Adjustments</b>									
<b>Major Street</b>	Eastbound			Westbound					
Movement	1	2	3	4	5	6			
	L	T	R	L	T	R			
Volume (veh/h)	160	310	0	0	815	30			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92			
Hourly Flow Rate (veh/h)	173	336	0	0	885	32			
Proportion of heavy vehicles, P <sub>HV</sub>	2	-	-	2	-	-			
Median type	Two Way Left Turn Lane								
RT Channelized?			0			0			
Lanes	1	1	0	0	1	0	TR		
Configuration	L	T				0			
Upstream Signal		0							
<b>Minor Street</b>	Northbound			Southbound					
Movement	7	8	9	10	11	12			
	L	T	R	L	T	R			
Volume (veh/h)	0	0	0	60	0	25			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92			
Hourly Flow Rate (veh/h)	0	0	0	65	0	27			
Proportion of heavy vehicles, P <sub>HV</sub>	2	2	2	2	2	2			
Percent grade (%)	0			0					
Flared approach		N			N				
Storage		0			0				
RT Channelized?			0			0			
Lanes	0	0	0	0	1	1			
Configuration				LT		R			
<b>Control Delay, Queue Length, Level of Service</b>									
<b>Approach</b>	EB	WB	Northbound			Southbound			
Movement	1	4	7	8	9	10	11	12	
Lane Configuration	L					LT		R	
Volume, v (vph)	173					65		27	
Capacity, c <sub>m</sub> (vph)	744					220		337	
v/c ratio	0.23					0.30		0.08	
Queue length (95%)	0.90					1.19		0.26	
Control Delay (s/veh)	11.3					28.1		16.6	
LOS	B					D		C	
Approach delay (s/veh)	-	-				24.7			
Approach LOS	-	-				C			

TWO-WAY STOP CONTROL SUMMARY								
<b>General Information</b>			<b>Site Information</b>					
Analyst	JN		Intersection					
Agency/Co.	Julian Ng, Inc.		Jurisdiction					
Date Performed	7/14/2005		Analysis Year		2010			
Analysis Time Period	2010 PM Peak Hour							
Project Description Hawaiian Waters Adventure Park								
East/West Street: Farrington Highway			North/South Street: HWAP entrance					
Intersection Orientation: East-West			Study Period (hrs): 0.25					
<b>Vehicle Volumes and Adjustments</b>								
<b>Major Street</b>	<b>Eastbound</b>			<b>Westbound</b>				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	85	335	0	0	1035	10		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly Flow Rate (veh/h)	89	352	0	0	1089	10		
Proportion of heavy vehicles, P <sub>HV</sub>	2	-	-	2	-	-		
Median type	Two Way Left Turn Lane							
RT Channelized?			0			0		
Lanes	1	1	0	0	1	1		
Configuration	L	T			T	R		
Upstream Signal		0			0			
<b>Minor Street</b>	<b>Northbound</b>			<b>Southbound</b>				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	0	0	0	65	0	25		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly Flow Rate (veh/h)	0	0	0	68	0	26		
Proportion of heavy vehicles, P <sub>HV</sub>	2	2	2	2	2	2		
Percent grade (%)	0			0				
Flared approach		N			N			
Storage		0			0			
RT Channelized?			0			0		
Lanes	0	0	0	1	0	1		
Configuration				L		R		
<b>Control Delay, Queue Length, Level of Service</b>								
<b>Approach</b>	<b>EB</b>	<b>WB</b>	<b>Northbound</b>			<b>Southbound</b>		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
Volume, v (vph)	89					68		26
Capacity, c <sub>m</sub> (vph)	635					222		262
v/c ratio	0.14					0.31		0.10
Queue length (95%)	0.49					1.24		0.33
Control Delay (s/veh)	11.6					28.2		20.2
LOS	B					D		C
Approach delay (s/veh)	-	-				26.0		
Approach LOS	-	-				D		



**APPENDIX B**

September 2004

*Phase I Environmental Site Assessment  
Hawaiian Waters Adventure Park  
Kapolei, O`ahu, Hawai`i*



*Prepared By:*



*Prepared For:*

*Hawaiian Waters Adventure Park  
400 Farrington Hwy  
Kapolei, HI 96707*

*Under Subcontract to:  
Environmental Planning Solutions, LLC.*

**Phase I Environmental Site Assessment  
Hawaiian Waters Adventure Park**

**Kapolei, O`ahu, Hawai`i**

**Prepared for:  
Hawaiian Waters Adventure Park  
400 Farrington Highway  
Kapolei, Hawaii 96707**

**Prepared by:  
Environet Inc.,  
2850 Pa`a Street, Suite 212  
Honolulu, Hawai`i 96819**

**Under Subcontract to:  
Environmental Planning Solutions, LLC  
945 Makaiwa St.  
Honolulu, Hawaii 96816**

**September 2004**

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## *List of Acronyms and Abbreviations*

°F	Degrees Fahrenheit
AST	Aboveground Storage Tank
ASTM	American Society of Testing and Materials
CCH	City and County of Honolulu
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CO <sub>2</sub>	Carbon dioxide
CORRACTS	Corrective Action Report
DOD	Department of Defense
DOH	State of Hawaii Department of Health
DPP	Department of Planning and Permitting
EDR	Environmental Data Resources
EI	Environet, Incorporated
ERNS	Emergency Response Notification System
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FINDS	Facility Index System/Facility Identification Initiative
FTTS	FIFRA/TSCA Tracking System
HCl	Hydrochloric Acid
HEER	Hazard Evaluation and Emergency Response
HEPCRA	Hawai'i Emergency Planning Community Right-to-Know Act
HFD	Honolulu Fire Department
HMIRS	Hazardous Material Information Reporting System
LEPC	Local Emergency Planning Committee
LUST	Leaking Underground Storage Tank
LQG	Large Quantity Generator
MLTS	Material Licensing Tracking System
NPL	Federal National Priorities List
PADS	Polychlorinated biphenyl (PCB) Activity Database System
PCB	Polychlorinated Biphenyls
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
ROD	Record of Decision
RPAD	Real Property Assessment Division
SHWS	State Hazardous Waste Sites
SPILLS	Release Notifications
SQG	Small Quantity Generator
SWLF	State Permitted Solid Waste Landfills, Incinerators, or Transfer Stations.
TMK	Tax Map Key
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act

TSDf	Treatment, Storage, and Disposal Facility
UIC	Underground Injection Control
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank

## ***Section 1 Introduction***

### ***1.1 Project Background***

Environet, Incorporated (EI) was contracted by Environmental Planning Solutions, LLC to conduct an Environmental Site Assessment (ESA) for a property located in Kapolei, Oahu, Hawai'i. The project site consists of a parcel of land identified as Tax Map Key (TMK) number 9-1-016:009 (heretofore referred to as the Property). This Phase I ESA was performed in accordance with the scope of services agreed upon on September 04, 2004. We understand that the ESA is being undertaken because the Hawaiian Waters Adventure Park plans to expand their current operations.

### ***1.2 Project Objective***

The objective of the ESA was to identify "recognized environmental conditions" that may exist on the Property. The American Society of Testing and Materials (ASTM) Practice E 1527-00, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, defines recognized environmental conditions as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property." The extent of research to identify recognized environmental conditions is limited by the scope of services.



## *Section 2      Scope of Services*

The scope of services conducted for this Phase I ESA consisted of the following tasks:

- **Site Reconnaissance** - EI staff experienced in conducting hazardous material surveys and environmental assessments performed a visual reconnaissance of the Property and surrounding areas. Environmental conditions and current activities on the Property and adjoining properties were observed. Visual observations were made to establish an inventory of potential contaminant sources on and adjacent to the Property. Photographs were taken to document observed conditions.
- **Records Review** - Reasonably ascertainable information and public records about the Property and surrounding areas were requested or obtained from federal, state and local government agencies. This information was used to assess whether current or past usage of the Property or the immediate surrounding areas may have caused or increased the potential for environmental contamination. The records review was based on ASTM Practice E 1527-00.

EI also conducted a search for historic aerial photographs, United States Geological Survey (USGS) topographic maps, military photomaps, ownership/lease and land use records, and local street maps and directories.

Requests were made to the Honolulu Fire Department and Local Emergency Planning Committee (LEPC) for hazardous materials spill incident records and reporting records to identify past releases and potential future release concerns on or near the Property.

Public agency staff and other knowledgeable persons were interviewed regarding past and present site, and adjoining property usages in order to supplement the record review.

- **Evaluation, Analysis and Report** - Information collected during the above activities was evaluated and analyzed.

This ESA report summarizes our findings and presents our conclusions. The ESA was performed in accordance with ASTM Practice E 1527-00; no exceptions to or deletions from the Practice were made.

## ***Section 3 Site Description***

### ***3.1 Location and Topography***

The project site is located off Farrington Highway in Kapolei, Oahu, Hawai'i (Figure 3-1). The Property consists of a parcel of land identified as TMK number (1) 9-1-016:009 (Figure 3-2). The Property encompasses approximately 30.3 acres of land and contains the Hawaiian Waters Adventure Park.

The topography of the area is sloping from north to south, with an average elevation of approximately 128 feet above mean sea level on the Property.

### ***3.2 Site Improvements***

The Property consists of a 25-acre water park and an adjacent parking lot. The Park was constructed in 1998/1999 and consists of 11 water slides, two restaurants, two stages, a volleyball court, an arcade and several shaded picnic areas. Pool cleaning systems and trailers used as administrative offices are also present on the Property. About 5 acres in the northeastern portion of the Property is currently undeveloped.

### ***3.3 Environmental Setting***

#### ***3.3.1 Geology***

The Hawaiian Archipelago is a chain of seamounts and islands in the North Pacific extending 1,616 miles west by northwest from the largest island of Hawai'i. Volcanic rocks are the dominant rock type and consist of basaltic flows, caldera and dike complexes, and pyroclastics. Sediments include limestone reefs and dunes, beach and dune sands, and alluvium deposited near present day and ancient shorelines, typical of tropical to subtropical atoll cycles. Some ancient limestone reefs and dunes are found inland due to climatic and sea level fluctuations.

The island of Oahu, the third largest of the Hawaiian chain, was formed by two volcanoes, Koolau and Waianae. The older Waianae volcano was formed from a caldera and rift zones found on the western portion of the island. These flows range from 2.5 to 3.1 million years old and are overlain by the 1.8 to 2.7 million year old flows of the Koolau volcano (Doell and Dalrymple, 1973).





Rocks of the Koolau volcano are found on the eastern and northeastern portion of the island and consist mostly of hundreds of thin basalt flows three to nine feet thick. The Koolau flows erupted from a main caldera in the vicinity of present day Kailua, along with two main rift zones extending northwest and southeast of the caldera. Following these main volcanic events, stream erosion dissected the island and created two belts of mountain ranges, the northwest oriented Waianae Range on the west side of the island and the southeast oriented Koolau Range on the east side of the island.

Less than 600,000 years ago during a time known as the Pleistocene period, a third and violent series of approximately fifty eruptions in the south interrupted the erosional period. Tuff and pyroclastics known as the Honolulu Formation were deposited by these eruptions as recent as 12,000 years ago (Lanphere and Dalrymple, 1980). Fringing and barrier coral reefs and beach sediments (lithified calcareous dunes) formed during the later volcanics and are interlayered with rocks of the Honolulu Formation. Deposition of calcareous sediments continued through the Pleistocene period but was greatest during a warm, interglacial period around 500,000 years ago.

Limestone reefs formed during this period, when sea level was about 120 feet higher than present, are now found inland as "emerged" reefs (Stearns, 1985). The constantly fluctuating sea level during the Pleistocene period created shore platforms and cut notches into ancient reefs and lithified dunes leaving behind evidence of up to 35 high sea level stands (Stearns, 1985). Examples of ancient shorelines are found throughout the Hawaiian Islands, but are most prominent on Oahu.

The Property is situated along the lower southeastern slope of the Waianae mountain range, off Farrington Highway. The Property lies on the edge of the Ewa Plain, which was formed around 500,000 years ago during the Yarmouth interglacial period when sea level was 95 to 100 feet above present sea level (Stearns, 1935). It was during this time that extensive coral reefs were laid down creating the coral plain that makes up Ewa.

### **3.3.2 Hydrogeology**

The principal reservoirs of groundwater in Oahu are in basaltic lava flows that were extruded above sea level. Lava extruded above water is generally thinly bedded, highly clinkery, and highly permeable. Because the Waianae and Koolau volcanic domes have sunk 1,200 feet or more (Macdonald and Abbott, 1970), these subaerial flows generally are thinly bedded, highly clinkery, and highly permeable. In contrast, flows extruded in water are likely to be more massive, less clinkery, and less permeable. The regional permeability of lava, whether high or low initially, is significantly reduced when they are intruded by dikes. The reduction in

permeability is a function of the number and volume of the dike intrusions and the geometry of the dikes (Takasaki and Mink, 1985).

Groundwater beneath the Property is a part of the Pearl Harbor aquifer sector and the Ewa aquifer system. Groundwater beneath the Property is found in a basal, unconfined flank aquifer. The aquifer consists of fresh water with a chlorine content below 250 mg/l and is currently used for drinking water purposes. The aquifer is considered irreplaceable with a high vulnerability to contamination (Mink and Lau, 1990). Based on information from wells located in the area, depth to groundwater in the vicinity of the Property is approximately 100 feet (EDR, 2004).

The primary source of recharge to this volcanic basal aquifer is from infiltration of rainfall and stream runoff that occurs in the inland portions of the Koolau range. The hydraulic head levels measured in these volcanic basal aquifers result from the alluvial material in the caprock *retarding the seaward flow of freshwater*. In the inland portions of Pearl Harbor to the east of the project area, basal groundwater can be observed discharging directly to the ocean via a series of springs through localized breaches in the caprock.

The State of Hawaii Department of Health established the Underground Injection Control (UIC) line to regulate the injection of wastewater into the ground in order to protect Hawaii's underground drinking waters from contamination. The UIC line is used to determine the level of protectiveness afforded an aquifer as reflected by water quality standard criteria. In general, wastewater injection is prohibited mauka of the UIC line, but is allowed makai of the UIC line. Therefore, for sites located above the UIC line, the more protective drinking water standards are used as the basis for protectiveness. For sites located below the UIC line, the saltwater quality standards are used as a basis for protectiveness (State of Hawaii DOH, 1992). The Property lies mauka of and is thus above the UIC line.

### ***3.3.3 Surface Hydrology***

A search of FEMA flood insurance maps indicated that the Property lies outside the 100 and 500 year flood zones (FEMA, 1990). A reservoir, labeled as a federal wetland, is located about ¼ of a mile east of the Property (EDR 2004).

### ***3.3.4 Soils***

The majority of soil in the vicinity of the Property is classified as Ewa silty clay loam with a 3 to 6 percent slope (EaB). Ewa soils are well drained. Permeability is moderate and runoff is slow. Erosion hazard is slight (Foote et. al, 1972). The western portion of the Property is defined as stony steep land (rSY). This area has a steeper slope than the Ewa series type soils found on other

portions on the Property, and the ground cover consists of mostly stones and boulders with some soil providing foothold for plants and other vegetation in the area (Foote et. al, 1972).

The northeast portion if the adventure park is built in the former quarry and soil was brought in from off site by Campbell Earth Products. Gravel was also brought in from off site by Grace Pacific Co.

### **3.3.5 Climate**

The climate in the region of Kapolei is warm and relatively dry. Rainfall varies from approximately 3 inches per month during the winter, to less than 1 inch per month during the summer. Mean annual rainfall at the Property is approximately 19 inches. The average daily minimum and maximum temperature in January is 63°F and 81°F, and the average daily minimum and maximum temperature in August is 71°F and 89°F (WRCC, 2004).

---

## *Section 4 History of Site Uses*

Investigation into the history of the Property and adjoining properties was accomplished by reviewing historical aerial photographs, topographic maps, and ownership and land use records. The following summarizes the site history and findings of each available record search.

### *4.1 Topographic Maps*

U.S. Geological Survey (USGS) topographic maps dated 1953, 1962, 1968, 1983 and 1998; a U.S. Army Corps of Engineers (USACE) Survey Map dated 1909-1913; a USACE Terrain map dated 1943; USGS orthophotographic maps dated 1944 and 1977; and a City and County of Honolulu Planning Department Map dated 1969 were reviewed for indication of topographic and land use changes leading to potential environmental impact on the project site and its surrounding areas.

From the earliest available records, the Property is designated as plantation land (USACE 1909-1913) (Figure 4-1). Waianae Road, later identified as Farrington Highway (Highway 93), appears to run south of the Property (USGS 1927-1930). A railway later identified as the Ewa Plantation railway is present further south of the Property. The Property and immediate surrounding areas are labeled as plantation land, with the exception of the area to the north of the Property, which appears to be vacant and undeveloped. The general vicinity of the Property appears to be either agricultural or vacant land. Some roads and railways are present, including a railway labeled Oahu Railway and Land Co, located south of the Ewa Plantation Railway.

Records from the 1940's, shows further development south of the Property at Barbers Point Naval Air Station (NAS) (USACE 1943, USGS 1944). It appears that the Property has been partially graded and is no longer used for agricultural purposes. Adjacent properties to the east, west and south appear to be used for agricultural purposes. North of the property appears to be undeveloped and vacant. It appears the old Ewa Plantation railway is now road 215. Oahu Rail and Land Co. railway is present to the south of road 215. What is later identified as Waimanalo road runs alongside the railroad.

The next available record, dated 1953, shows that a quarry is present in the eastern portion of the Property. A small road is visible immediately east of the Property. The area to the north of the Property is labeled "military reservation". Former Waianae road is now identified as Farrington Highway. Waimanalo Village is present further south of the Property (USGS 1953).

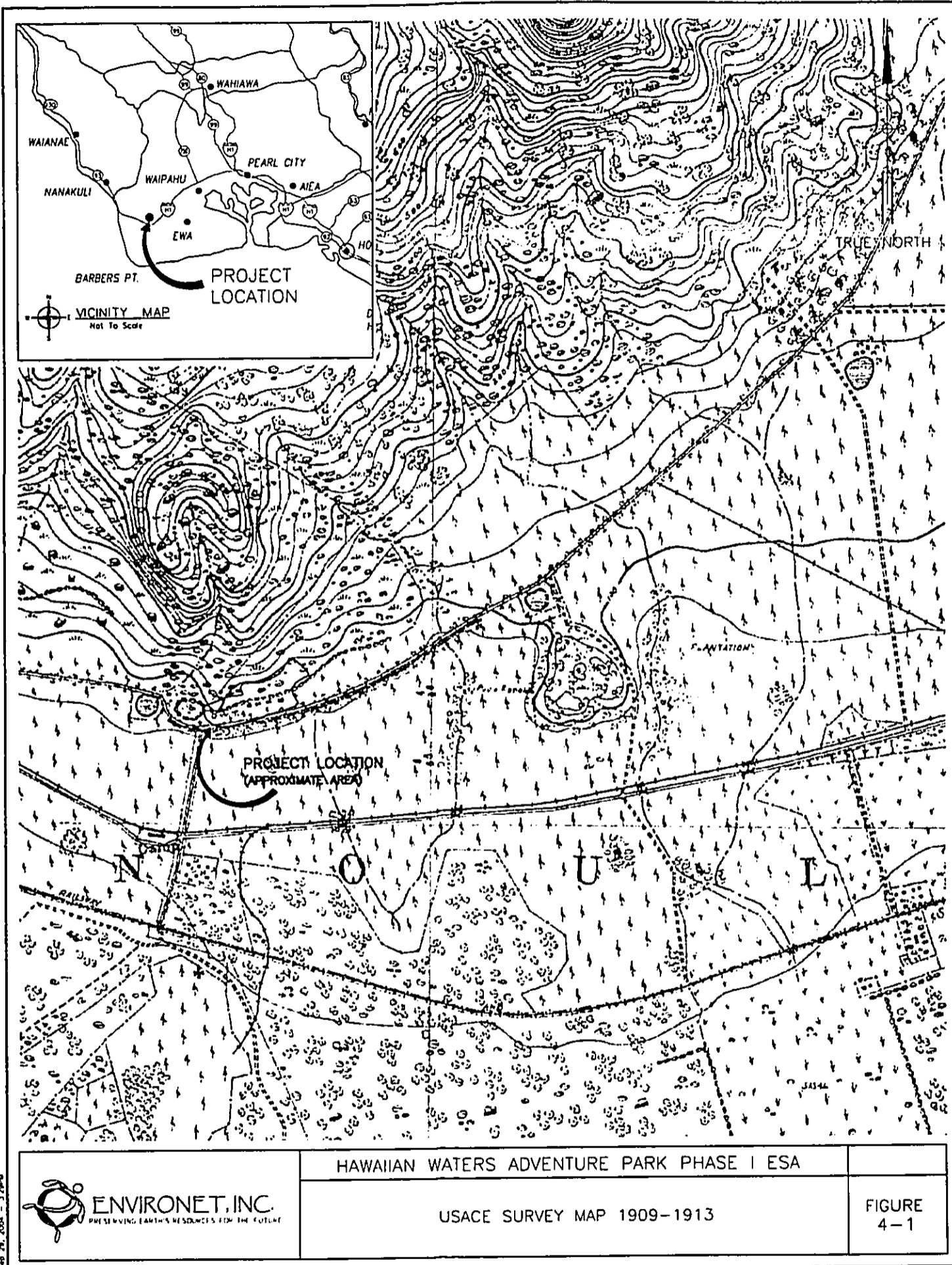


The first indication of development in Puu Kapolei and Makakilo was observed in the early 1960's (USGS 1962) (Figure 4-2). By the late 1960's the H-1 Freeway is present north of the Property (USGS 1968). No changes were observed on the Property with the exception of the presence of a road possibly connected to the mining activities on the Property. No further changes in the areas surrounding the Property were observed between in the 1960's and 1970's, with the exception of continued development at Barbers Point NAS, Makakilo, and Puu Kapolei (CCH 1969; USGS 1962, 1968, 1977).


By the 1980's, it appears that the mining activities on the Property has ceased. No major changes are visible to the Property vicinity with the exception of further development of Makakilo to the north and Barbers Point to the south of the Property.

The Property remained unchanged until the most recent available record, in the late 1990's (USGS 1998) (Figure 4-3). More development is visible to the north of the Property, in the Makakilo area. Areas in the general vicinity of the Property also appear to be more developed.

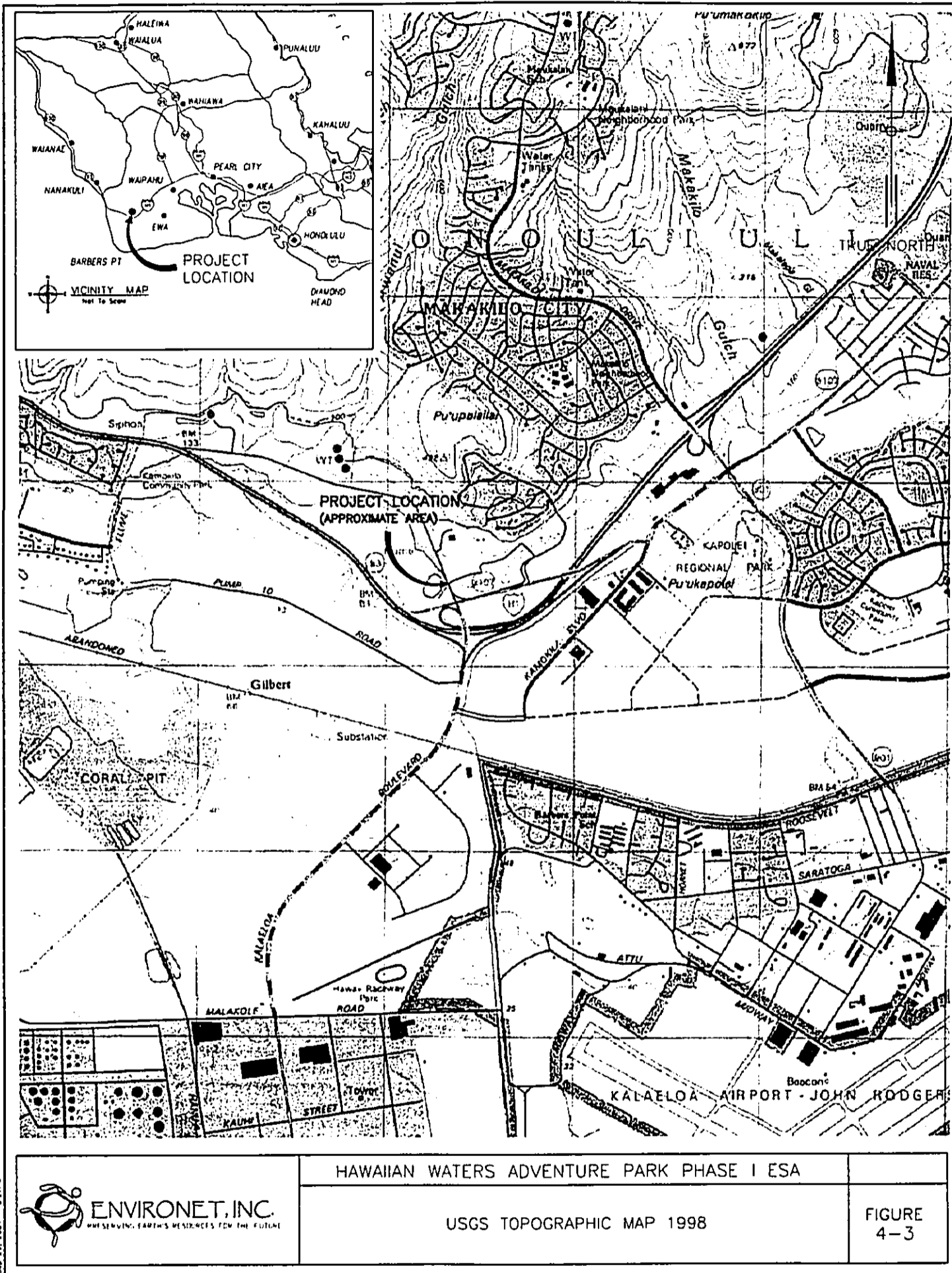
The maps did not show any indication of potential environmental issues.



V:\P04\04-010 Hawaiian Waters Adventure Park Phase I ESA\Drawings\Figures\4-12\4.12.dwg  
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 <b>ENVIRONET, INC.</b> <small>PRESERVING EARTH'S RESOURCES FOR THE FUTURE</small>	HAWAIIAN WATERS ADVENTURE PARK PHASE I ESA	
	USACE SURVEY MAP 1909-1913	FIGURE 4-1





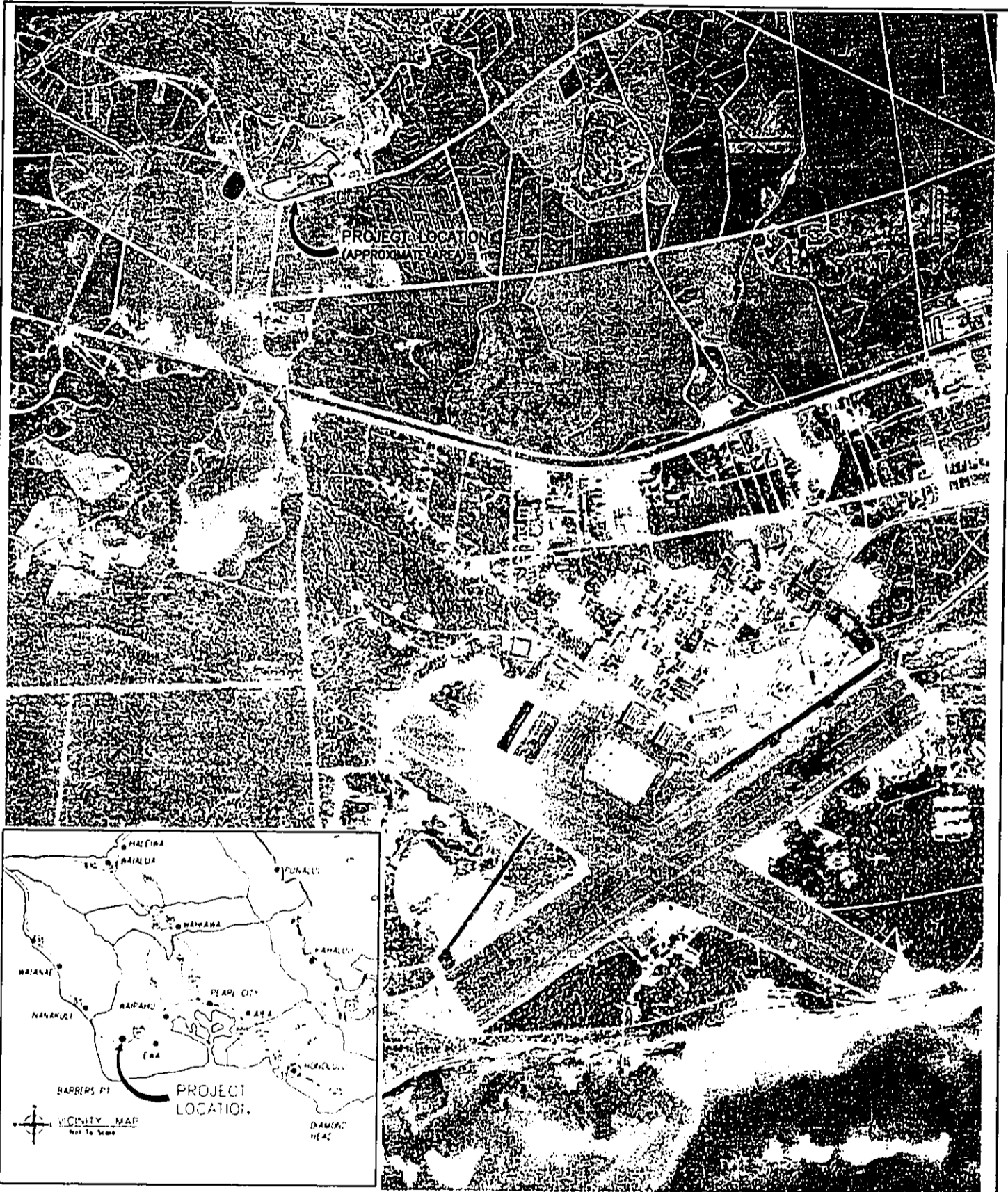
T:\704\104-010 Mission Waters Adventure Park Phase I ESA\Drawings\Figure 4-12.1.63.dwg  
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## ***4.2 Aerial Photographs***

Readily available aerial photographs were reviewed at the University of Hawaii, Hamilton Library Map Room for historical and present land use patterns on the Property and in the vicinity of the Property. Aerial photographs from 1951, 1962, 1965, 1968 and 1993 were examined. The aerial photographs generally reflected the changes observed in the topographic maps (Section 4.2). A summary of the findings is provided below.

- The earliest available aerial photograph, from 1951, shows at least portions of the Property as well as adjacent properties being used for agricultural purposes (Figure 4-4). The east portion of the property appears grubbed and graded, possibly in connection with the quarry present on the site around this time. A reservoir is present to the west of the Property. Several roads are visible in the Property, including what is now Farrington Highway, as well as access roads to agricultural areas.
- The aerial photographs from early to mid 1950's (1962, 1965) shows no changes on the Property. Development is visible in the Makakilo area to the north of the Property. The aerial photograph from 1968, however, shows the entire Property is grubbed and graded and appears to no longer be used for agricultural purposes. The quarry is visible in the eastern portion of the Property. Some roads are visible on the Property. The H-1 Freeway is visible to the south of the Property. The vicinity of the Property still appears to be used for agricultural purposes.
- The most recent aerial photograph, from 1993, shows that the Property is still grubbed and graded, but remains undeveloped (Figure 4-5). Areas to the immediate north, east and south is no longer used for agricultural purposes. Appears there are still some agricultural land to the west of the Property. At least two buildings are visible to the north of the Property.

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HAWAIIAN WATERS ADVENTURE PARK PHASE I ESA

AERIAL PHOTOGRAPH 1951

FIGURE  
4-4

NOT TO SCALE



### ***4.3 Sanborn Fire Insurance Maps***

The Sanborn Map® Collection consists of a uniform series of large-scale detailed maps, dating from 1867 through 1969 and depicting the commercial, industrial, and residential sections of cities. The maps were designed by surveyor D.A. Sanborn in 1866 to assist fire insurance agents in determining the degree of hazard associated with a particular property. Sanborn Maps® illustrate in outline form the site, size, shape, construction and building material of dwellings, commercial buildings, and factories. Details of buildings include fire walls, the location and number of windows and doors, style and composition of roofs, wall thickness, cracks in exterior walls, and makes of elevators. The maps also indicate building use, sidewalk and street widths, layout and names, property boundaries, distance between buildings, house and block numbers, location of water mains, hydrants, piping, wells, cisterns, and fuel storage tanks.

Environmental Data Resources, Inc. was subcontracted to conduct a review of a complete collection of Sanborn fire insurance maps. Although historical research revealed that a few buildings were present in the late 1950's and early 1960's (please see section 4.4), no coverage for the Property was found.

### ***4.4 Ownership and Land Use Records***

Ownership history for the Property was obtained from historical records maintained by the City and County of Honolulu Real Property Assessment Division (CCH RPAD). The Property occupies approximately 30 acres of a parcel of land identified as TMK 9-1-016:009. Real property records dating back to as early as the 1930's are kept at the CCH RPAD. The records indicate that the parcel containing the Property was created in 1949 from parcel 9-1-016:004. The parcels were both owned by James Campbell Trust Estate and leased by Ewa Plantation Co at that time. In 1962, the lease of the Property (TMK 9-1-016:009) was transferred to Oahu Sugar Co. Ltd. Property tax records dated 1987 indicate that a portion of the Property is leased to GTE Hawaiian Tel. Co. Records indicate that the lease to Oahu Sugar Co. Ltd. expired in 1995. In August of 1998, the Property was leased to the Hawaiian Waters Adventure Park (then called "The Waters of Kapolei, L.C.C."), who is the current lessee of the Property.

Property tax records indicate that the portion of the Property utilized for mining purposes was leased to Pacific Concrete and Rock Co. Ltd. until December of 1978, but records do not indicate when the quarry first was established or when it was closed.



Available building records from the City & County of Honolulu Department of Planning and Permitting were reviewed. Records indicate that Pacific Concrete and Rock constructed and demolished several buildings in the late 1950's and in the 1960's. Records indicate that water pumps and crushing equipment was present on the Property in the 1970's.

Copies of the real property and building records obtained are provided in Appendix B of this report.

## ***Section 5 Site Reconnaissance and Interviews***

EI staff conducted the site reconnaissance on September 16, 2004 to observe current site uses and to identify potential sources of environmental concern. The site reconnaissance consisted of a visual survey of the site and adjacent properties. Mr Guy Brown, Director of the Hawaiian Waters Adventure Park, and Mr. Jason Fife, Director of Operations, were interviewed during the site visit (section 5.3). Photographs taken during the site reconnaissance are provided in Figures 5-1 and 5-2.

### ***5.1 Site Observations***

Entrance to the Property is from the south, from Farrington Highway. A chain-link fence encloses the portion of the Property that contains the 25-acre adventure park. The Park consists of 11 water slides, two restaurants, two stages, a volleyball court, an arcade and several shaded picnic areas. Pool cleaning systems and trailers used as administrative offices are also present on the Property. Ground cover in the park area of the Property consists of concrete pathways and landscaped areas.

Two in-use propane aboveground storage tanks (ASTs) were located on the Property (Figure 5-1). The ASTs were located adjacent to each of the two restaurants on the Property, and supply gas to the kitchens. Underground containers for storage of waste cooking grease were also present next to the restaurants. These are emptied on a regular basis by outside contractors (personal communication, Mr. Jason Fife, 2004). A liquid carbon dioxide (CO<sub>2</sub>) AST was located next to the water treatment facility behind the wave pool (Figure 5-1). A 600-gallon AST containing hydrochloric acid (HCl) was present in each of the two water treatment facilities. The ASTs had proper secondary containment. All areas of potential new construction were surveyed. No recognized environmental conditions were observed within the current adventure park area.

About 5 acres in the northeastern portion of the Property is currently undeveloped. Entrance to this portion of the Property is via an access road currently used by Grace Pacific, Inc (personal communication, Mr. Guy Brown, 2004). This portion of the Property lies within the boundaries of the old quarry. Steep rock faces surrounds the outcrop to the north. The ground cover consists of gravel, red soil and grasses. Several soil mounds were observed in this area. Four 40-foot storage containers were located in the undeveloped area of the Property, two in the northwestern portion and two in the northeastern portion. Access was not provided to the storage containers.

Two green-waste containers were located in the central portion of the undeveloped area. Several small piles of household trash as well as construction and pool related debris were observed in this portion of the Property (Figure 5-1). Construction debris included metal pipes, plastic pipes, bricks, wooden debris and used paint containers. The paint containers were piled along the wall of one of the two 40' storage containers located in the northeastern portion of the Property, and were stored with no containment and no cover.

Located adjacent to the used paint containers were in excess of 30 used car (or golf cart) batteries. These were also stored directly on the ground and were left uncovered.

Several 55 gallon metal drums were observed in the undeveloped area. Three of the drums were located in the grassy area next to a grass-covered mound in the center of the Property (Figure 5-1). Two of the drums appeared to be about half filled with liquid and one drum appeared to be empty. No stained soil or distressed vegetation was observed around the drums. Soil beneath the drums was not inspected. The drums appeared to be intact but rusty. A single drum was located north of the three drums. The drum appeared to be empty. This drum also appeared to be intact but rusty. Three drums were located in the grass-covered eastern portion of the undeveloped area, adjacent to a dumped golf cart and a display case (Figure 5-1). The drums were all very rusty. One of the drums (middle in figure 5-1) had a tennis-ball sized hole in the lid. The drum appeared to contain a pink liquid and petroleum odor was detected around the drum. The other drums were intact and appeared to be about half filled with liquid. One of the drums was laying on its side. No stained soil was observed around the drums. Soil beneath the drums was not inspected. Other debris observed on the Property included a 5-gallon empty, rusty petroleum oil can, a pool pump, several piles of pool chairs, a refrigerator, two piles of wood logs, sheet metal, several golf carts and an engine. Some soil staining was visible beneath the engine.

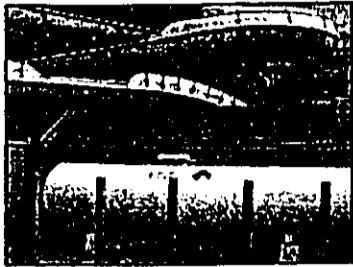
## ***5.2 Adjacent Properties***

The Property is bordered to the northwest by a satellite farm, to the north and east by an old landfill and a landfill-access road operated by Grace Pacific Inc. (personal communication, Mr. Guy Brown, 2004), to the northeast by the residential area of Makakilo, to the south by Farrington Highway and to the west by Kalaeloa Road. The H-1 Freeway runs parallel to Farrington Highway south of the Property. A commercial area is present across the H-1 Freeway to the south. Former Barbers Point Naval Air Station is present further south of the Property.

There was no visual evidence of environmental concerns on adjacent properties that would affect the Property.



AREA OF PROPOSED NEW FLOW RIDER PHOTO IS FACING SOUTH.



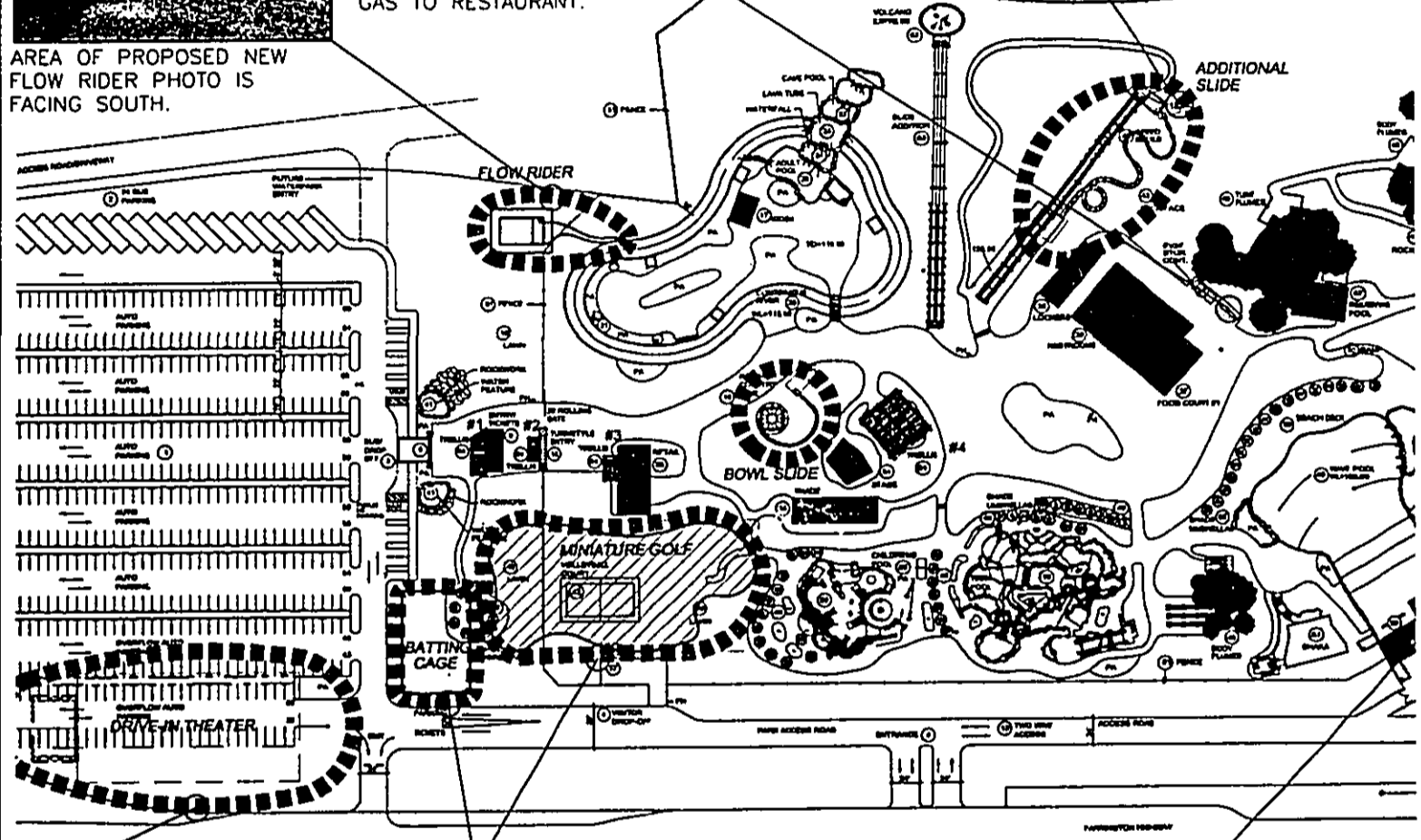
PROPANE AST SUPPLYING GAS TO RESTAURANT.



AREA OF PROPOSED NEW SLIDE (BELOW SLIDE SHOWN). PHOTO IS FACING SOUTH-SOUTHWEST.



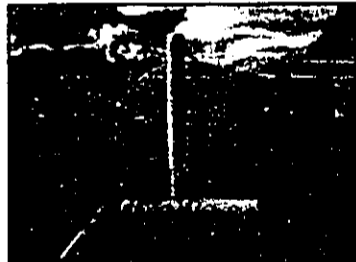
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AREA OF PROPOSED NEW DRIVE-IN THEATER. PHOTO IS FACING SOUTHWEST.



AREA OF PROPOSED NEW BATTING CAGE AND MINIATURE GOLF AREA. PHOTO IS FACING SOUTH SOUTHWEST.



LIQUID CO<sub>2</sub> STORAGE CONTAINER.



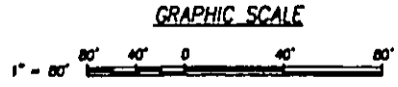
PROPANE GAS TO RI

LEGEND:

○ PROPOSED NEW PARK DEVELOPMENT



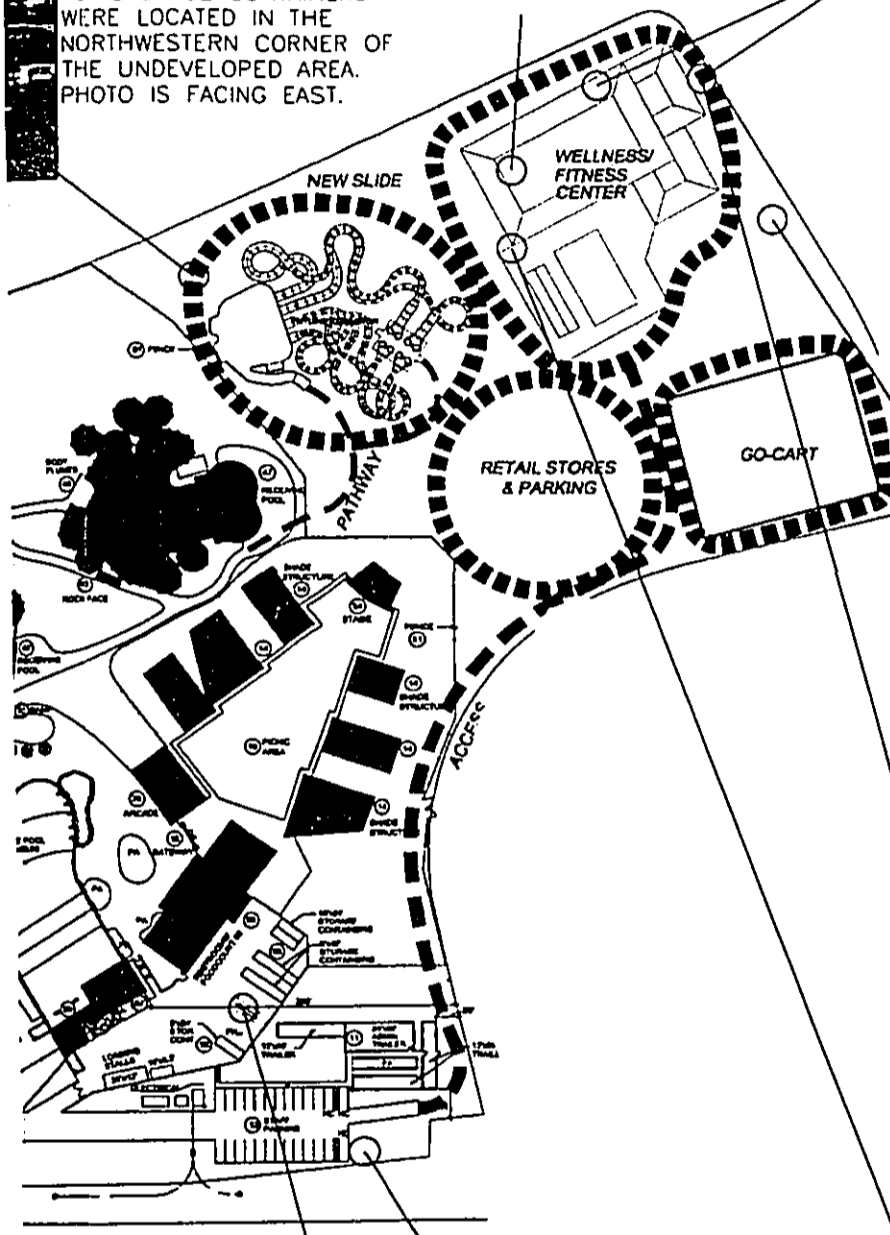
NORTH



V:\VDA\404-010 Hancock Waters Adventure Park Phase 1 ESI\Drawings\Figure 3-12.dwg

LEFT: OVERVIEW OF AREA OF PROPOSED EXPANSION. TWO 40' STORAGE CONTAINERS WERE LOCATED IN THE NORTHWESTERN CORNER OF THE UNDEVELOPED AREA. PHOTO IS FACING EAST.

LOCATION OF A 55 GALLON METAL DRUM. DRUM APPEARED TO BE EMPTY.



TWO 40' STORAGE CONTAINERS AND TWO 40' GREEN-WASTE CONTAINERS WERE LOCATED IN THE NORTHEASTERN PORTION OF THE UNDEVELOPED AREA. PHOTO IS FACING NORTH-NORTHEAST.



OVERVIEW OF AREA OF PROPOSED EXPANSION. PHOTO IS FACING NORTHWEST.



TRASH AND CONSTRUCTION DEBRIS LOCATED IN THE EASTERN PORTION OF THE PROPERTY.



DEBRIS INCLUDING 3 RUSTY DRUMS LOCATED NEAR NORTHWESTERN PROPERTY BORDER. ONE DRUM HAD PETROLEUM ODOR. ALL DRUMS APPEARED TO BE PARTLY FILLED WITH LIQUID.



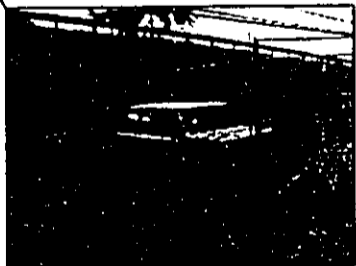
AT LEAST 30 USED CAR/GOLF CART BATTERIES WERE LOCATED ON THE GROUND AND UNCOVERED NEAR ONE OF THE 40' STORAGE CONTAINERS.



NUMEROUS DISCARDED PAINT CONTAINERS WERE OBSERVED NEAR A 40' STORAGE CONTAINER.



PANE AST SUPPLYING TO RESTAURANT.



ABANDONED VEHICLE LOCATED IN THE SOUTH EAST CORNER OF THE PROPERTY. PHOTO IS FACING SOUTHWEST.



3 55 GALLON DRUMS LOCATED IN THE CENTRAL PORTION OF THE AREA. TWO OF THE DRUMS CONTAINED AN UNKNOWN LIQUID, WHILE THE THIRD WAS EMPTY.



A DISCARDED ENGINE WAS OBSERVED ON THE PROPERTY. SOME SOIL STAINING WAS OBSERVED BENEATH THE ENGINE.

**VIRONET, INC.**  
VING EARTH'S RESOURCES FOR THE FUTURE

DRAWN BY:  
I.K.N.  
CHECKED BY:  
R.S.Y.  
REFERENCE:  
LESTER H. INOUE  
AND ASSOCIATES

HAWAIIAN WATERS ADVENTURE PARK PHASE I ESA

SITE RECONASSAINCE PHOTOS  
EXISTING AND PROPOSED PROPERTY  
DEVELOPMENT

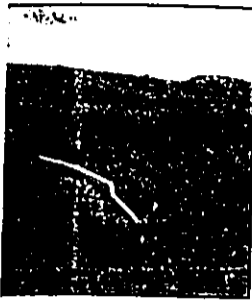
FIGURE  
5-1



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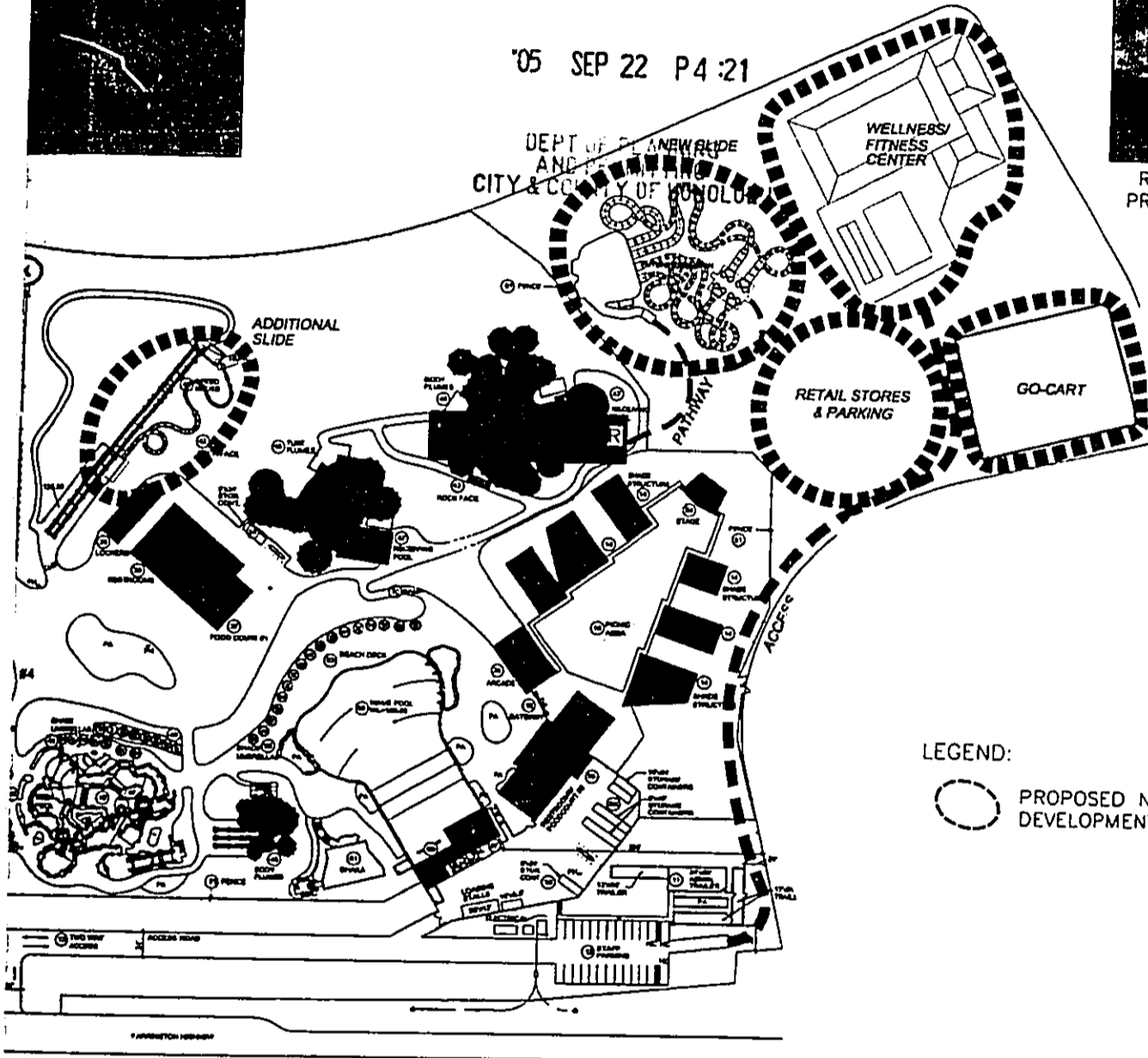
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AN OLD LANDFILL IS PRESENT TO THE NORTH OF THE PROPERTY. PHOTO IS FACING NORTH.

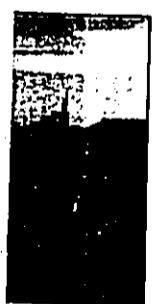


RESIDENTIAL DEVELOPMENT IS PRESENT IN MAKAKILO TO THE NORTH OF THE PROPERTY. PHOTO IS FACING NORTH-NORTHEAST.

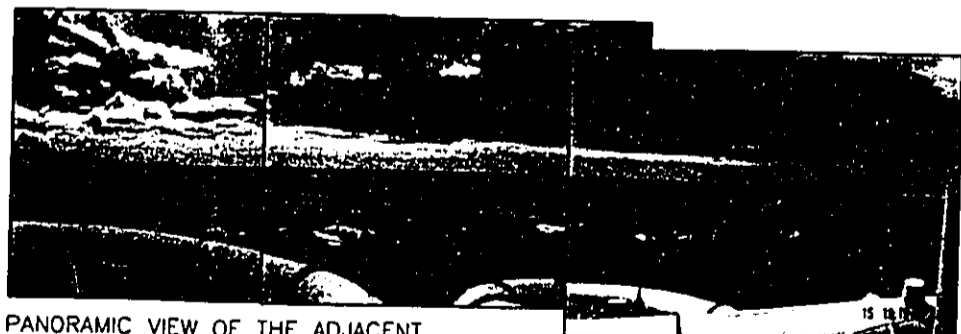
DEPT. OF PLANNING AND ZONING CITY & COUNTY OF HONOLULU



LEGEND:  
○ PROPOSED NEW PARK DEVELOPMENT



IS PRESENT TO THE NORTH OF THE PROPERTY. PHOTO IS FACING NORTH.



PANORAMIC VIEW OF THE ADJACENT PROPERTIES TO THE SOUTHEAST. PHOTOS ARE TAKEN FROM THE TOP OF THE WAIANAE COASTER.

ENVIRONET, INC.  
SERVING EARTH'S RESOURCES FOR THE FUTURE

DRAWN BY:  
I.K.N.  
CHECKED BY:  
R.S.Y.  
REFERENCE:  
LESTER H. BOUTE AND ASSOCIATES

HAWAIIAN WATERS ADVENTURE PARK PHASE I ESA

SITE RECONASSAANCE PHOTOS  
ADJACENT PROPERTIES

FIGURE  
5-2

### ***5.3 Interviews***

Mr. Guy Brown is the founder and has been the director of the Hawaiian Waters Adventure Park since its construction in 1998. Mr. Brown also functions as head of maintenance and supervises all work completed in the park. Mr. Brown informed EI that portions of the park is built on the old quarry and that gravel and topsoil was brought in from nearby areas during construction. Additional soil has been brought inn for landscaping purposes at later dates. Mr. Brown also informed EI that all water slides are made of fiberglass and steel. No damaged fiberglass surfaces have been observed to date. Mr. Brown informed EI that an environmental study, possibly a Phase I ESA, was completed during the initial lease of the Property to Hawaiian Waters Adventure Park. A copy of this report was not available for EI's review.

Mr. Jason Fife, Director of Operations at Hawaiian Waters Adventure Park, accompanied EI staff during the site visit. Mr. Fife has been with the park since its construction in 1998. He is in charge of the water treatment systems and general operations of the park. Mr. Fife informed EI that he park uses water provided by the CCH. Water is treated on-site and recycled back into the system. According to Mr. Fife, only rinse water from intermittent pool cleaning is released into the CCH sewer system.



## ***Section 6      Records Review***

Research for available environmental documents and records included utilizing the services of a commercial database research company, submitting written requests for public information to government agencies, telephone interviews with regulatory agency personnel, and reviewing databases and listings maintained by regulatory agencies on government websites.

The purpose of the records review was to assess the potential presence of environmental contamination or future release of hazardous materials or substances on the Property as a result of activities conducted on and around the Property. The record search was limited to information readily available from public sources and EI's previous project experiences. The public records are updated regularly by the individual agencies but may not be completely up to date.

Records reviewed during this ESA include those maintained by the following agencies:

- United States Environmental Protection Agency (EPA)
- State of Hawaii Department of Health (DOH)
- City and County of Honolulu Real Property Tax Division (CCH RPAD)
- City and County of Honolulu Department of Planning and Permitting (CCH DPP)
- Honolulu Fire Department (HFD)
- Oahu Civil Defense, Local Emergency Planning Committee (LEPC)

Environmental Data Resources, Inc. (EDR), an independent environmental information service provider, was subcontracted to conduct a search of government records for the project site and surrounding areas within specified search radii (Section 2). The EDR report dated September 02, 2004 is provided in Appendix A of this report. A summary of the results of the records search and review is provided in Table 6-1 and the discussion that follows.

EI staff also conducted research of property records at the City and County of Honolulu Real Property Tax Division and researched building permit records at the City and County of Honolulu Department of Planning and Permitting. Discussions of the record-search results are provided in Sections 4.4, 6.3 and 6.4. Copies of property records are provided in Appendix B.

Written requests for information about the Property and were submitted to State of Hawaii Department of Health, Honolulu Fire Department and Oahu Civil Defense, Local Emergency Planning Committee. Discussions of search results are provided in Sections 6.2, 6.5 and 6.6 respectively. Copies of the request letters submitted to the various agencies and their responses are provided in Appendix C.

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## ***6.1 U.S. Environmental Protection Agency***

U.S. EPA database and records reviewed include:

- The National Priority List (NPL), which identifies sites which pose the greatest immediate threat to human health or the environment under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or "Superfund") - Site search is within a 1 mile radius of the Property.
- CERCLIS (CERCLA Information System), which lists sites that are under consideration for listing on the NPL - Site search is within a 1 mile radius of the Property
- Resource Conservation and Recovery Act (RCRA) Corrective Action sites and associated permitted treatment, storage, and disposal (TSD) facilities (CORRACTS) - Site search is within a 1/2 mile radius of the Property
- RCRA permitted treatment, storage, and disposal facilities (TSD) - Site search is within a 1/2 mile radius of the Property
- RCRA registered (RCRIS) small (SQG) or large quantity hazardous waste generators (LQG) - Site search is within a 1/4 mile radius of the Property
- The Emergency Response Notification System (ERNS) of spills - Site search is within a 1/8 mile radius of the Property

The following are Federal ASTM supplemental records also reviewed by EDR:

- The Emergency Response Notification System (ERNS) of spills
- CERCLA Consent Decree sites
- CERCLA Record of Decision (ROD) sites
- De-listed NPL sites
- Facility Index System/Facility Identification Initiative Program Summary Report (FINDS)
- Hazardous Materials Information Reporting System (HMIRS)
- Material Licensing Tracking System (MLTS)
- Mines Master Index File
- Federal Superfund Liens

- Polychlorinated biphenyl (PCB) Activity Database System (PADS)
- Department of Defense (DOD) List
- RCRA Administrative Action Tracking System
- Toxic Chemical Release Inventory System (TRIS)
- Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA)/ Toxic Substances Control Act (TSCA) Tracking System (FFTS)
- Section 7 Tracking System

The Property was not listed in any of the Federal databases searched. No neighboring sites were identified in the Federal databases within the designated search radii. A summary of the database search is provided in Table 6-1. A copy of the EDR report is provided in Appendix A.

Table 6-1 Sites Identified on State and Federal Hazardous Materials Listings and Databases				
Database	Within 1/8 mile	from 1/8 to 1/4 mile	from 1/4 to 1/2 mile	from 1/2 to 1 mile
Federal EPA National Priorities List (NPL) and Proposed NPL	0	0	0	0
Federal EPA Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) and CERCLIS No Further Remedial Action Planned (CERC-NFRAP)	0	0	0	0
Federal EPA RCRA Corrective Actions (CORRACTS) and associated TSD	0	0	0	-
Federal EPA RCRA Permitted Treatment, Storage, and Disposal (TSD) Facilities	0	0	0	-
Federal EPA RCRA Registered Large Generators of Hazardous Waste (LQG)	0	0	-	-
Federal EPA RCRA Registered Small Generators of Hazardous Waste (SQG)	0	0	-	-
Federal EPA Emergency Response Notification System (ERNS) of Spills	0	-	-	-
State Hazardous Waste Sites (SHWS)	0	0	0	0
State DOH Permitted Solid Waste Landfills, Incinerators, or Transfer Stations (SWLF)	0	0	0	-
State DOH Hazard Evaluation and Emergency Response Office (HEER) Release Notification Report (State spills list)	0	-	-	-
Hawaii Emergency Planning and Community Right-to-Know (HEPCRA) list of facilities	0	-	-	-
State DOH Solid and Hazardous Waste Branch records	0	-	-	-
State DOH Leaking Underground Storage Tanks (LUST)	0	0	0	-
State DOH Registered Underground Storage Tanks (UST)	0	0	-	-

Note: "-" means this distance is not within search criteria for the specific database.

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## **6.2 Hawaii Department of Health Records**

Hawaii DOH database and records reviewed include:

- State permitted solid waste landfills, incinerators, or transfer stations (SWLF)
- State Hazardous Waste Sites (SHWS), the state's equivalent to CERCLIS
- Release Notification Report (State spills list) compiled by the Hazard Evaluation and Emergency Response Office (HEER)
- Environmental Management Division, which includes the following Branches:
  - Clean Air
  - Clean Water
  - Safe Drinking Water
  - Wastewater
  - Solid and Hazardous Waste
    - Leaking Underground Storage Tanks (LUST) - Site search is within a 1/2 mile radius of the Property
    - Registered Underground Storage Tanks (UST) - Site search is within a 1/4 mile radius of the Property
    - Solid and Hazardous Waste Branch records - Site search is within a 1/8 mile radius of the Property

Neither the Property nor any neighboring properties were listed in any of the databases searched by EDR (EDR, 2004). In a response to a written inquiry, DOH indicated that there are no reports of potential hazardous material release or other violations on the Property. A copy of the DOH response is included in Appendix C.

## **6.3 Real Property Tax Assessment Division**

The CCH RPAD maintains real property ownership records for the Property. Information regarding the property ownership records reviewed is presented in Section 4.4.

#### ***6.4 Honolulu Fire Department***

A written request was made to the Honolulu Fire Department (HFD) for fire and hazardous material spill incident reports. A written response from the HFD informed EI that there are no records of hazardous materials incidents on the Property. Several incidents were reported within a one-quarter mile radius of the Property; however, these are typically traffic-related incidents or other minor events that are not anticipated to affect the Property. A copy of the HFD response is included in Appendix C.

#### ***6.5 Oahu Civil Defense Agency***

A written request was made to the Oahu Civil Defense Agency Local Emergency Planning Committee (LEPC) for Tier 2 reports. Tier 2 reports contain information on facilities that store, use, or generate hazardous materials/substances on their premises. A written response from the LEPC informed EI that there are no Tier 2 reports filed for the Property. A report was filed for the adjacent Verizon Kapolei Earth Station. A copy of the report is included in Appendix C.

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## ***Section 7 Findings and Conclusions***

The findings and conclusions presented below are based on the site reconnaissance and review of reasonably available public records conducted for this study.

### ***7.1 Findings***

A review of historical records revealed the following:

- The Property has historically been used for sugarcane cultivation and mining. Sugarcane cultivation in the area ceased in the mid 1990's. It is not known when the mining activities ended. The Property remained undeveloped until 1998, when the Hawaiian Waters Adventure Park was constructed.
- Historical records have shown that widespread use of pesticides in the Ewa Plain for sugarcane cultivation has resulted in varying degrees of pesticide contamination in soil and/or groundwater. The main location of excessive pesticide contamination in sugarcane areas is typically associated with pesticide mixing areas. Pesticide concerns for the Property are as follows:
  - The prevalent cause of pesticide residues in soils is due to the proper application of pesticides over the many years of sugarcane cultivation. The typical result of the pesticide application is lingering pesticides in the soil at *de minimis* concentrations. Pesticide concentrations at these levels are likely to be present at the Property but not at levels that warrant further investigation.
  - The prevalent cause of major pesticide contamination in soils is due to historic pesticide mixing practices. Pesticide mixing plants, some of which were portable, have been established through historical evidence to be the source of significant soil and groundwater contamination in agricultural areas on Oahu. Such mixing plants were located throughout the Ewa Plain during the era of sugarcane cultivation. However, neither our historical research nor our site visit found any evidence to indicate that a mixing plant was ever located on the Property. Therefore, further investigation is not warranted at this time.

An inspection of the site revealed the following:

- Several small piles of household trash and construction and pool related debris were observed in the 5-acre undeveloped portion of the Property. Construction debris included metal pipes, plastic pipes, bricks and wooden debris.
- Used paint containers were located between the two 40' storage containers located in the northeastern portion of the Property, and were stored with no containment and no cover.
- An excess of 30 used car (or golf cart) batteries were observed adjacent to the paint containers. These were also stored directly on the ground and were left uncovered.
- Several 55 gallon metal drums were observed in the undeveloped area. Neither of the drums had secondary containment and all were left uncovered. Three of the drums were located in the grassy area next to a grass-covered mound located in the center of the Property. Two of the drums appeared to be about half filled with liquid and one drum appeared to be empty. No stained soil or distressed vegetation was observed around the drums; however soil beneath the drums was not inspected. The drums appeared to be intact but rusty. A single drum was located north of the three drums. The drum appeared to be empty. This drum also appeared to be intact but rusty. The last observed drums were located in the grass-covered eastern portion of the undeveloped area, adjacent to a dumped golf cart and a display cooler. The drums were all very rusty. One of the drums had a tennis-ball sized hole in the lid. The drum appeared to contain a pink liquid and petroleum odor was detected around the drum. The other drums appeared to be intact and about half filled with liquid. One of the drums were laying down. No stained soil was observed around the drums; however soil beneath the drums was not inspected.
- Other debris observed on the Property included a 5-gallon empty, rusty petroleum oil can, a pool pump, several piles of pool chairs, plastic debris, a refrigerator, a display case, two piles of wood logs, sheet metal, several golf carts and an engine. Some soil staining was visible beneath the engine.

## ***7.2 Conclusions and Recommendations***

Based on the findings described in section 7.1, EI recommends the following:

- The six dumped 55 gallon drums are of concern because they are in poor condition and lack secondary containment. EI recommends that the drums be removed and properly



disposed. In the event that discolored vegetation or stained soil is observed during removal, EI recommends limited sampling of the affected areas.

- The dumped car/golf cart batteries and paint containers should be removed and properly disposed. In the event that discolored vegetation or stained soil is observed during removal, EI recommends limited sampling of the affected areas.
- The discarded engine is a concern because although only a very small area of staining was observed during the site visit, the lack of secondary containment could potentially lead to more extensive soil contamination. EI recommends that the engine and stained soil should be removed and properly disposed.
- The piles of construction and household debris including golf carts, plastic debris, sheet metal, steel, bricks a pool pump, several piles of pool chairs, a refrigerator, a display case, wood logs, sheet metal, golf carts on the Property should be removed from the site and properly disposed.

We have performed a Phase I ESA of the property identified as Oahu TMK 1-9-1-016, Parcel 009, the Property, in conformance with the scope and limitations of ASTM Practice E 1527-00.



## *Section 8      Limitations*

We have performed our services for this project in accordance with our Agreement, and with ASTM Practice E 1527-00 for ESA investigations; no guarantees are either expressed or implied.

The record search was limited to information that is reasonably ascertainable from public sources; this information is changing continually and is frequently incomplete. Unless we have actual knowledge to the contrary, information obtained from interviews or provided to us has been assumed to be correct and complete. We do not assume any liability for information that has been misrepresented to us or for items not visible, accessible, or present on the Property at the time of the site visit.

There is no investigation that is thorough enough to preclude the presence of materials on the Property, which presently, or in the future, may be considered hazardous. Because regulatory evaluation criteria are constantly changing, concentrations of contaminants present and considered to be acceptable may, in the future, become subject to different regulatory standards and require remediation.

Opinions and judgments expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal opinions. Unless site conditions change, this document and the information contained herein are valid for a period of 180 days according to the ASTM Practice, and have been prepared solely for the use of the Hawaiian Waters Adventure Park. No third party shall have the right to rely on Environet, Inc. opinions rendered in connection with the services or in this document without Environet's written consent and the third party's agreement to be bound to the same conditions and limitations as the client.

## *Section 9      References*

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-

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***Appendix A***

***Environmental Data Resources, Inc.***

- ***EDR Radius Map with GeoCheck***
  - ***EDR Sanborn Map Search***
-



**EDR™ Environmental  
Data Resources Inc**

**The EDR Radius Map  
with GeoCheck®**

**Hawaiian Waters Adventure Park Phase I  
491 Farrington Hwy  
Kapolei, HI 96707**

**Inquiry Number: 1262024.2s**

**September 02, 2004**

**The Standard in  
Environmental Risk  
Management Information**

**440 Wheelers Farms Road  
Milford, Connecticut 06460**

**Nationwide Customer Service**

**Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)**

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*Thank you for your business.*  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

### TARGET PROPERTY INFORMATION

#### ADDRESS

491 FARRINGTON HWY  
KAPOLEI, HI 96707

#### COORDINATES

Latitude (North): 21.335300 - 21° 20' 7.1"  
Longitude (West): 158.087700 - 158° 5' 15.7"  
Universal Transverse Mercator: Zone 4  
UTM X (Meters): 594605.4  
UTM Y (Meters): 2359392.0  
Elevation: 128 ft. above sea level

#### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 21158-C1 EWA, HI  
Source: USGS 7.5 min quad index

### TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ( "reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

#### FEDERAL ASTM STANDARD

NPL..... National Priority List  
Proposed NPL..... Proposed National Priority List Sites  
CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System  
CERC-NFRAP..... CERCLIS No Further Remedial Action Planned  
CORRACTS..... Corrective Action Report  
RCRIS-TSD..... Resource Conservation and Recovery Information System  
RCRIS-LQG..... Resource Conservation and Recovery Information System  
RCRIS-SQG..... Resource Conservation and Recovery Information System  
ERNS..... Emergency Response Notification System

#### STATE ASTM STANDARD

SWF/LF..... Permitted Landfills in the State of Hawaii

## EXECUTIVE SUMMARY

LUST..... Leaking Underground Storage Tank Database  
VCP..... Voluntary Response Program Sites

### FEDERAL ASTM SUPPLEMENTAL

CONSENT..... Superfund (CERCLA) Consent Decrees  
ROD..... Records Of Decision  
Delisted NPL..... National Priority List Deletions  
FINDS..... Facility Index System/Facility Identification Initiative Program Summary Report  
HMIRS..... Hazardous Materials Information Reporting System  
MLTS..... Material Licensing Tracking System  
MINES..... Mines Master Index File  
NPL Liens..... Federal Superfund Liens  
PADS..... PCB Activity Database System  
UMTRA..... Uranium Mill Tailings Sites  
FUDS..... Formerly Used Defense Sites  
INDIAN RESERV..... Indian Reservations  
US BROWNFIELDS..... A Listing of Brownfields Sites  
RAATS..... RCRA Administrative Action Tracking System  
TRIS..... Toxic Chemical Release Inventory System  
TSCA..... Toxic Substances Control Act  
SSTS..... Section 7 Tracking Systems  
FTTS INSP..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

### STATE OR LOCAL ASTM SUPPLEMENTAL

SPILLS..... Release Notifications

### EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas..... Former Manufactured Gas (Coal Gas) Sites

### BROWNFIELDS DATABASES

US BROWNFIELDS..... A Listing of Brownfields Sites  
BROWNFIELDS..... Brownfields Sites  
VCP..... Voluntary Response Program Sites

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in *bold italics* are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

**EXECUTIVE SUMMARY**

**STATE ASTM STANDARD**

**SHWS:** The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Health.

A review of the SHWS list, as provided by EDR, and dated 07/12/2001 has revealed that there is 1 SHWS site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
CAMPBELL INDUSTRIAL PARK 06/24	1001 KAMUKILA BOULEVARD	1/4 - 1/2S	2	6

**UST:** The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Health's Listing of Underground Storage Tanks.

A review of the UST list, as provided by EDR, and dated 05/01/2004 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
GTE KAPOLEI EARTH STATION	91-340 FARRINGTON HWY /	1/8 - 1/4 WSW	1	6

**FEDERAL ASTM SUPPLEMENTAL**

**Federal Lands:** Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 10/01/2003 has revealed that there is 1 DOD site within approximately 1 mile of the target property.

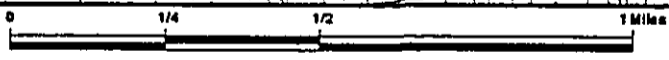
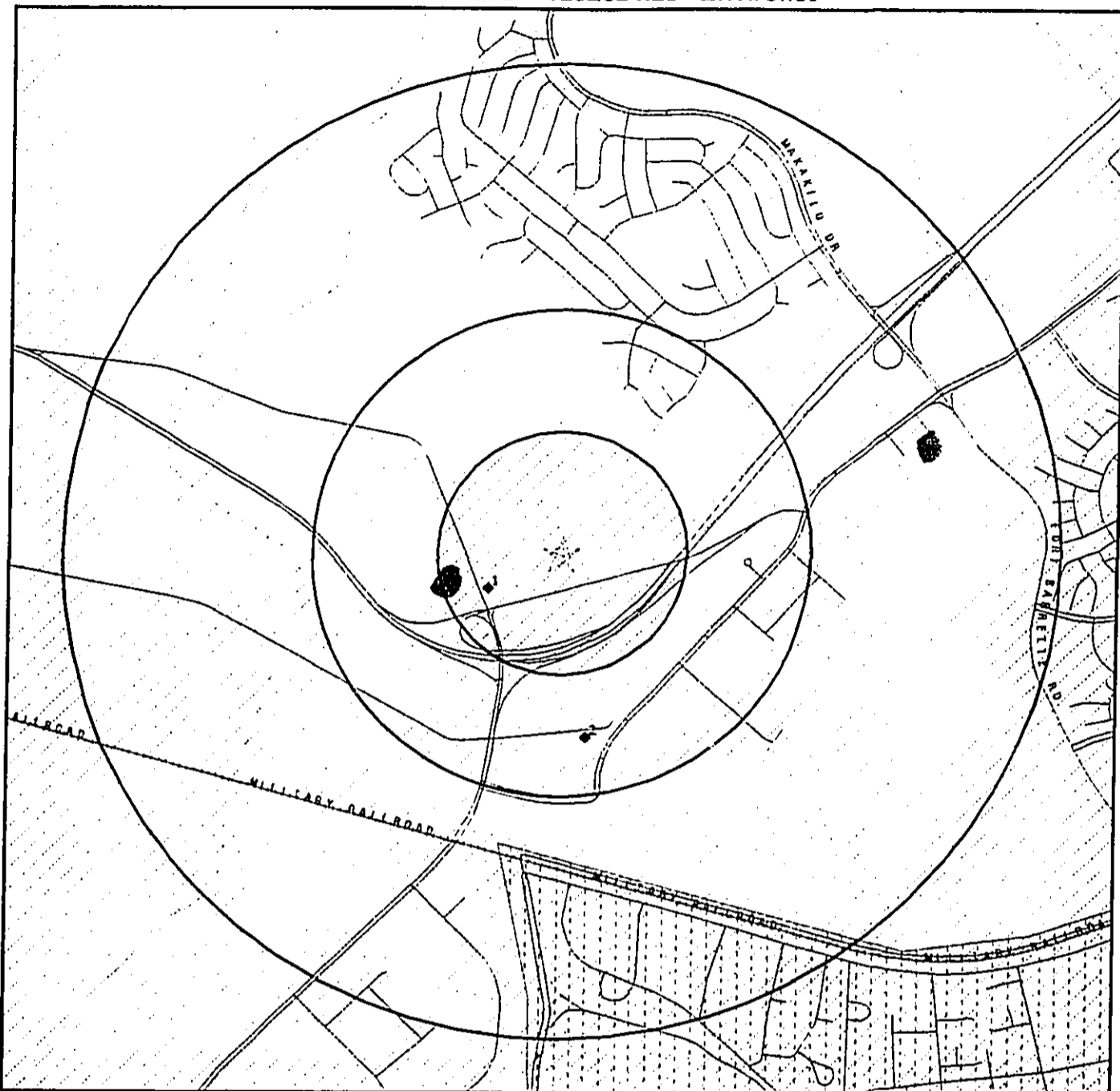
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
BARBERS POINT NAVAL AIR STATIO		1/2 - 1 S	0	6

**EXECUTIVE SUMMARY**

Due to poor or inadequate address information, the following sites were not mapped:

<u>Site Name</u>	<u>Database(s)</u>
CHEMWOOD TREATMENT CO, INC.	SHWS
HAWAII PROJECT MANAGEMENT (HPM)/HAW	SHWS
HANUA STREET FUGITIVE OIL	SHWS, SPILLS
TEXACO MALAKOLE STREET PIPELINE EXC	SHWS, SPILLS
DEEP DRAFT HARBOR PIER 5 CRUDE OIL	SHWS
SINGLE BUOY MOORING BARBERS POINT H	SHWS
HAWAII METAL RECYCLING CO	CERCLIS, RCRIS-SQG, FINDS
KANEOHE BAY OIL DIESEL SIGHTED ALON	SWF/LF, SPILLS
WAIMANALO GULCH LANDFILL, EWA	SWF/LF
DIP LEG 2 THE GAS COMPANY	RCRIS-SQG, FINDS
HAWAIIAN CEMENT- MAKAKILO	FINDS
HAWAIIAN ELECTRIC COMPANY (HECO)-KAHE GENERATING STATION	FINDS
CHEVRON PIPELINE BREAK AT HAWAIIAN REFRACTORIES	FINDS
KAMOKILA PARK WHITE POWDER ON GROUND	FINDS
HAWAIIAN ELECTRIC INDS. INC. KAHE GENERATING STATION	TRIS
HAWAIIAN WESTERN STEEL REVOLVING FU	SPILLS

OVERVIEW MAP - 1262024.2s - Environet



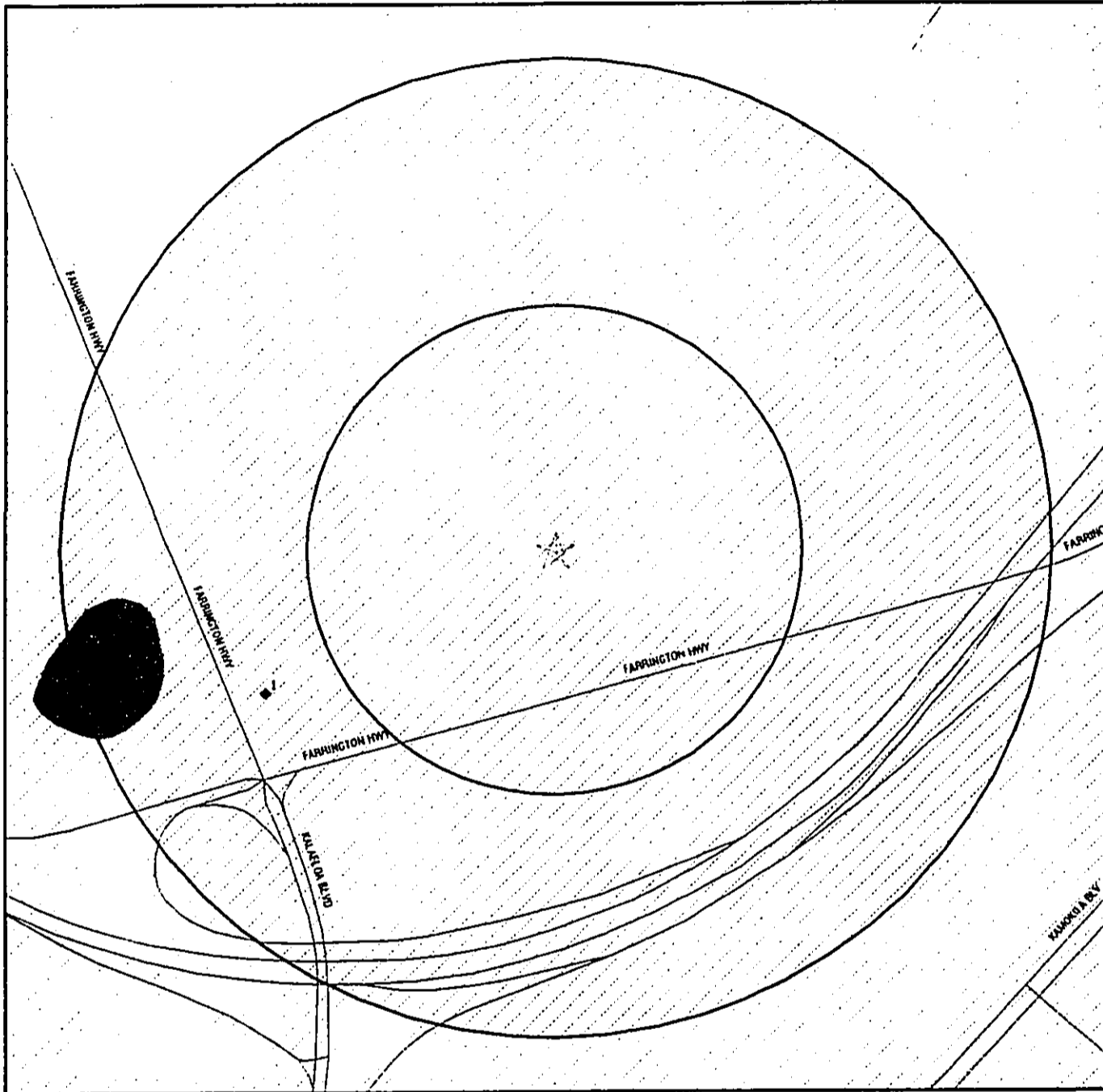
- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- ~ Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands



TARGET PROPERTY:	Hawaiian Waters Adventure Park Phase I	CUSTOMER:	Environet
ADDRESS:	491 Farrington Hwy	CONTACT:	Ida K. Namur
CITY/STATE/ZIP:	Kapolei HI 96707	INQUIRY #:	1262024.2s
LAT/LONG:	21.3353 / 158.0877	DATE:	September 02, 2004 1:07 pm

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DETAIL MAP - 1262024.2s - Environet



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- ~ Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands

TARGET PROPERTY:	Hawaiian Waters Adventure Park Phase I	CUSTOMER:	Environet
ADDRESS:	491 Farrington Hwy	CONTACT:	Ida K. Namur
CITY/STATE/ZIP:	Kapolei HI 96707	INQUIRY #:	1262024.2s
LAT/LONG:	21.3353 / 158.0877	DATE:	September 02, 2004 1:07 pm

## MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b><u>FEDERAL ASTM STANDARD</u></b>								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		0.250	0	0	NR	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
RCRIS-TSD		0.500	0	0	0	NR	NR	0
RCRIS Lg. Quan. Gen.		0.250	0	0	NR	NR	NR	0
RCRIS Sm. Quan. Gen.		0.250	0	0	NR	NR	NR	0
ERNS		TP	NR	NR	NR	NR	NR	0
<b><u>STATE ASTM STANDARD</u></b>								
SHWS		1.000	0	0	1	0	NR	1
State Landfill		0.500	0	0	0	NR	NR	0
LUST		0.500	0	0	0	NR	NR	0
UST		0.250	0	1	NR	NR	NR	1
VCP		0.500	0	0	0	NR	NR	0
<b><u>FEDERAL ASTM SUPPLEMENTAL</u></b>								
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
NPL Liens		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
FUDS		1.000	0	0	0	0	NR	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
DOD		1.000	0	0	0	1	NR	1
RAATS		TP	NR	NR	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
<b><u>STATE OR LOCAL ASTM SUPPLEMENTAL</u></b>								
SPILLS		TP	NR	NR	NR	NR	NR	0
<b><u>EDR PROPRIETARY HISTORICAL DATABASES</u></b>								
Coal Gas		1.000	0	0	0	0	NR	0

**MAP FINDINGS SUMMARY**

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
<b><u>BROWNFIELDS DATABASES</u></b>								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
BROWNFIELDS		0.500	0	0	0	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0

**NOTES:**

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database



**MAP FINDINGS**

Map ID									
Direction									
Distance									
Distance (ft.)									
Elevation									
Site									
						Database(s)		EDR ID Number	
								EPA ID Number	

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

<b>DOD</b> Region South 1/2-1 3210 ft.	<b>BARBERS POINT NAVAL AIR STATION (CLOSED)</b> HONOLULU (County), HI	DOD CDOD048409 N/A
--	--	--------------------------

**FEDERAL LANDS:**

Feature 1:	Navy DOD
Feature 2:	Not reported
Feature 3:	Not reported
Agency:	DOD
URL:	Not reported
Name 1:	Barbers Point Naval Air Station (Closed)
Name 2:	Not reported
Name 3:	Not reported
State:	HI

<b>1</b> WSW 1/8-1/4 859 ft.	<b>GTE KAPOLEI EARTH STATION</b> 91-340 FARRINGTON HWY / CENTRAL-91-595 FARRINGTON KAPOLEI, HI 96707	UST U003221731 N/A
---------------------------------------	--	--------------------------

Relative: Lower	UST: Facility ID: 9-102406 Tank Status: Currently In Use Tank Capacity: Not reported Date Closed: Not reported Owner: VERIZON HAWAII 1177 BISHOP ST. P.O. BOX 2200 Hon.HI 96841 Kapolei, HI 96707	Tank ID: M-1 Installed: 2/1/1991 Substance: Diesel
Actual: 109 ft.	Facility ID: 9-102406 Tank Status: Permanently Out of Use Tank Capacity: Not reported Date Closed: 6/16/1997 Owner: VERIZON HAWAII 1177 BISHOP ST. P.O. BOX 2200 Hon.HI 96841 Kapolei, HI 96707	Tank ID: R-M-1 Installed: Not reported Substance: Diesel

<b>2</b> South 1/4-1/2 2016 ft.	<b>CAMPBELL INDUSTRIAL PARK 06/24/94 A</b> 1001 KAMUKILA BOULEVARD KAPOLEI, HI 96707	SHWS S104657404 N/A
--	--	---------------------------

Relative: Lower	SHWS: File Section : Type : Department 1 : Department 2 : Department 3 : Table : Island : Zip : Discovery Assesment and Remediation : Initial Site Screening Team Lead : ISST Assigned :	Central Private Not reported Not reported Not reported Sitelist Oahu Not reported Not reported Not reported Not reported
Actual: 69 ft.		

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site



Database(s) EDR ID Number  
EPA ID Number

CAMPBELL INDUSTRIAL PARK 06/24/94 A (Continued)

S104657404

ISST Date :	Not reported
ISST Priority :	Not reported
ISST Letter :	Not reported
Env Justice Eligible :	Not reported
Preliminary Assessment :	Not reported
PA Lead :	Not reported
PA Date :	Not reported
PA Result :	Not reported
Site Investigation :	Not reported
SI Lead :	Not reported
SI Date :	Not reported
SI Result :	Not reported
Remediation Action Planned :	Not reported
VRP :	Not reported
Brownfields :	Not reported
Agreement :	Not reported
Remedial Investigation :	Not reported
RAA :	Not reported
Response Action Memo :	Not reported
REM Lead :	Not reported
REM Date :	Not reported
REM Last Update :	3/12/97
Input By :	TDao
Case :	Not reported
Fed Id :	Not reported
UST :	Not reported
Permits :	Not reported
RCRA :	Not reported
Program :	Not reported
Priority :	Not reported
Lat/Long :	Not reported
Cost :	Not reported
CU QNTY Site :	Not reported
Enforcement :	Not reported
CU Method :	Not reported
Ownership :	Not reported
Tax Map Key :	Not reported
Form :	Not reported
EPCRA :	Not reported
EPCRA FIL :	Not reported
Pathways :	Not reported
Targets :	Not reported
Manager :	Not reported
REM Result :	Not reported
Identifier :	Not reported
Site Code :	Not reported
Event :	Not reported
Event Type :	Not reported
Notes :	Final EPA file copy of Site Inspection Report dated 6/24/94 (for 5 sites at CIP: Hawn Western Steel, Ltd., Hwn. Western Steel Dump, Hw Metals Recycling Co., Leeward Auto Wreckers, & Brewer Envi. Indus. Inc.
Site :	Not reported
Site_ :	Not reported
Operator :	Not reported
Current :	Not reported
Compounds :	Not reported
Oname :	Not reported

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
EWA BEACH	S104534114	CHEMWOOD TREATMENT CO, INC.	91-476 KOMOHANA ST. CAMPBELL INDUS	96707	SHWS
HONOLULU	S104657421	HAWAII PROJECT MANAGEMENT (HPM)/HAW	KAOHI LOOP	96707	SHWS
HONOLULU COUNTY	S103783851	KANEHOHE BAY OIL DIESEL SIGHTED ALON	KANEHOHE BAY		SWFLF, SPILLS
KAPOLEI	1001024212	DIP LEG 2 THE GAS COMPANY	CRNR OF KALAELOA BLVD AND	96707	RCRIS-SQG, FINDS
KAPOLEI	1006821111	HAWAIIAN CEMENT - MAKAKILO	91-920 FARRINGTON HWY	96707	FINDS
KAPOLEI	1006821108	HAWAIIAN ELECTRIC COMPANY (HECO)-KAHE	92-200 FARRINGTON HWY	96707	FINDS
KAPOLEI	1005454982	GENERATING STATION	92-200 FARRINGTON HWY.	96707	TRIS
KAPOLEI	1005454982	HAWAIIAN ELECTRIC INDS. INC. KAHE	92-200 FARRINGTON HWY.	96707	TRIS
KAPOLEI	S104534170	GENERATING STATION	92-200 FARRINGTON HWY.	96707	TRIS
KAPOLEI	1000860458	HANUA STREET FUGITIVE OIL	HANUA ST	96707	SHWS, SPILLS
KAPOLEI	S105281992	HAWAII METAL RECYCLING CO	91 056 HANUA ST CAMPBELL IND	96707	CERCLIS, RCRIS-SQG, FINDS
KAPOLEI	1006820022	HAWAIIAN WESTERN STEEL REVOLVING FU	HAUNA ST. 91-150	96707	SPILLS
KAPOLEI	1006820022	CHEVRON PIPELINE BREAK AT HAWAIIAN	220 KOMOHANA ST	96707	FINDS
KAPOLEI	1006820795	REFRACTORIES	220 KOMOHANA ST	96707	FINDS
KAPOLEI	S104657515	KAMOKILA PARK WHITE POWDER ON GROUND	LAALOA ST	96707	FINDS
KAPOLEI	S104657515	TEXACO MALAKOLE STREET PIPELINE EXC	MALAKOLE ST	96707	SHWS, SPILLS
KAPOLEI	S104657409	DEEP DRAFT HARBOR PIER 5 CRUDE OIL	PIER 5 BARBORS POINT DEEP DRAFT HAR	96707	SHWS
KAPOLEI	S104657510	SINGLE BUOY MOORING BARBERS POINT H	SINGLE BUOY MOORING BARBERS POINT H	96707	SHWS
WAIMANALO GULCH, OAH	S106401348	WAIMANALO GULCH LANDFILL, EWA	94-460 FARRINGTON HWY	96707	SWFLF

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Elapsed ASTM days:** Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

### FEDERAL ASTM STANDARD RECORDS

#### **NPL: National Priority List**

Source: EPA

Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/04

Date Made Active at EDR: 05/21/04

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 05/04/04

Elapsed ASTM days: 17

Date of Last EDR Contact: 08/03/04

#### **NPL Site Boundaries**

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-564-7333

EPA Region 1  
Telephone 617-918-1143

EPA Region 3  
Telephone 215-814-5418

EPA Region 4  
Telephone 404-562-8033

EPA Region 6  
Telephone: 214-655-6659

EPA Region 8  
Telephone: 303-312-6774

#### **Proposed NPL: Proposed National Priority List Sites**

Source: EPA

Telephone: N/A

Date of Government Version: 04/27/04

Date Made Active at EDR: 05/21/04

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 05/04/04

Elapsed ASTM days: 17

Date of Last EDR Contact: 08/03/04

#### **CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System**

Source: EPA

Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 05/17/04

Date Made Active at EDR: 08/10/04

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 06/23/04

Elapsed ASTM days: 48

Date of Last EDR Contact: 06/23/04

#### **CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned**

Source: EPA

Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/17/04  
Date Made Active at EDR: 08/10/04  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 06/23/04  
Elapsed ASTM days: 48  
Date of Last EDR Contact: 06/23/04

### **CORRACTS: Corrective Action Report**

Source: EPA

Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/15/04  
Date Made Active at EDR: 08/10/04  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 06/25/04  
Elapsed ASTM days: 46  
Date of Last EDR Contact: 06/07/04

### **RCRIS: Resource Conservation and Recovery Information System**

Source: EPA

Telephone: 800-424-9346

Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/15/04  
Date Made Active at EDR: 07/20/04  
Database Release Frequency: Varies

Date of Data Arrival at EDR: 06/23/04  
Elapsed ASTM days: 27  
Date of Last EDR Contact: 08/24/04

### **ERNS: Emergency Response Notification System**

Source: National Response Center, United States Coast Guard

Telephone: 202-260-2342

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/03  
Date Made Active at EDR: 03/12/04  
Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/26/04  
Elapsed ASTM days: 46  
Date of Last EDR Contact: 07/28/04

### **FEDERAL ASTM SUPPLEMENTAL RECORDS**

#### **BRS: Biennial Reporting System**

Source: EPA/NTIS

Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01  
Database Release Frequency: Biennially

Date of Last EDR Contact: 06/22/04  
Date of Next Scheduled EDR Contact: 09/13/04

#### **CONSENT: Superfund (CERCLA) Consent Decrees**

Source: EPA Regional Offices

Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A  
Database Release Frequency: Varies

Date of Last EDR Contact: N/A  
Date of Next Scheduled EDR Contact: N/A

**GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING**

**ROD: Records Of Decision**

Source: EPA

Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/08/04  
Database Release Frequency: Annually

Date of Last EDR Contact: 07/07/04  
Date of Next Scheduled EDR Contact: 10/04/04

**DELISTED NPL: National Priority List Deletions**

Source: EPA

Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/04  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/03/04  
Date of Next Scheduled EDR Contact: 11/01/04

**FINDS: Facility Index System/Facility Identification Initiative Program Summary Report**

Source: EPA

Telephone: N/A

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/08/04  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/06/04  
Date of Next Scheduled EDR Contact: 10/04/04

**HMIRS: Hazardous Materials Information Reporting System**

Source: U.S. Department of Transportation

Telephone: 202-366-4555

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 02/17/04  
Database Release Frequency: Annually

Date of Last EDR Contact: 04/20/04  
Date of Next Scheduled EDR Contact: 07/19/04

**MLTS: Material Licensing Tracking System**

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/19/04  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/06/04  
Date of Next Scheduled EDR Contact: 10/04/04

**MINES: Mines Master Index File**

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959

Date of Government Version: 03/05/04  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 06/30/04  
Date of Next Scheduled EDR Contact: 09/27/04

**NPL LIENS: Federal Superfund Liens**

Source: EPA

Telephone: 202-564-4267

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

**GOVERNMENT RECORDS SEARCHED//DATA CURRENCY TRACKING**

Date of Government Version: 10/15/91  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 08/23/04  
Date of Next Scheduled EDR Contact: 11/22/04

**PADS: PCB Activity Database System**

Source: EPA  
Telephone: 202-564-3887  
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/30/04  
Database Release Frequency: Annually

Date of Last EDR Contact: 08/10/04  
Date of Next Scheduled EDR Contact: 11/08/04

**DOD: Department of Defense Sites**

Source: USGS  
Telephone: 703-692-8801  
This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 08/12/04  
Date of Next Scheduled EDR Contact: 11/08/04

**STORMWATER: Storm Water General Permits**

Source: Environmental Protection Agency  
Telephone: 202 564-0746  
A listing of all facilities with Storm Water General Permits.

Date of Government Version: N/A  
Database Release Frequency: Quarterly

Date of Last EDR Contact: N/A  
Date of Next Scheduled EDR Contact: N/A

**INDIAN RESERV: Indian Reservations**

Source: USGS  
Telephone: 202-208-3710  
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 10/01/03  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 08/12/04  
Date of Next Scheduled EDR Contact: 11/08/04

**US BROWNFIELDS: A Listing of Brownfields Sites**

Source: Environmental Protection Agency  
Telephone: 202-566-2777  
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 04/14/04  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 06/14/04  
Date of Next Scheduled EDR Contact: 09/13/04

**RMP: Risk Management Plans**

Source: Environmental Protection Agency  
Telephone: 202-564-8600  
When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

**GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING**

Date of Government Version: N/A  
Database Release Frequency: N/A

Date of Last EDR Contact: N/A  
Date of Next Scheduled EDR Contact: N/A

**FUDS: Formerly Used Defense Sites**

Source: U.S. Army Corps of Engineers  
Telephone: 202-528-4285

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 10/01/03  
Database Release Frequency: Varies

Date of Last EDR Contact: 07/06/04  
Date of Next Scheduled EDR Contact: 10/04/04

**UMTRA: Uranium Mill Tailings Sites**

Source: Department of Energy  
Telephone: 505-845-0011

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized. In 1978, 24 inactive uranium mill tailings sites in Oregon, Idaho, Wyoming, Utah, Colorado, New Mexico, Texas, North Dakota, South Dakota, Pennsylvania, and on Navajo and Hopi tribal lands, were targeted for cleanup by the Department of Energy.

Date of Government Version: 04/22/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 06/21/04  
Date of Next Scheduled EDR Contact: 09/20/04

**RAATS: RCRA Administrative Action Tracking System**

Source: EPA  
Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 06/07/04  
Date of Next Scheduled EDR Contact: 09/06/04

**TRIS: Toxic Chemical Release Inventory System**

Source: EPA  
Telephone: 202-566-0250

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/01  
Database Release Frequency: Annually

Date of Last EDR Contact: 08/22/04  
Date of Next Scheduled EDR Contact: 09/20/04

**TSCA: Toxic Substances Control Act**

Source: EPA  
Telephone: 202-260-5521

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/02  
Database Release Frequency: Every 4 Years

Date of Last EDR Contact: 06/07/04  
Date of Next Scheduled EDR Contact: 09/06/04

**FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)**

Source: EPA  
Telephone: 202-564-2501



**GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING**

Date of Government Version: 04/13/04  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/21/04  
Date of Next Scheduled EDR Contact: 09/20/04

**SSTS: Section 7 Tracking Systems**

Source: EPA  
Telephone: 202-564-5008

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/01  
Database Release Frequency: Annually

Date of Last EDR Contact: 07/20/04  
Date of Next Scheduled EDR Contact: 10/18/04

**FTTS: FIFRA/TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)**

Source: EPA/Office of Prevention, Pesticides and Toxic Substances  
Telephone: 202-564-2501

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/13/04  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/21/04  
Date of Next Scheduled EDR Contact: 09/20/04

**STATE OF HAWAII ASTM STANDARD RECORDS**

**SHWS: Sites List**

Source: Department of Health  
Telephone: 808-586-4249

Facilities, sites or areas in which the Office of Hazard Evaluation and Emergency Response has an interest, has investigated or may investigate under HRS 128D (includes CERCLIS sites).

Date of Government Version: 07/12/01  
Date Made Active at EDR: 10/16/01  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 09/24/01  
Elapsed ASTM days: 22  
Date of Last EDR Contact: 06/23/04

**SWF/LF: Permitted Landfills in the State of Hawaii**

Source: Department of Health  
Telephone: 808-586-4245

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/19/04  
Date Made Active at EDR: 06/22/04  
Database Release Frequency: Varies

Date of Data Arrival at EDR: 05/20/04  
Elapsed ASTM days: 33  
Date of Last EDR Contact: 07/26/04

**LUST: Leaking Underground Storage Tank Database**

Source: Department of Health  
Telephone: 808-586-4228

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/01/04  
Date Made Active at EDR: 07/29/04  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 06/30/04  
Elapsed ASTM days: 29  
Date of Last EDR Contact: 06/30/04

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### UST: Underground Storage Tank Database

Source: Department of Health  
Telephone: 808-586-4228

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 05/01/04  
Date Made Active at EDR: 07/29/04  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 06/30/04  
Elapsed ASTM days: 29  
Date of Last EDR Contact: 06/30/04

### VCP: Voluntary Response Program Sites

Source: Department of Health  
Telephone: 808-586-4249

Date of Government Version: 10/10/03  
Date Made Active at EDR: 10/21/03  
Database Release Frequency: Varies

Date of Data Arrival at EDR: 10/13/03  
Elapsed ASTM days: 8  
Date of Last EDR Contact: 06/25/04

### STATE OF HAWAII ASTM SUPPLEMENTAL RECORDS

#### SPILLS: Release Notifications

Source: Department of Health  
Telephone: 808-586-4249

Releases of hazardous substances to the environment reported to the Office of Hazard Evaluation and Emergency Response since 1988.

Date of Government Version: 09/01/00  
Database Release Frequency: Varies

Date of Last EDR Contact: 06/23/04  
Date of Next Scheduled EDR Contact: 09/20/04

### EDR PROPRIETARY HISTORICAL DATABASES

**Former Manufactured Gas (Coal Gas) Sites:** The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

#### Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

### BROWNFIELDS DATABASES

#### BROWNFIELDS: Brownfields Sites

Source: Department of Health  
Telephone: 808-586-4249

Date of Government Version: 10/10/03  
Database Release Frequency: Varies

Date of Last EDR Contact: 06/25/04  
Date of Next Scheduled EDR Contact: 09/20/04

#### VCP: Voluntary Response Program Sites

Source: Department of Health  
Telephone: 808-586-4249

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/04/03  
Database Release Frequency: Varies

Date of Last EDR Contact: 06/25/04  
Date of Next Scheduled EDR Contact: 09/20/04

### US BROWNFIELDS: A Listing of Brownfields Sites

Source: Environmental Protection Agency  
Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities-especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: N/A  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: N/A  
Date of Next Scheduled EDR Contact: N/A

### OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

**Oil/Gas Pipelines:** This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

#### Electric Power Transmission Line Data

Source: PennWell Corporation  
Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

#### AHA Hospitals:

Source: American Hospital Association, Inc.  
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

#### Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services  
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

#### Nursing Homes

Source: National Institutes of Health  
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

#### Public Schools

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

**GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING**

**Private Schools**

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

**STREET AND ADDRESS INFORMATION**

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## GEOCHECK PHYSICAL SETTING SOURCE ADDENDUM

### TARGET PROPERTY ADDRESS

HAWAIIAN WATERS ADVENTURE PARK PHASE I  
491 FARRINGTON HWY  
KAPOLEI, HI 96707

### TARGET PROPERTY COORDINATES

Latitude (North): 21.335300 - 21° 20' 7.1"  
Longitude (West): 158.087708 - 158° 5' 15.7"  
Universal Transverse Mercator: Zone 4  
UTM X (Meters): 594605.4  
UTM Y (Meters): 2359392.0  
Elevation: 128 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

# GEOCHECK - PHYSICAL SETTING SOURCE SUMMARY

**GROUNDWATER FLOW DIRECTION INFORMATION**

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

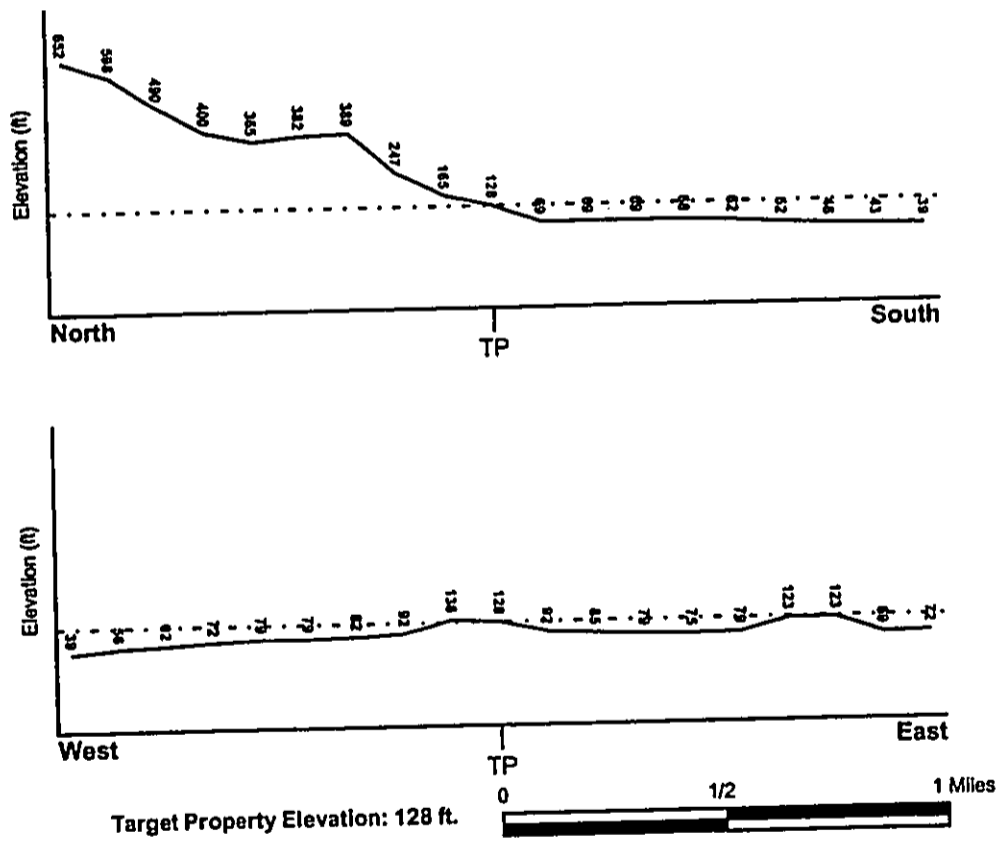
**TOPOGRAPHIC INFORMATION**

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

**TARGET PROPERTY TOPOGRAPHY**

USGS Topographic Map: 21158-C1 EWA, HI  
 General Topographic Gradient: General South  
 Source: USGS 7.5 min quad index

**SURROUNDING TOPOGRAPHY: ELEVATION PROFILES**



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

**GEOCHECK® PHYSICAL SETTING SOURCE SUMMARY**

**HYDROLOGIC INFORMATION**

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

**FEMA FLOOD ZONE**

<u>Target Property County</u> HONOLULU, HI	<u>FEMA Flood Electronic Data</u> YES - refer to the Overview Map and Detail Map
Flood Plain Panel at Target Property:	1500010130C
Additional Panels in search area:	Not Reported

**NATIONAL WETLAND INVENTORY**

<u>NWI Quad at Target Property</u> EWA	<u>NWI Electronic Data Coverage</u> YES - refer to the Overview Map and Detail Map
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**HYDROGEOLOGIC INFORMATION**

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

**AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

**GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY**

**GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

**GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY**

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

**ROCK STRATIGRAPHIC UNIT**

**GEOLOGIC AGE IDENTIFICATION**

Era: -  
System: -  
Series: -  
Code: N/A (decoded above as Era, System & Series)

Category: -

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.F. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Belkman Map, USGS Digital Data Series DDS - 11 (1994).

**DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY**

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: WAHIAWA  
Soil Surface Texture: silty clay  
Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.  
Soil Drainage Class: Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.  
Hydric Status: Soil does not meet the requirements for a hydric soil.  
Corrosion Potential - Uncoated Steel: MODERATE  
Depth to Bedrock Min: > 60 inches  
Depth to Bedrock Max: > 60 inches



**GEOCHECK'S PHYSICAL SETTING SOURCE SUMMARY**

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	12 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Kaolinitic suffix for MH	Max: 6.00 Min: 2.00	Max: 6.00 Min: 5.10
2	12 inches	60 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Kaolinitic suffix for MH	Max: 6.00 Min: 2.00	Max: 7.30 Min: 5.60

**OTHER SOIL TYPES IN AREA**

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: silty clay loam  
stony - silty clay  
stony - clay loam  
very stony - clay loam

Surficial Soil Types: silty clay loam  
stony - silty clay  
stony - clay loam  
very stony - clay loam

Shallow Soil Types: No Other Soil Types

Deeper Soil Types: silty clay loam  
stratified  
unweathered bedrock

**ADDITIONAL ENVIRONMENTAL RECORD SOURCES**

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

**GEOCHECK - PHYSICAL SETTING SOURCE SUMMARY**

**WELL SEARCH DISTANCE INFORMATION**

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

**FEDERAL USGS WELL INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A2	USGS0224560	1/8 - 1/4 Mile ENE
B3	USGS0224431	1/2 - 1 Mile SSW
B5	USGS0224432	1/2 - 1 Mile SSW
D8	USGS0224650	1/2 - 1 Mile NE
D9	USGS0224651	1/2 - 1 Mile NE
D10	USGS0224649	1/2 - 1 Mile NE
D11	USGS0224652	1/2 - 1 Mile NE
C13	USGS0224437	1/2 - 1 Mile SSE
F16	USGS0224429	1/2 - 1 Mile SSW
E18	USGS0224427	1/2 - 1 Mile South
E19	USGS0224425	1/2 - 1 Mile South
G22	USGS022-1492	1/2 - 1 Mile SSE
H25	USGS0224639	1/2 - 1 Mile ENE
I26	USGS0224667	1/2 - 1 Mile NE
28	USGS0224489	1/2 - 1 Mile South
I29	USGS0224666	1/2 - 1 Mile NE
J32	USGS0224555	1/2 - 1 Mile East
K33	USGS0224575	1/2 - 1 Mile WNW

**FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
H24	HI0000335	1/2 - 1 Mile ENE

Note: PWS System location is not always the same as well location.

**STATE DATABASE WELL INFORMATION**

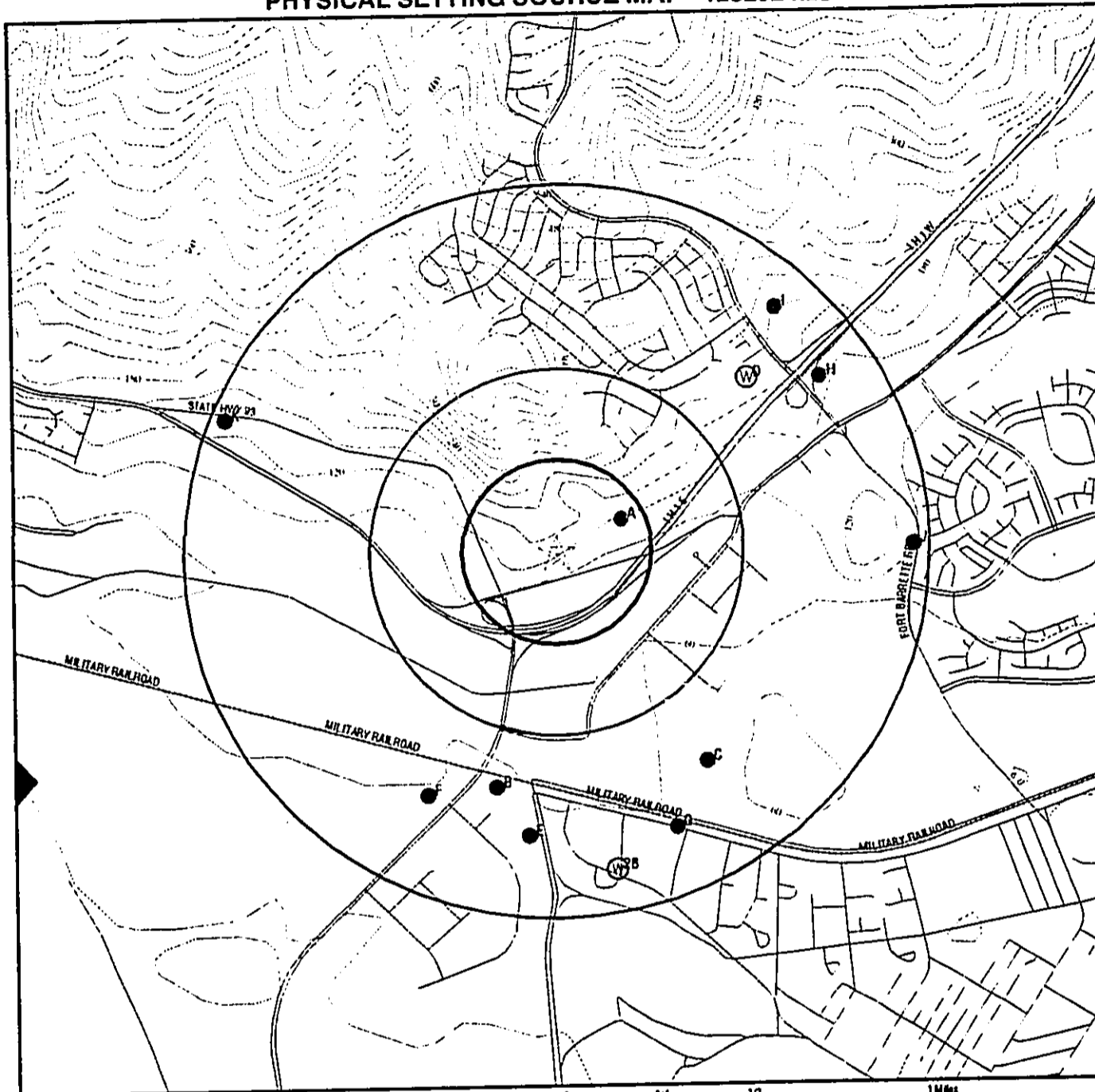
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A1	3-2005-001	1/8 - 1/4 Mile ENE
B4	3-1905-004	1/2 - 1 Mile SSW
B6	3-1905-005	1/2 - 1 Mile SSW
C7	3-1905-010	1/2 - 1 Mile SE
C12	3-1905-008	1/2 - 1 Mile SE
E14	3-1905-009	1/2 - 1 Mile South
F15	3-1905-002	1/2 - 1 Mile SSW
E17	3-1905-007	1/2 - 1 Mile South

**GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY**

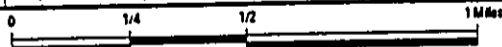
**STATE DATABASE WELL INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
E20	3-1905-006	1/2 - 1 Mile South
G21	3-1905-003	1/2 - 1 Mile SSE
H23	3-2004-004	1/2 - 1 Mile ENE
I27	3-2004-003	1/2 - 1 Mile NE
I30	3-2004-002	1/2 - 1 Mile NE
J31	3-2004-001	1/2 - 1 Mile East
K34	3-2006-012	1/2 - 1 Mile WNW

PHYSICAL SETTING SOURCE MAP - 1262024.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location



<b>TARGET PROPERTY:</b>	Hawaiian Waters Adventure Park Phase I	<b>CUSTOMER:</b>	Environet
<b>ADDRESS:</b>	491 Farrington Hwy	<b>CONTACT:</b>	Ida K. Namur
<b>CITY/STATE/ZIP:</b>	Kapolei HI 96707	<b>INQUIRY #:</b>	1262024.2s
<b>LAT/LONG:</b>	21.3353 / 158.0877	<b>DATE:</b>	September 02, 2004 1:07 pm

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**GEOCHECK - PHYSICAL SETTING SOURCE MAP FINDINGS**

Map ID	Direction	Distance	Elevation	Database	EDR ID Number
A1	ENE	1/8 - 1/4 Mile	Lower	HI WELLS	3-2005-001
Wid:	3-2005-001	Island Code:	3		
Island Name:	Oahu	Well no:	2005-01		
Well name:	Honoulluli	Old name:	Not Reported		
Yr drilled:	1971	Driller:	ROSCOE MOSS		
Quad_map:	06	Latitude:	212023		
Longitude:	1580516	UTM:	Y		
Gps:	N	Owner/user:	Pac Conc Quar		
Old number:	Not Reported	Well_type:	PER		
Type:	Percussion Drill	Casing dia:	12		
Ground Elev:	120	Well depth:	142		
Solid casing Depth:	105	Perf casing Depth:	120		
Use:	SLD	Use Desc:	Sealed		
Use year:	77	Water Top Elev:	22		
Chloride value:	0	Test date:	Not Reported		
Pumping Test rate:	856	Drop in water Lvl:	1.2		
Chloride Test:	375	Temperature:	Not Reported		
Units:	Not Reported	Pump Capacity:	0		
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported		
Geology:	TWB	Geology desc:	Tertiary Waianae basalt (lower member)		
Installed:	Not Reported	Last Measured:	Not Reported		
Max chlorides:	Not Reported	Max Cl year:	0		
Min chlorides:	04/01/1972 00:00:00	Min Cl year:	0		
Bot_hole depth:	-22	bot_solid depth:	15		
Bot_perf depth:	0	Well Capacity:	713		
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported		
Tax map key:	9-1-016:009	Aquifer code:	30204		
Latest head mmt:	0	Cur head mmt:	Not Reported		
Current Cl mmt:	Not Reported	Const. Date:	01/01/1971 00:00:00		
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported		
Transmissivity:	0	Pump intake elev:	Not Reported		
Pump depth:	Not Reported				

A2	ENE	1/8 - 1/4 Mile	Lower	FED USGS	USGS0224560
Agency:	USGS	Site ID:	212023158051601		
Site Name:	3-2005-01 W275-5 MAK				
Dec. Latitude:	21.33656				
Dec. Longitude:	-158.08503				
Coord Sys:	NAD83				
State:	HI				
County:	Honolulu County				
Altitude:	125.00				
Hydrologic code:	20060000				
Topographic:	Not Reported				
Site Type:	Ground-water other than Spring	Inven Date:	Not Reported		
Const Date:	19710101				
Well Type:	Single well, other than collector or Ranney type				

**GEOCHEMICAL PHYSICAL SETTING SOURCE MAP FINDINGS**

Primary Aquifer: Not Reported  
 Aquifer type: Not Reported  
 Well depth: 170  
 Hole depth: Not Reported Source: Not Reported  
 Project no: Not Reported

Ground-water levels, Number of Measurements: 0

**B3**  
**SSW**  
 1/2 - 1 Mile  
 Lower  
 FED USGS USGS0224431

Agency: USGS Site ID: 211945156053401  
 Site Name: 3-1905-04 EWA DESALT PLANT  
 Dec. Latitude: 21.32601  
 Dec. Longitude: -158.09003  
 Coord Sys: NAD83  
 State: HI  
 County: Honolulu County  
 Altitude: 60.  
 Hydrologic code: 20060000  
 Topographic: Hillside (slope)  
 Site Type: Ground-water other than Spring  
 Const Date: 198712 Inven Date: 19880223  
 Well Type: Single well, other than collector or Ranney type  
 Primary Aquifer: Not Reported  
 Aquifer type: Not Reported  
 Well depth: 380.  
 Hole depth: 380. Source: other government (other than USGS)  
 Project no: Not Reported

Ground-water levels, Number of Measurements: 0

**B4**  
**SSW**  
 1/2 - 1 Mile  
 Lower  
 HI WELLS 3-1905-004

Wid:	3-1905-004	Island Code:	3
Island Name:	Oahu	Well no:	1905-04
Well name:	Ewa Desalt Basal	Old name:	Not Reported
Yr drilled:	1988	Driller:	ROSCOE MOSS
Quad_map:	06	Latitude:	211945
Longitude:	1580534	UTM:	Y
Gps:	N	Owner/user:	State Dowald
Old number:	Not Reported	Well_type:	PER
Type:	Percussion Drill	Casing dia:	12
Ground Elev:	Not Reported	Well depth:	380
Solid casing Depth:	275	Perf casing Depth:	Not Reported
Use:	UNU	Use Desc:	Unused
Use year:	95	Water Top Elev:	0
Chloride value:	0	Test date:	01/19/1988 00:00:00
Pumping Test rate:	500	Drop in water Lvl:	1.0
Chloride Test:	510	Temperature:	23.3
Units:	C	Pump Capacity:	780
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported

**GEOCHECK - PHYSICAL SETTING SOURCE MAP FINDINGS**

Max chlorides:	06/30/1994 00:00:00	Max Cl year:	94
Min chlorides:	05/04/1995 00:00:00	Min Cl year:	94
Bot_hole depth:	Not Reported	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	500
Pump Capacity:	1.123	Draft (mgd):	Not Reported
Tax map key:	9-1-015:012	Aquifer code:	30204
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	495	Const. Date:	02/01/1988 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

**B5**  
SSW  
1/2 - 1 Mile  
Lower

FED USGS USGS0224432

Agency:	USGS	Site ID:	211945158053501
Site Name:	3-1905-05 EWA DESALT PLANT		
Dec. Latitude:	21.32601		
Dec. Longitude:	-158.09031		
Coord Sys:	NAD83		
State:	HI		
County:	Honolulu County		
Altitude:	60.		
Hydrologic code:	20060506		
Topographic:	Hillside (slope)		
Site Type:	Ground-water other than Spring		
Const Date:	198712	Inven Date:	19880223
Well Type:	Single well, other than collector or Ranney type		
Primary Aquifer:	Not Reported		
Aquifer type:	Not Reported		
Well depth:	78.		
Hole depth:	79.	Source:	other government (other than USGS)
Project no:	Not Reported		

Ground-water levels, Number of Measurements: 0

**B6**  
SSW  
1/2 - 1 Mile  
Lower

HI WELLS 3-1905-005

Wid:	3-1905-005	Island Code:	3
Island Name:	Oahu	Well no:	1905-05
Well name:	Caprock 1	Old name:	Not Reported
Yr drilled:	1988	Driller:	ROSCOE MOSS
Quad_map:	06	Latitude:	211945
Longitude:	1580536	UTM:	Y
Gps:	N	Owner/user:	State Dowald
Old number:	Not Reported	Well_type:	PER
Type:	Percussion Drill	Casing dia:	14
Ground Elev:	Not Reported	Well depth:	80

**GEOCHECK: PHYSICAL SETTING SOURCE MAP FINDINGS**

Solid casing Depth: 52  
 Use: UNU  
 Use year: 91  
 Chloride value: 0  
 Pumping Test rate: 100  
 Chloride Test: 970  
 Units: C  
 Annual Draft: Not Reported  
 Geology: Not Reported  
 Installed: Not Reported  
 Max chlorides: Not Reported  
 Min chlorides: Not Reported  
 Bot\_hole depth: Not Reported  
 Bot\_perf depth: Not Reported  
 Pump Capacity: Not Reported  
 Tax map key: 9-1-015:012  
 Latest head mmt: 0  
 Current Cl mmt: Not Reported  
 Pump Inst. Date: Not Reported  
 Transmissivity: 0  
 Pump depth: Not Reported

Perf casing Depth: 80  
 Use Desc: Unused  
 Water Top Elev: 0  
 Test date: 02/17/1988 00:00:00  
 Drop in water Lvl: 15.1  
 Temperature: 24.4  
 Pump Capacity: 0  
 Static Water Lvl: Not Reported  
 Geology desc: Not Reported  
 Last Measured: Not Reported  
 Max Cl year: 0  
 Min Cl year: 0  
 bot\_solid depth: Not Reported  
 Well Capacity: 7  
 Draft (mgd): Not Reported  
 Aquifer code: 30207  
 Cur head mmt: Not Reported  
 Const. Date: 02/01/1988 00:00:00  
 Surveyor: Not Reported  
 Pump intake elev: Not Reported

C7  
 SE  
 1/2 - 1 Mile  
 Lower

HI WELLS 3-1905-010

Wid: 3-1905-010  
 Island Name: Oahu  
 Well name: Kapolei Irr 2  
 Yr drilled: 1993  
 Quad\_map: 06  
 Longitude: 1580504  
 Gps: N  
 Old number: Not Reported  
 Type: Rotary Drill  
 Ground Elev: 65  
 Solid casing Depth: 54  
 Use: IRR  
 Use year: 94  
 Chloride value: 450  
 Pumping Test rate: 600  
 Chloride Test: 470  
 Units: Not Reported  
 Annual Draft: Not Reported  
 Geology: Not Reported  
 Installed: 94  
 Max chlorides: 03/11/1996 00:00:00  
 Min chlorides: 11/21/1997 00:00:00  
 Bot\_hole depth: -29  
 Bot\_perf depth: -29  
 Pump Capacity: .792  
 Tax map key: 9-1-016:001  
 Latest head mmt: 0  
 Current Cl mmt: 785  
 Pump Inst. Date: 04/01/1994 00:00:00  
 Transmissivity: 0  
 Pump depth: 75

Island Code: 3  
 Well no: 1905-10  
 Old name: Not Reported  
 Driller: ROSCOE MOSS  
 Latitude: 211949  
 UTM: Y  
 Owner/user: Campbell Est  
 Well\_type: ROT  
 Casing dia: 14  
 Well depth: 94  
 Perf casing Depth: 94  
 Use Desc: Irrigation  
 Water Top Elev: 1.25  
 Test date: 08/05/1993 00:00:00  
 Drop in water Lvl: 9.7  
 Temperature: Not Reported  
 Pump Capacity: 550  
 Static Water Lvl: Not Reported  
 Geology desc: Not Reported  
 Last Measured: Not Reported  
 Max Cl year: 96  
 Min Cl year: 96  
 bot\_solid depth: 9  
 Well Capacity: 62  
 Draft (mgd): Not Reported  
 Aquifer code: 30208  
 Cur head mmt: Not Reported  
 Const. Date: 08/20/1993 00:00:00  
 Surveyor: ALDEN S KAJIOKA  
 Pump intake elev: -10



**GEOCHECK - PHYSICAL SETTING SOURCE MAP FINDINGS**

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**D8**  
**NE**  
 1/2 - 1 Mile  
 Higher

FED USGS      USGS0224650

Agency:	USGS	Site ID:	212043158045702
Site Name:	3-2004.01B		
Dec. Latitude:	21.34212		
Dec. Longitude:	-158.07975		
Coord Sys:	NAD83		
State:	HI		
County:	Honolulu County		
Altitude:	160.00		
Hydrologic code:	20060000		
Topographic:	Not Reported		
Site Type:	Ground-water other than Spring		
Const Date:	19670101	Inven Date:	Not Reported
Well Type:	Single well, other than collector or Ranney type		
Primary Aquifer:	Not Reported		
Aquifer type:	Not Reported		
Well depth:	Not Reported		
Hole depth:	20.0	Source:	Not Reported
Project no:	Not Reported		

Ground-water levels, Number of Measurements: 0

**D9**  
**NE**  
 1/2 - 1 Mile  
 Higher

FED USGS      USGS0224651

Agency:	USGS	Site ID:	212043158045703
Site Name:	3-2004.01C		
Dec. Latitude:	21.34212		
Dec. Longitude:	-158.07975		
Coord Sys:	NAD83		
State:	HI		
County:	Honolulu County		
Altitude:	160.00		
Hydrologic code:	20060000		
Topographic:	Not Reported		
Site Type:	Ground-water other than Spring		
Const Date:	19670101	Inven Date:	Not Reported
Well Type:	Single well, other than collector or Ranney type		
Primary Aquifer:	Not Reported		
Aquifer type:	Not Reported		
Well depth:	Not Reported		
Hole depth:	20.0	Source:	Not Reported
Project no:	Not Reported		

Ground-water levels, Number of Measurements: 0

**D10**  
**NE**  
 1/2 - 1 Mile  
 Higher

FED USGS      USGS0224649

**GEOCHEMICAL PHYSICAL SETTING SOURCE MAP FINDINGS**

Agency: USGS Site ID: 212043158045701  
 Site Name: 3-2004.01A  
 Dec. Latitude: 21.34212  
 Dec. Longitude: -158.07975  
 Coord Sys: NAD83  
 State: HI  
 County: Honolulu County  
 Altitude: 160.00  
 Hydrologic code: 20060000  
 Topographic: Not Reported  
 Site Type: Ground-water other than Spring  
 Const Date: 19670101 Inven Date: Not Reported  
 Well Type: Single well, other than collector or Ranney type  
 Primary Aquifer: Not Reported  
 Aquifer type: Not Reported  
 Well depth: Not Reported  
 Hole depth: 16.0 Source: Not Reported  
 Project no: Not Reported

Ground-water levels, Number of Measurements: 0

D11  
 NE  
 1/2 - 1 Mile  
 Higher

FED USGS USGS0224652

Agency: USGS Site ID: 212043158045704  
 Site Name: 3-2004.01D  
 Dec. Latitude: 21.34212  
 Dec. Longitude: -158.07975  
 Coord Sys: NAD83  
 State: HI  
 County: Honolulu County  
 Altitude: 160.00  
 Hydrologic code: 20060000  
 Topographic: Not Reported  
 Site Type: Ground-water other than Spring  
 Const Date: 19670101 Inven Date: Not Reported  
 Well Type: Single well, other than collector or Ranney type  
 Primary Aquifer: Not Reported  
 Aquifer type: Not Reported  
 Well depth: Not Reported  
 Hole depth: 20.0 Source: Not Reported  
 Project no: Not Reported

Ground-water levels, Number of Measurements: 0

C12  
 SE  
 1/2 - 1 Mile  
 Lower

HI WELLS 3-1905-008

**GEOCHECK - PHYSICAL SETTING - SOURCE MAP FINDINGS**

Wid:	3-1905-008	Island Code:	3
Island Name:	Oahu	Well no:	1905-08
Well name:	Kapolei Irr 1	Old name:	Not Reported
Yr drilled:	1991	Driller:	ROSCOE MOSS
Quad_map:	06	Latitude:	211949
Longitude:	1580502	UTM:	Y
Gps:	N	Owner/user:	Campbell Est
Old number:	Not Reported	Well_type:	PER
Type:	Percussion Drill	Casing dia:	12
Ground Elev:	65	Well depth:	84
Solid casing Depth:	64	Perf casing Depth:	84
Use:	IRR	Use Desc:	Irrigation
Use year:	94	Water Top Elev:	0
Chloride value:	0	Test date:	04/10/1991 00:00:00
Pumping Test rate:	750	Drop in water Lvl:	6.4
Chloride Test:	545	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	550
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	94	Last Measured:	Not Reported
Max chlorides:	02/28/1997 00:00:00	Max Cl year:	0
Min chlorides:	12/19/1997 00:00:00	Min Cl year:	0
Bot_hole depth:	-19	bot_solid depth:	1
Bot_perf depth:	-19	Well Capacity:	117
Pump Capacity:	.792	Draft (mgd):	Not Reported
Tax map key:	9-1-015:001	Aquifer code:	30208
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	935	Const. Date:	01/01/1991 00:00:00
Pump Inst. Date:	04/01/1994 00:00:00	Surveyor:	ALDEN S KAJIOKA
Transmissivity:	0	Pump Intake elev:	-10
Pump depth:	75		

C13  
SSE  
1/2 - 1 Mile  
Lower

FED USGS USGS0224437

Agency:	USGS	Site ID:	211947158050401
Site Name:	3-1905.04		
Dec. Latitude:	21.32656		
Dec. Longitude:	-158.0817		
Coord Sys:	NAD83		
State:	HI		
County:	Honolulu County		
Altitude:	55.00		
Hydrologic code:	20060000		
Topographic:	local depression		
Site Type:	Ground-water other than Spring		
Const Date:	19800901	Inven Date:	Not Reported
Well Type:	Single well, other than collector or Ranney type		
Primary Aquifer:	Not Reported		
Aquifer type:	Not Reported		
Well depth:	Not Reported		
Hole depth:	35.0	Source:	Not Reported
Project no:	Not Reported		

Ground-water levels, Number of Measurements: 0

**GEOCHECK - PHYSICAL SETTING SOURCE MAP FINDINGS**

Map ID	Direction	Distance	Elevation	Database	EDR ID Number
E14	South	1/2 - 1 Mile	Lower	HI WELLS	3-1905-009
Wid:	3-1905-009	Island Code:	3		
Island Name:	Oahu	Well no:	1905-09		
Well name:	Caprock 3	Old name:	Not Reported		
Yr drilled:	1992	Driller:	ROSCOE MOSS		
Quad_map:	06	Latitude:	211940		
Longitude:	1580530	UTM:	Y		
Gps:	N	Owner/user:	State Dowald		
Old number:	Not Reported	Well_type:	PER		
Type:	Percussion Drill	Casing dia:	12		
Ground Elev:	54	Well depth:	80		
Solid casing Depth:	60	Perf casing Depth:	80		
Use:	UNU	Use Desc:	Unused		
Use year:	92	Water Top Elev:	2.25		
Chloride value:	0	Test date:	10/05/1992 00:00:00		
Pumping Test rate:	600	Drop in water Lvl:	5.6		
Chloride Test:	900	Temperature:	24.5		
Units:	C	Pump Capacity:	780		
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported		
Geology:	Not Reported	Geology desc:	Not Reported		
Installed:	92	Last Measured:	Not Reported		
Max chlorides:	08/04/1994 00:00:00	Max Cl year:	94		
Min chlorides:	05/19/1994 00:00:00	Min Cl year:	94		
Bot_hole depth:	-26	boL_solid depth:	-6		
Bot_perf depth:	-26	Well Capacity:	107		
Pump Capacity:	1.123	Draft (mgd):	Not Reported		
Tax map key:	9-1-015:001	Aquifer code:	30207		
Latest head mmt:	0	Cur head mmt:	Not Reported		
Current Cl mmt:	735	Const. Date:	09/01/1992 00:00:00		
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported		
Transmissivity:	0	Pump intake elev:	Not Reported		
Pump depth:	Not Reported				

F15	SSW	1/2 - 1 Mile	Lower	HI WELLS	3-1905-002
Wid:	3-1905-002	Island Code:	3		
Island Name:	Oahu	Well no:	1905-02		
Well name:	Campbell Ind Pk	Old name:	Not Reported		
Yr drilled:	1957	Driller:	SAMSON-SMOCK		
Quad_map:	06	Latitude:	211944		
Longitude:	1580545	UTM:	Y		
Gps:	N	Owner/user:	Campbell Est		
Old number:	T84-	Well_type:	Not Reported		
Type:	Not Reported	Casing dia:	10		
Ground Elev:	62	Well depth:	90		

**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS**

Solid casing Depth:	3	Perf casing Depth:	Not Reported
Use:	OTH	Use Desc:	Other
Use year:	74	Water Top Elev:	2.1
Chloride value:	795	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop In water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	QLS	Geology desc:	Quaternary limestone deposits
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
BoL_hole depth:	-28	boL_solid depth:	59
BoL_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	9-1-015:001	Aquifer code:	30207
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1957 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

F16  
SSW  
1/2 - 1 Mile  
Lower

FED USGS USGS0224429

Agency:	USGS	Site ID:	211944158054501
Site Name:	3-1905-02 T84 BRB PT		
Dec. Latitude:	21.32573		
Dec. Longitude:	-158.09309		
Coord Sys:	NAD83		
State:	HI		
County:	Honolulu County		
Altitude:	62.00		
Hydrologic code:	20060000		
Topographic:	Not Reported		
Site Type:	Ground-water other than Spring		
Const Date:	19571125	Inven Date:	Not Reported
Well Type:	Single well, other than collector or Ranney type		
Primary Aquifer:	Not Reported		
Aquifer type:	Not Reported		
Well depth:	90.0		
Hole depth:	Not Reported	Source:	Not Reported
Project no:	Not Reported		

Ground-water levels, Number of Measurements: 0

E17  
South  
1/2 - 1 Mile  
Lower

HI WELLS 3-1905-007

**GEOCHEMICAL PHYSICAL SETTING SOURCE MAP FINDINGS**

Wid:	3-1905-007	Island Code:	3
Island Name:	Oahu	Well no:	1905-07
Well name:	Caprock 2	Old name:	Not Reported
Yr drilled:	1991	Driller:	ROSCOE MOSS
Quad_map:	06	Latitude:	211938
Longitude:	1580530	UTM:	Y
Gps:	N	Owner/user:	Honolulu Bws
Old number:	Not Reported	Well_type:	PER
Type:	Percussion Drill	Casing dia:	12
Ground Elev:	49	Well depth:	78
Solid casing Depth:	48	Perf casing Depth:	78
Use:	UNU	Use Desc:	Unused
Use year:	91	Water Top Elev:	.5
Chloride value:	0	Test date:	02/19/1991 00:00:00
Pumping Test rate:	625	Drop in water Lvl:	1.1
Chloride Test:	690	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	02/23/1993 00:00:00	Max Cl year:	93
Min chlorides:	06/02/1993 00:00:00	Min Cl year:	93
BoL_hole depth:	-29	bot_solid depth:	-1
BoL_perf depth:	-29	Well Capacity:	568
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	9-1-015:001	Aquifer code:	30207
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	02/01/1991 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

E18  
South  
1/2 - 1 Mile  
Lower

FED USGS USGS0224427

Agency:	USGS	Site ID:	211938158053007
Site Name:	3-1905-07 EWA DESALT PLANT		
Dec. Latitude:	21.32406		
Dec. Longitude:	-158.08892		
Coord Sys:	NAD83		
State:	HI		
County:	Honolulu County		
Altitude:	49		
Hydrologic code:	20060000		
Topographic:	Hillside (slope)		
Site Type:	Ground-water other than Spring		
Const Date:	19910119	Inven Date:	19920604
Well Type:	Single well, other than collector or Ranney type		
Primary Aquifer:	Not Reported		
Aquifer type:	Not Reported		
Well depth:	78		
Hole depth:	78	Source:	other government (other than USGS)
Project no:	Not Reported		

**GEOCHECK - PHYSICAL SETTING SOURCE MAP FINDINGS**

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1991-01-19	48.5	

E19  
South  
1/2 - 1 Mile  
Lower

FED USGS USGS0224425

Agency:	USGS	Site ID:	211937158053006
Site Name:	3-1905-06 EWA DESALT PLANT		
Dec. Latitude:	21.32379		
Dec. Longitude:	-158.08892		
Coord Sys:	NAD83		
State:	HI		
County:	Honolulu County		
Altitude:	Not Reported		
Hydrologic code:	20060000		
Topographic:	Not Reported		
Site Type:	Ground-water other than Spring	Inven Date:	19920604
Const Date:	19901105		
Well Type:	Single well, other than collector or Ranney type		
Primary Aquifer:	Not Reported		
Aquifer type:	Not Reported		
Well depth:	72	Source:	other government (other than USGS)
Hole depth:	73		
Project no:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1990-11-05	46	

E20  
South  
1/2 - 1 Mile  
Lower

HI WELLS 3-1905-006

Wid:	3-1905-006	Island Code:	3
Island Name:	Oahu	Well no:	1905-06
Well name:	Caprock 1	Old name:	Not Reported
Yr drilled:	1990	Driller:	ROSCOE MOSS
Quad_map:	06	Latitude:	211937
Longitude:	1580530	UTM:	Y
Gps:	N	Owner/user:	Honolulu Bws
Old number:	Not Reported	Well_type:	PER
Type:	Percussion Drill	Casing dia:	12
Ground Elev:	47	Well depth:	72

**GEOCHECK - PHYSICAL SETTING SOURCE MAP FINDINGS**

Solid casing Depth:	44	Perf casing Depth:	72
Use:	SLD	Use Desc:	Sealed
Use year:	92	Water Top Elev:	.4
Chloride value:	0	Test date:	12/03/1990 00:00:00
Pumping Test rate:	500	Drop in water Lvl:	5.3
Chloride Test:	630	Temperature:	24.4
Units:	C	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	-25	bot_solid depth:	-3
Bot_perf depth:	-25	Well Capacity:	94
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	9-1-015:001	Aquifer code:	30207
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	12/01/1990 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

G21  
SSE  
1/2 - 1 Mile  
Lower

HI WELLS 3-1905-003

Wid:	3-1905-003	Island Code:	3
Island Name:	Oahu	Well no:	1905-03
Well name:	Barbers Point	Old name:	Not Reported
Yr drilled:	1966	Driller:	ROSCOE MOSS
Quad_map:	06	Latitude:	211939
Longitude:	1580508	UTM:	Y
Gps:	N	Owner/user:	Hawn Tel Co
Old number:	275-4	Well_type:	PER
Type:	Percussion Drill	Casing dia:	8
Ground Elev:	56	Well depth:	70
Solid casing Depth:	Not Reported	Perf casing Depth:	Not Reported
Use:	OTH	Use Desc:	Other
Use year:	74	Water Top Elev:	2.3
Chloride value:	288	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	QLS	Geology desc:	Quaternary limestone deposits
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	-14	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	9-1-016:011	Aquifer code:	30208
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1966 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		



**GEOCHECK - PHYSICAL SETTING SOURCE MAP FINDINGS**

Map ID  
Direction  
Distance  
Elevation

Database EDR ID Number

G22  
SSE  
1/2 - 1 Mile  
Lower  
FED USGS USGS0224492

Agency: USGS Site ID: 211939158050801  
 Site Name: 3-1905.01 -03/W275-4  
 Dec. Latitude: 21.32434  
 Dec. Longitude: -158.08281  
 Coord Sys: NAD83  
 State: HI  
 County: Honolulu County  
 Altitude: 56.00  
 Hydrologic code: 20060000  
 Topographic: Flat surface  
 Site Type: Ground-water other than Spring  
 Const Date: 19660718 Inven Date: Not Reported  
 Well Type: Single well, other than collector or Ranney type  
 Primary Aquifer: Not Reported  
 Aquifer type: Not Reported  
 Well depth: 70.0 Source: Not Reported  
 Hole depth: 70.0  
 Project no: Not Reported

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1966-08-05	53.30	

H23  
ENE  
1/2 - 1 Mile  
Higher

HI WELLS 3-2004-004

Wid:	3-2004-004	Island Code:	3
Island Name:	Oahu	Well no:	2004-04
Well name:	Makakilo	Old name:	Not Reported
Yr drilled:	1981	Driller:	ROSCOE MOSS
Quad_map:	06	Latitude:	212043
Longitude:	1580446	UTM:	Y
Gps:	N	Owner/user:	Honolulu Bws
Old number:	Not Reported	Well_type:	PER
Type:	Percussion Drill	Casing dia:	14
Ground Elev:	141	Well depth:	268
Solid casing Depth:	188	Perf casing Depth:	Not Reported
Use:	MUN	Use Desc:	Municipal
Use year:	85	Water Top Elev:	14.9
Chloride value:	248	Test date:	04/10/1981 00:00:00
Pumping Test rate:	1118	Drop in water Lvl:	0.8
Chloride Test:	256	Temperature:	23.9
Units:	C	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported

**GEOCHECK: PHYSICAL SETTING SOURCE MAP FINDINGS**

Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	-127	bot_solid depth:	-47
Bot_perf depth:	Not Reported	Well Capacity:	1398
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	9-1-016:	Aquifer code:	30204
Lalest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	04/02/1981 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

H24  
ENE  
1/2 - 1 Mile  
Higher

FRDS PWS HI0000335

PWS ID:	HI0000335	PWS Status:	Not Reported
Date Initiated:	Not Reported	Date Deactivated:	Not Reported
PWS Name:	WAIPAHAU-EWA-WAIANA 87-1070 FARRINGTON HWY WAIANA, OAHU, HI 96792		

Treatment Objective: ORGANICS REMOVAL  
Treatment Process: ACTIVATED CARBON, GRANULAR  
Source: Ground water

Addressee / Facility: System Owner/Responsible Party  
MR. KAZU HAYASHIDA, MANAGER  
BOARD OF WATER SUPPLY  
630 SOUTH BERETANIA  
HONOLULU, HI 96843

Facility Latitude:	21 3 25.0000	Facility Longitude:	158 10 56.0000
Facility Latitude:	21 20 43.0000	Facility Longitude:	158 4 46.0000
Facility Latitude:	21 23 16.0000	Facility Longitude:	158 2 5.0000
Facility Latitude:	21 23 18.0000	Facility Longitude:	158 2 3.0000
Facility Latitude:	21 23 21.0000	Facility Longitude:	158 1 37.0000
Facility Latitude:	21 23 26.0000	Facility Longitude:	158 3 16.0000
Facility Latitude:	21 24 8.0000	Facility Longitude:	158 2 30.0000
Facility Latitude:	21 24 10.0000	Facility Longitude:	158 2 31.0000
Facility Latitude:	21 24 14.0000	Facility Longitude:	158 0 53.0000
Facility Latitude:	21 24 15.0000	Facility Longitude:	158 0 26.0000
Facility Latitude:	21 27 52.0000	Facility Longitude:	158 12 2.0000
Facility Latitude:	21 28 15.0000	Facility Longitude:	158 10 23.0000
Facility Latitude:	21 28 22.0000	Facility Longitude:	158 11 38.0000
Facility Latitude:	21 28 27.0000	Facility Longitude:	158 9 20.0000
Facility Latitude:	21 28 57.0000	Facility Longitude:	158 12 46.0000
Facility Latitude:	21 29 25.0000	Facility Longitude:	158 8 42.0000
Facility Latitude:	21 29 59.0000	Facility Longitude:	158 11 13.0000
Facility Latitude:	21 30 16.0000	Facility Longitude:	158 10 58.0000
Facility Latitude:	21 30 16.0000	Facility Longitude:	158 11 2.0000
Facility Latitude:	21 30 25.0000	Facility Longitude:	158 10 56.0000
Facility Latitude:	21 30 30.0000	Facility Longitude:	158 10 53.0000
Facility Latitude:	21 36 16.0000	Facility Longitude:	158 2 5.0000

**GEOCHEMICAL PHYSICAL SETTING SOURCE MAP FINDINGS**

Facility Latitude: 21 38 18.0000      Facility Longitude: 158 2 8.0000  
 Facility Latitude: 21 57 52.0000      Facility Longitude: 158 12 3.0000  
 City Served: EWA BEACH  
 City Served: KUNIA  
 City Served: MAKAKILO  
 City Served: WAIANAE  
 City Served: WAIPAHU  
 City Served: WAIPAHU EWA  
 Treatment Class: Mixed (treated and untreated)      Population: 122166

PWS currently has or had major violation(s) or enforcement: No

H25  
ENE  
1/2 - 1 Mile  
Higher

FED USGS USGS0224639

Agency: USGS      Site ID: 212036158044101  
 Site Name: 3-2004-04 BWS Makakilo Well Oahu HI  
 Dec. Latitude: 21.34217  
 Dec. Longitude: -158.07661  
 Coord Sys: NAD83  
 State: HI  
 County: Honolulu County  
 Altitude: 140.86  
 Hydrologic code: 20060000  
 Topographic: Flat surface  
 Site Type: Ground-water other than Spring  
 Const Date: 198103      Inven Date: Not Reported  
 Well Type: Single well, other than collector or Ranney type  
 Primary Aquifer: 120WNLF  
 Aquifer type: Unconfined single aquifer  
 Well depth: 268  
 Hole depth: 268      Source: driller  
 Project no: Not Reported

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1981-03-18	126.00	

I26  
NE  
1/2 - 1 Mile  
Higher

FED USGS USGS0224667

Agency: USGS      Site ID: 212053158045301  
 Site Name: 3-2004-03 W274-2 MAK  
 Dec. Latitude: 21.34489  
 Dec. Longitude: -158.07864  
 Coord Sys: NAD83  
 State: HI  
 County: Honolulu County  
 Altitude: 175.00  
 Hydrologic code: 20060000  
 Topographic: Not Reported  
 Site Type: Ground-water other than Spring  
 Const Date: 19411218      Inven Date: Not Reported  
 Well Type: Single well, other than collector or Ranney type

**GEOCHECK'S PHYSICAL SETTING SOURCE MAP FINDINGS**

Primary Aquifer: Not Reported  
 Aquifer type: Not Reported  
 Well depth: 190  
 Hole depth: Not Reported  
 Project no: Not Reported  
 Source: Not Reported

Ground-water levels, Number of Measurements: 0

127  
 NE  
 1/2 - 1 Mile  
 Higher  
 HI WELLS 3-2004-003

Wid:	3-2004-003	Island Code:	3
Island Name:	Oahu	Well no:	2004-03
Well name:	Ft. Barrette	Old name:	Not Reported
Yr drilled:	1941	Driller:	NAT WHITON
Quad_map:	06	Latitude:	212053
Longitude:	1580453	UTM:	Y
Gps:	N	Owner/user:	Chiyoda Pac
Old number:	Not Reported	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	12
Ground Elev:	175	Well depth:	190
Solid casing Depth:	182	Perf casing Depth:	Not Reported
Use:	UNU	Use Desc:	Unused
Use year:	94	Water Top Elev:	16.7
Chloride value:	243	Test date:	Not Reported
Pumping Test rate:	450	Drop in water Lvl:	5.0
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	15.0
Geology:	TWDC	Geology desc:	Tertiary Waianae basalt dike complex
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	-15	bot_solid depth:	-7
Bot_perf depth:	Not Reported	Well Capacity:	90
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	9-2-003:002	Aquifer code:	30204
Latest head mmt:	15	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1941 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

28  
 South  
 1/2 - 1 Mile  
 Lower

FED USGS USGS0224489

**GEOCHECK - PHYSICAL SETTING SOURCE MAP FINDINGS**

Agency: USGS Site ID: 211933158051701  
 Site Name: 3-1905.03A-D  
 Dec. Latitude: 21.32268  
 Dec. Longitude: -158.08531  
 Coord Sys: NAD83  
 State: HI  
 County: Honolulu County  
 Altitude: 50.00  
 Hydrologic code: 20060000  
 Topographic: Flat surface  
 Site Type: Ground-water other than Spring  
 Const Date: Not Reported Inven Date: Not Reported  
 Well Type: Drain dug to water table or potentiometric surface to either lower ground-water level or serve as a water supply  
 Primary Aquifer: Not Reported  
 Aquifer type: Not Reported  
 Well depth: Not Reported  
 Hole depth: 40.0 Source: Not Reported  
 Project no: Not Reported

Ground-water levels, Number of Measurements: 0

I29  
 NE FED USGS USGS0224666  
 1/2 - 1 Mile  
 Higher

Agency: USGS Site ID: 212053158045201  
 Site Name: 3-2004-02 W274-1 MAK  
 Dec. Latitude: 21.34489  
 Dec. Longitude: -158.07837  
 Coord Sys: NAD83  
 State: HI  
 County: Honolulu County  
 Altitude: 174.00  
 Hydrologic code: 20060000  
 Topographic: Not Reported  
 Site Type: Ground-water other than Spring  
 Const Date: 19370505 Inven Date: Not Reported  
 Well Type: Single well, other than collector or Ranney type  
 Primary Aquifer: Not Reported  
 Aquifer type: Not Reported  
 Well depth: 200  
 Hole depth: Not Reported Source: Not Reported  
 Project no: Not Reported

Ground-water levels, Number of Measurements: 0

I30  
 NE HI WELLS 3-2004-002  
 1/2 - 1 Mile  
 Higher

**GEOCHECK OF PHYSICAL SETTING SOURCE MAP FINDINGS**

Wid:	3-2004-002	Island Code:	3
Island Name:	Oahu	Well no:	2004-02
Well name:	Makakilo City	Old name:	Not Reported
Yr drilled:	1937	Driller:	MULLIN
Quad_map:	06	Latitude:	212053
Longitude:	1580452	UTM:	Y
Gps:	N	Owner/user:	Campbell Est
Old number:	Not Reported	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	6
Ground Elev:	174	Well depth:	200
Solid casing Depth:	167	Perf casing Depth:	Not Reported
Use:	OTH	Use Desc:	Other
Use year:	88	Water Top Elev:	14
Chloride value:	245	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	TWDC	Geology desc:	Tertiary Waianaa basalt dike complex
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	-26	bo_solid depth:	7
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	9-2-003:002	Aquifer code:	30204
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1937 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

J31  
East  
1/2 - 1 Mile  
Lower

HI WELLS 3-2004-001

Wid:	3-2004-001	Island Code:	3
Island Name:	Oahu	Well no:	2004-01
Well name:	Puu Kapolei	Old name:	Not Reported
Yr drilled:	1933	Driller:	MCCANDLESS
Quad_map:	06	Latitude:	212019
Longitude:	1580432	UTM:	Y
Gps:	N	Owner/user:	U S Navy
Old number:	Not Reported	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	12
Ground Elev:	89	Well depth:	147
Solid casing Depth:	96	Perf casing Depth:	102
Use:	OTH	Use Desc:	Other
Use year:	88	Water Top Elev:	19.2
Chloride value:	467	Test date:	Not Reported
Pumping Test rate:	465	Drop in water Lvl:	0.5
Chloride Test:	509	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	TWDC	Geology desc:	Tertiary Waianaa basalt dike complex
Installed:	Not Reported	Last Measured:	Not Reported

**GEOCHECK - PHYSICAL SETTING SOURCE MAP FINDINGS**

Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	-58	bot_solid depth:	-7
Bot_perf depth:	-13	Well Capacity:	930
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	9-1-016:002	Aquifer code:	30204
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1933 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

J32  
East  
1/2 - 1 Mile  
Lower

FED USGS USGS0224555

Agency:	USGS	Site ID:	212019158043201
Site Name:	3-2004-01 W275 MAKIL		
Dec. Latitude:	21.33545		
Dec. Longitude:	-158.07281		
Coord Sys:	NAD83		
State:	HI		
County:	Honolulu County		
Altitude:	89.00		
Hydrologic code:	20060000		
Topographic:	Not Reported		
Site Type:	Ground-water other than Spring		
Const Date:	19330106	Inven Date:	Not Reported
Well Type:	Single well, other than collector or Ranney type		
Primary Aquifer:	Not Reported		
Aquifer type:	Not Reported		
Well depth:	147		
Hole depth:	Not Reported	Source:	Not Reported
Project no:	Not Reported		

Ground-water levels, Number of Measurements: 0

K33  
WNW  
1/2 - 1 Mile  
Lower

FED USGS USGS0224575

Agency:	USGS	Site ID:	212038158061501
Site Name:	3-2006-12 Kahe Point Oahu HI		
Dec. Latitude:	21.34073		
Dec. Longitude:	-158.10142		
Coord Sys:	NAD83		
State:	HI		
County:	Honolulu County		
Altitude:	138.00		
Hydrologic code:	20060000		
Topographic:	Not Reported		
Site Type:	Ground-water other than Spring		
Const Date:	19380101	Inven Date:	Not Reported
Well Type:	Single well, other than collector or Ranney type		

**GEOCHECK - PHYSICAL SETTING SOURCE MAP FINDINGS**

Primary Aquifer: Not Reported  
 Aquifer type: Not Reported  
 Well depth: 150  
 Hole depth: Not Reported  
 Project no: Not Reported  
 Source: Not Reported

Ground-water levels, Number of Measurements: 12

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1999-09-17		13.93	1999-08-03		13.80
1999-05-25		13.91	1999-02-18		13.95
1998-09-23		13.99	1998-08-06		13.84
1998-05-28		13.95	1998-03-13		14.03
1997-12-16		14.26	1997-09-12		14.37
1997-06-19		14.21	1997-02-03		14.33

**K34  
 WNW  
 1/2 - 1 Mile  
 Lower**

**HI WELLS 3-2006-012**

Wid:	3-2006-012	Island Code:	3
Island Name:	Oahu	Well no:	2006-12
Well name:	Kahe Point	Old name:	Not Reported
Yr drilled:	1938	Driller:	MULLIN
Quad_map:	06	Latitude:	212038
Longitude:	1580615	UTM:	Y
Gps:	N	Owner/user:	Honolulu Bws
Old number:	T4-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	6
Ground Elev:	138	Well depth:	150
Solid casing Depth:	108	Perf casing Depth:	Not Reported
Use:	OBS	Use Desc:	Observation
Use year:	74	Water Top Elev:	17
Chloride value:	332	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	12.3
Geology:	TWDC	Geology desc:	Tertiary Waianae basalt dike complex
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	-12	bot_solid depth:	30
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	9-1-015:004	Aquifer code:	30204
Latest head mmt:	13.89	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Dale:	01/01/1938 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		



**GEOCHECK - PHYSICAL SETTING SOURCE MAP FINDINGS  
RADON**

**AREA RADON INFORMATION**

Federal EPA Radon Zone for HONOLULU County: 3

- Note: Zone 1 indoor average level > 4 pCi/L.
- : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
- : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 96707

Number of sites tested: 7

<u>Area</u>	<u>Average Activity</u>	<u>% &lt;4 pCi/L</u>	<u>% 4-20 pCi/L</u>	<u>% &gt;20 pCi/L</u>
Living Area - 1st Floor	0.143 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

### TOPOGRAPHIC INFORMATION

#### **USGS 7.5' Digital Elevation Model (DEM)**

Source: United States Geologic Survey  
EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps.

### HYDROLOGIC INFORMATION

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

### HYDROGEOLOGIC INFORMATION

#### **AQUIFLOW<sup>®</sup> Information System**

Source: EDR proprietary database of groundwater flow information  
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

### GEOLOGIC INFORMATION

#### **Geologic Age and Rock Stratigraphic Unit**

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

#### **STATSGO: State Soil Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Service  
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

### ADDITIONAL ENVIRONMENTAL RECORD SOURCES

#### **FEDERAL WATER WELLS**

##### **PWS: Public Water Systems**

Source: EPA/Office of Drinking Water  
Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

##### **PWS ENF: Public Water Systems Violation and Enforcement Data**

Source: EPA/Office of Drinking Water  
Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

##### **USGS Water Wells: USGS National Water Inventory System (NWIS)**

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

### STATE RECORDS

#### Ground Water Wells

Source: Department of Land and Natural Resources  
Telephone: 808-587-0242

### RADON

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

### OTHER

#### Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

#### Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration



"Linking Technology with Tradition"

## Sanborn® Map Report

**Ship To:** Ida K. Namur  
Environet  
2850 Paa Street  
Honolulu, HI 96819

**Order Date:** 9/2/2004    **Completion Date:** 9/3/2004

**Inquiry #:** 1262024.3s

**P.O. #:** NA

**Site Name:** Hawaiian Waters Adventure Park Phase I

**Address:** 491 Farrington Hwy

**City/State:** Kapolei, HI 96707

**Customer Project:** NA  
3012783MER    808-239-6803

**Cross Streets:**

This document reports that the largest and most complete collection of Sanborn fire insurance maps has been reviewed based on client supplied information, and fire insurance maps depicting the target property at the specified address were not identified.

**NO COVERAGE**

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***Appendix B***  
***Real Property Assessment Division Records***

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TERRITORY OF HAWAII  
TAX COMMISSIONER

Source: Id Ct App 1069-M-7172 Location: Honolulu, Swa. 1st  
 BY SL DATE 3/25/49 TIME NO. M-40149 2/2 ROUTE 1949 TAX REV. 91164 PROPERTY

TAX MAPS

New Print

TAX OFFICE

New Print

TEACHING

NEW PRINTS

T.M.B.

T.O.

F.A. LUGGER

RETURN PLATE

Por. Parcel 9-2-03-2 dropped & transferred into  
 9-1-16-6  
 Parcel 9-1-16-4 42,711 ac.  
 Parcel 9-1-16-6 342,903 ac.  
 23,271 ac.  
 408,885 ac.

Consolidation & Resubdivision as follows:

Par. 9-1-16-4 Revised Lot 312 Por Id Ct App 1069 120,434 ac.  
 Remaining sub-areas (Total) 187,045 ac.  
 Par. 9-1-16-6 " Lot 310 For Id Ct App 1069 307,479 ac.  
 " 9 New Lot 309 " 67,596 ac.  
 33,810 ac.  
 408,885 ac.

FORMER TAX KEY	CHANGE	FINAL DATA AS SHOWN ON TAX MAPS AS OF: 3/25/49	TAX KEY	AREA	OWNER
Consolidation		9 1 16 4	9 1 16 4	307,479 ac.	James Campbell Trust Estate (Ewa Plantation Co.) Ia.
Area		9 1 16 6	9 1 16 6	67,596 ac.	James Campbell Trust Estate (Hawaii Heat Co.) Ia
New		9 1 16 9	9 1 16 9	33,810 ac.	James Campbell Trust Estate (Ewa Plantation Co.) Ia

TERMINATION OF HAWAII  
TAX COMMISSIONER  
TAXATION MAPS BUREAU

SOURCE	DATE	DEED, ETC.	TAX NO.	AREA OF PARCEL	GRANTEE, ETC.	1962	9	16	9	DIV.
1. AB shown on tax map				33.810 Ac.	James Campbell Tr. Est. (Eva Plantation Co.) Le					
Ref. Cert 15,790										
2. TMB W-830'62 HN/P1	11/21/62			33.810 Ac.	do					
R/S: Reasement 161 deleted by Id Ct Ord										
dated 11/9/62 (Map 69).										
F/D: 9116-9: easement 161 out										
3. TMB 10921'68 (9110-2, etc)	JT/10 6/12/68			do	James Campbell Trust Est (Eva Sugar Co Inc) Le					
Cert of Messrs BK 6076 P-432	5/21/68									
5/29/68 Eva Plantation Co Inte Eva Sugar Co Inc.										
4. TMB 36355'69-70(9110-2 etc)DL/en	6/10/70			do	James Campbell Trust Estate					
A/L: Doc 300009-10 C-15790	SC1500									
Cons: \$10 4/9/70 5/1/70					(Oahu Sugar Co Ltd) Le					
5. TMB 22739'72-73	JY/en 2/8/73			33.789 Ac	do					
10.021 Ac, rd par 10) drpd into Rd										
Jdgmt, smd/Jdgmt & F/O/C: American Security Bank etal	CY 1/295, 1st Ctr No: State of Hawaii HK 8897 p 95 to 172									
Doc: 615482 C-15790 etal	12/11, 12/15/70 & 12/13/72 Mac 1/29/73									
F/D: Area & Idcity										
6. TMB W-465'72-73	JY/en 5/11/73			do	do					
E/S: Par 9116-9 designated as Lot 309-A.										
Map 227, Lot 309-A										
F/D: Lot 309-A										

CONTINUED ON PAGE 2 GRANTOR FULL DATA AS SHOWN ON TAX MAPS





09/30/99-----  
INSTR-DESC: LUC MAP R/S

TMB:M990000382  
INST-DATE: 11/09/99  
REC-DATE:

AREA: 30.26800 ACRE  
FORMER ZONING: A & U  
CHANGED TO: A & U (DUE TO SUBD)  
AGR: 3.72 AC  
URB: 26.548 AC  
TOTAL: 30.268 AC

CANCEL: TMB M93-466  
TMB NOTE: AREA BY MAPPING BRANCH FOR ASSESSMENT PURPOSES ONLY  
OWNERSHIP: NAME F TC %-OWNER TITLE-DESC  
F 0011 \*JAMES CAMPBELL TRUST ESTATE LE  
L 0011 \*WATERS OF KAPOLEI L.C.C.  
THE WATERS OF KAPOLEI L.C.C.

FOR ASSESSMENT YEAR 2001  
-PITT: 300 AREA: 1230483 F VALUE: 13584500 EXEMPT:  
-BLDG: 0001 CODE: 134 YB: 1999 VALUE: 4600300 EXEMPT:  
-BLDG: 0002 CODE: 134 YB: 1999 VALUE: EXEMPT:  
-BLDG: 0003 CODE: 136 YB: 1999 VALUE: EXEMPT:  
-BLDG: 0004 CODE: 136 YB: 1999 VALUE: EXEMPT:  
BLDG TOTALS--> VALUE: 4600300 EXEMPT:

NOTE: APPEAL EXISTS FOR THIS YEAR

FOR ASSESSMENT YEAR 2001  
-PITT: 500 AREA: 2.02000 A VALUE: 29300 EXEMPT:  
-BLDG: 0001 CODE: 134 YB: 1999 VALUE: EXEMPT:

NOTE: APPEAL EXISTS FOR THIS YEAR

FOR ASSESSMENT YEAR 2000  
-PITT: 300 AREA: 28.24800 A VALUE: 13584500 EXEMPT:  
-BLDG: 0001 CODE: 134 YB: 1999 VALUE: 853900 EXEMPT:  
-BLDG: 0002 CODE: 134 YB: 1999 VALUE: 675400 EXEMPT:  
-BLDG: 0003 CODE: 136 YB: 1999 VALUE: 1564000 EXEMPT:  
-BLDG: 0004 CODE: 136 YB: 1999 VALUE: 914500 EXEMPT:  
BLDG TOTALS--> VALUE: 4307800 EXEMPT:

FOR ASSESSMENT YEAR 2000  
-PITT: 500 AREA: 2.02000 A VALUE: 74700 EXEMPT:

SITE ADDRESS: 400 FARRINGTON HWY APT:

MAILING ADDRESS: JAMES CAMPBELL TRUST ESTATE  
1001 KAMOKILA BLVD 96707  
KAPOLEI HI

06/28/99-----  
INSTR-DESC: LCAPP 1069 MAP 977

TMB:M990000205  
INST-DATE: 07/22/99  
REC-DATE:

AREA: 30.26800 ACRE

TMK: 1 9 1 016 009 0000  
DESIGNATION OF SEWER ESMT "6862" {637 SF} &  
WATERLINE ESMT "6863" {315 SF} PER LCAPP 1069 MAP 977  
F/D: ESMTS  
OWNERSHIP: NAME F TC %-OWNER TITLE-DESC  
F 0011 \*JAMES CAMPBELL TRUST ESTATE  
L 0011 \*WATERS OF KAPOLEI L.C.C.  
THE WATERS OF KAPOLEI L.C.C.

PAGE: 2

MAILING ADDRESS: JAMES CAMPBELL TRUST EST  
1001 KAMOKILA BLVD  
KAPOLEI HI 96707

10/21/98-----  
INSTR-DESC: LCO TMB:T990002372  
INST-DATE: 10/19/98  
REC-DATE: 10/21/98  
LC-DOC-NO: 133059  
AREA: 30.26800 ACRE  
SHORT FORM GROUND LEASE DATED 9/1/98, FILED AS LD CT DOC 2480265,  
INADVERTENTLY EXCLUDED THE PERIODS IN PETITIONER'S NAME AND THAT  
PETITIONER'S REGISTERED AND OFFICIAL NAME IS THE WATERS OF KAPOLEI,  
L. L. C..  
F/D: KEYED ONLY - ADD PERIODS TO NAME  
OWNERSHIP: NAME F TC %-OWNER TITLE-DESC  
F 0011 \*JAMES CAMPBELL TRUST ESTATE  
L 0011 \*WATERS OF KAPOLEI L.C.C.  
THE WATERS OF KAPOLEI L.C.C.

MAILING ADDRESS: JAMES CAMPBELL TRUST EST  
1001 KAMOKILA BLVD  
KAPOLEI HI 96707

09/30/98-----  
INSTR-DESC: CORRECTION TMB:R980001783  
INST-DATE: 10/14/98  
REC-DATE:  
AREA: 30.26800 ACRE  
MAP 769 LCAPP 1069 SHOWS ESMT NUMBER AS "5173" & NOT "5175"  
F/D: ESMT NUMBER CORRECTED  
OWNERSHIP: NAME F TC %-OWNER TITLE-DESC  
F 0011 \*JAMES CAMPBELL TRUST ESTATE  
L 0011 \*THE WATERS OF KAPOLEI, LCC  
LE

FOR ASSESSMENT YEAR 1999  
-PITT: 500 AREA: 2.02000 A VALUE: 39400 EXEMPT:

FOR ASSESSMENT YEAR 1999  
-PITT: 800 AREA: 28.24800 A VALUE: 2259800 EXEMPT:

MAILING ADDRESS: JAMES CAMPBELL TRUST EST  
1001 KAMOKILA BLVD  
KAPOLEI HI 96707

08/25/98-----  
 INSTR-DESC: SHORT FORM GROUND LEASE TMB:T980038857  
 INST-DATE: 09/01/98  
 REC-DATE: 08/25/98  
 LC-DOC-NO: 2480265 CERT-NO: 513720 STATE-CONV-TAX: \$7,942.00  
 AREA: 30.26800 ACRE  
 FROM: TRUSTEES UNDER THE WILL AND OF THE ESTATE OF JAMES CAMPBELL, DEC  
 TO: THE WATERS OF KAPOLEI, LLC  
 TERM OF THIRTY (30) YEARS, COMMENCING ON SEPTEMBER 1, 1998  
 LOT 12758 30.268 AC MAP 934 LCAPP 1069  
 SUBJ/LE  
 TMB NOTE: LE TO PACIFIC CONCRETE & ROCK CO LTD EXPIRED 12/31/78.  
 OWNERSHIP: NAME F TC %-OWNER TITLE-DESC  
 F 0011 \*JAMES CAMPBELL TRUST ESTATE LE  
 L 0011 \*THE WATERS OF KAPOLEI, LLC

MAILING ADDRESS: \*THE WATERS OF KAPOLEI  
 7750 COLLEGE TOWN DR STE 300 95826  
 SACRAMENTO CA

07/01/98-----  
 INSTR-DESC: LCAPP 1069 MAP 934 TMB:M980000395  
 INST-DATE: 08/07/98  
 REC-DATE:  
 AREA: 30.26800 ACRE  
 OTHER-TMKS: 1 9 1 016 006 0000 ETC.  
 TO: 9116-6 24.125 AC LOT 11250  
 FROM: 9116-6 30.268 AC LOT 12758  
 F/D: AREA, BDRY; LOT 12758  
 OWNERSHIP: NAME F TC %-OWNER TITLE-DESC  
 F 0011 \*JAMES CAMPBELL TRUST ESTATE LE-UND INT  
 L 0011 \*PAC CONCRETE & ROCK CO LTD

MAILING ADDRESS: JAMES CAMPBELL TRUST EST  
 1001 KAMOKILA BLVD 96707  
 KAPOLEI HI

10/03/95-----  
 INSTR-DESC: LCAPP 1069 MAP 822 TMB:M950000694  
 INST-DATE: 02/02/96  
 REC-DATE:  
 AREA: 24.12500 ACRE  
 OTHER-TMKS: 1 9 1 016 006 0000 ETC.  
 TO: 9116-9 33.798 AC LOT 309-A  
 FROM: 9116-6 24.125 AC LOT 11250  
 TMB NOTE: LEASE TO OAHU SUGAR CO EXPIRED 6/30/95, PER JIM STANNEY,  
 CAMPBELL EST  
 F/D: AREA, BDRY; LOT 11250  
 OWNERSHIP: NAME F TC %-OWNER TITLE-DESC  
 F 0011 \*JAMES CAMPBELL TRUST ESTATE LE-UND INT  
 L 0011 \*PAC CONCRETE & ROCK CO LTD

FOR ASSESSMENT YEAR 1998

TMK: 1 9 1 016 009 0000  
 -PITT: 500 AREA: 2.02000 A VALUE: 39400 EXEMPT:  
 FOR ASSESSMENT YEAR 1998  
 -PITT: 800 AREA: 22.10500 A VALUE: 1253700 EXEMPT:  
 FOR ASSESSMENT YEAR 1997  
 -PITT: 500 AREA: 2.02000 A VALUE: 41400 EXEMPT:  
 FOR ASSESSMENT YEAR 1997  
 -PITT: 800 AREA: 22.10500 A VALUE: 1341700 EXEMPT:  
 FOR ASSESSMENT YEAR 1996  
 -PITT: 500 AREA: 2.02000 A VALUE: 44000 EXEMPT:  
 FOR ASSESSMENT YEAR 1996  
 -PITT: 800 AREA: 22.10500 A VALUE: 1436800 EXEMPT:

MAILING ADDRESS: JAMES CAMPBELL TRUST EST  
 1001 KAMOKILA BLVD 96707  
 KAPOLEI HI

12/30/94-----  
 INSTR-DESC: LCAPP 1069 MAP 769 TMB:M940000643  
 INST-DATE: 01/30/95  
 REC-DATE:

AREA: 33.78900 ACRE  
 OTHER-TMKS: 1 9 1 016 006 0000 ETC.  
 DESIGNATION OF ACCESS & UTILITY ESMT "5178" PER MAP 769 LCAPP 1069  
 F/D: ESMT F TC %-OWNER TITLE-DESC  
 OWNERSHIP: NAME LE  
 F 0011 \*JAMES CAMPBELL TRUST ESTATE  
 L 0011 \*OAHU SUGAR CO LTD  
 O 0011 \*GTE HAWAIIAN TELEPHONE CO  
 01/10/91-JT: CREATED FOR EXEMPTION PURPOSE ONLY

FOR ASSESSMENT YEAR 1995  
 -PITT: 500 AREA: 25.60900 A VALUE: 490000 EXEMPT: 88396  
 -BLDG: 0001 CODE: 232 YB: 1990 VALUE: 355300 EXEMPT:  
 -BLDG: 0002 CODE: 234 YB: 1990 VALUE: 980600 EXEMPT: 980600  
 BLDG TOTALS--> VALUE: 1335900 EXEMPT:

FOR ASSESSMENT YEAR 1995  
 -PITT: 800 AREA: 8.18000 A VALUE: 531700 EXEMPT:  
 MAILING ADDRESS: \*JAMES CAMPBELL TRUST ESTATE  
 1001 KAMOKILA BLVD 96707  
 KAPOLEI, HI

12/30/93-----  
 INSTR-DESC: LUC MAP R/S TMB:M930000466  
 INST-DATE: 01/05/94  
 REC-DATE:

AREA: 33.78900 ACRE  
 FORMER ZONING: A  
 CHANGED TO: A & U

TMK: 1 9 1 016 009 0000

A: 25.609 AC  
 U: 8.18 AC  
 TOTAL AREA: 33.789 AC

SOURCE: LUC BDRY AMEND A87-613 6/17/93 F TC %-OWNER TITLE-DESC  
 OWNERSHIP: NAME  
 F 0011 \*JAMES CAMPBELL TRUST ESTATE A/LE  
 L 0011 \*OAHU SUGAR CO LTD  
 O 0011 \*GTE HAWAIIAN TELEPHONE CO  
 01/10/91-JT: CREATED FOR EXEMPTION PURPOSE ONLY

FOR ASSESSMENT YEAR 1994  
 -PITT: 500 AREA: 25.60900 A VALUE: 490000 EXEMPT: 88396  
 -BLDG: 0001 CODE: 232 YB: 1990 VALUE: 355600 EXEMPT: 974100  
 -BLDG: 0002 CODE: 234 YB: 1990 VALUE: 974100 EXEMPT: 974100  
 BLDG TOTALS--> VALUE: 1329700 EXEMPT:

FOR ASSESSMENT YEAR 1994  
 -PITT: 800 AREA: 8.18000 A VALUE: 531700 EXEMPT:

MAILING ADDRESS: JAMES CAMPBELL TR ESTATE  
 1001 KAMOKILA BLVD 96707  
 KAPOLEI, HI

10/08/87-----  
 INSTR-DESC: MAP R/S (MAP 403 LCAPP 1069) TMB:M870100064  
 INST-DATE: 01/26/88  
 REC-DATE:

AREA: 33.78900 ACRE  
 (9116-09)  
 DESIGNATION OF SEWER ESMT "1423" (0.400 AC) & "1424" (2.069 AC)  
 PER MAP 403 LCAPP 1069 F TC %-OWNER TITLE-DESC  
 OWNERSHIP: NAME  
 F 0011 \*JAMES CAMPBELL TRUST ESTATE A/LE  
 L 0011 \*OAHU SUGAR CO LTD  
 O 0011 \*GTE HAWAIIAN TELEPHONE CO  
 01/10/91-JT: CREATED FOR EXEMPTION PURPOSE ONLY

FOR ASSESSMENT YEAR 1993  
 -PITT: 500 AREA: 23.95500 A VALUE: 474800 EXEMPT: 85654  
 -BLDG: 0001 CODE: 232 YB: 1990 VALUE: 354800 EXEMPT: 967000  
 -BLDG: 0002 CODE: 234 YB: 1990 VALUE: 967000 EXEMPT: 967000  
 BLDG TOTALS--> VALUE: 1321800 EXEMPT:

FOR ASSESSMENT YEAR 1993  
 -PITT: 800 AREA: 9.83400 A VALUE: 577100 EXEMPT:

FOR ASSESSMENT YEAR 1992  
 -PITT: 500 AREA: 33.78900 A VALUE: 1051900 EXEMPT: 189763  
 -BLDG: 0001 CODE: 232 YB: 1990 VALUE: 354900 EXEMPT: 960000  
 -BLDG: 0002 CODE: 234 YB: 1990 VALUE: 960000 EXEMPT: 960000  
 BLDG TOTALS--> VALUE: 1314900 EXEMPT:

NOTE: APPEAL EXISTS FOR THIS YEAR  
 NOTE: AMENDED ASSESSMENT EXISTS FOR THIS YEAR  
 FOR ASSESSMENT YEAR 1992

TMK: 1 9 1 016 009 0000  
-PITT: 800 AREA:

VALUE:

EXEMPT:

NOTE: AMENDED ASSESSMENT EXISTS FOR THIS YEAR

FOR ASSESSMENT YEAR 1991					
-PITT: 500 AREA:	33.78900 A	VALUE:	1051900	EXEMPT:	189763
-BLDG: 0001 CODE: 232 YB: 1990		VALUE:	351700	EXEMPT:	
-BLDG: 0002 CODE: 234 YB: 1990		VALUE:	926900	EXEMPT:	926900
	BLDG TOTALS-->	VALUE:	1278600	EXEMPT:	926900

NOTE: APPEAL EXISTS FOR THIS YEAR  
NOTE: AMENDED ASSESSMENT EXISTS FOR THIS YEAR

FOR ASSESSMENT YEAR 1990					
-PITT: 500 AREA:	33.78900 A	VALUE:	542500	EXEMPT:	

FOR ASSESSMENT YEAR 1989					
-PITT: 400 AREA:	2.52800 A	VALUE:	192700	EXEMPT:	

NOTE: APPEAL EXISTS FOR THIS YEAR  
NOTE: AMENDED ASSESSMENT EXISTS FOR THIS YEAR

FOR ASSESSMENT YEAR 1989					
-PITT: 500 AREA:	31.26100 A	VALUE:	377900	EXEMPT:	

NOTE: APPEAL EXISTS FOR THIS YEAR  
NOTE: AMENDED ASSESSMENT EXISTS FOR THIS YEAR

FOR ASSESSMENT YEAR 1988					
-PITT: 520 AREA:	33.78900 A	VALUE:	463202	EXEMPT:	

MAILING ADDRESS: JAMES CAMPBELL TR ESTATE  
1001 KAMOKILA BLVD  
KAPOLEI, HI 96707

10/07/87-----	F TC	%-OWNER	TITLE-DESC
OWNERSHIP: NAME			
F 0011 *JAMES CAMPBELL TRUST ESTATE			A/LE
L 0011 *OAHU SUGAR CO LTD			

MAILING ADDRESS: JAMES CAMPBELL ESTATE  
828 FORT STREET  
HONOLULU HAW 96813

-----SEE PARCEL SHEETS FOR MORE INFORMATION-----

***Appendix C***  
***Request for Public Information***

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## REQUEST TO ACCESS A GOVERNMENT RECORD

DATE: September 13, 2004

TO: Hazard Evaluation & Emergency Response Office (Fax: 586-7537)

FROM: Ida K. Namur  
Environet, Inc.  
2850 Paa St, Suite 212  
Honolulu, HI 96819  
Tel: 833-2225  
Fax: 833-2231

Although you are not required to provide any personal information, you should provide enough information to allow the agency to contact you about this request. The processing of this request may be stopped if the agency is unable to contact you. Therefore, please provide any information that will allow the agency to contact you (name or alias, telephone or fax number, mailing address, e-mail address, etc.).

### I WOULD LIKE THE FOLLOWING GOVERNMENT RECORD

Describe the government record as specifically as possible so that it can be located. Try to provide a record name, subject matter, date, location, purpose, or name of persons to whom the record refers, or other information that could help the agency identify the record. A complete and accurate description of the government record you request will prevent delays in locating the record. Attach a second page if needed.

TMK 9-1-16:009

Please see previous page for more information

### I WOULD LIKE : (please check one or more of the options below)

- To inspect the government record.
- A copy of the government record: (Please check one of the options below.) See the back of this page for information about fees that you may be required to pay for agency services to process your record request.

Note: Copying and transmission charges may also apply to certain options.

- Pick up at agency (date and time):
- Mail
- Fax (toll free and only if available)
- Other, if available (please specify):
- If the agency maintains the records in a form other than paper, please advise in which format you would prefer to have the record.
  - Electronic
  - Audio
  - Other (please specify):

Check this box if you are attaching a request for waiver of fees in the public interest (see waiver information on back).

**SEE BACK FOR IMPORTANT INFORMATION**

### OFFICIAL USE ONLY:

\_\_\_\_\_  
Office Manager

\_\_\_\_\_  
Date



REQUEST FOR PUBLIC RECORDS


Date: September 13, 2004

To: State of Hawaii  
Department of Health  
Hazard Evaluation & Emergency Response Office  
919 Ala Moana Boulevard, Rm. 206  
Honolulu, Hawaii 96814

Phone: (808) 586-4304 Fax: (808) 586-7537

From:

Name of Requestor: Ida K. Namur

  
Signature

Company: Environet, Inc.

Address: 2850 Paa Street, Suite 212, Honolulu, HI 96819

Telephone: (808) 833-2225

Fax: (808) 833-2231

We are requesting a search for any past or pending environmental permits, licenses, citations, or other information pertaining to the sites described below.

SITE INFORMATION:

Tax Map Key No: 9-1-016-009

Address: Hawaiian Waters Adventure Park  
491 Farrington Highway  
Kapolei, HI 96707

Current Owner: n/a

Owner Address: n/a

Type of Property: Water Park

Other Information: n/a



Environet, Inc.

PRESERVING EARTH'S RESOURCES FOR THE FUTURE

**TELEPHONE MEMORANDUM**

**Project No.:** 404-010  
**Project:** Hawaiian Waters Adventure Park Phase I ESA

**Call Made By:** Zena, DOH HEER office  
**Call Made To:** Ida K. Namur, EI  
**Date:** September 15, 2004  
**Time:** 12:00 PM

**Re:** Request for Public Information

---

**Conversation:**

Zena from DOH HEER office called Ms. Namur in response to a letter inquiring about available public records for the Hawaiian Waters Adventure Park property in Kapolei. Zena informed EI that there were no available records for the Property.

Recorded by: I.K.N.



Environet, Inc.

PRESERVING EARTH'S RESOURCES FOR THE FUTURE

September 13, 2004

Honolulu Fire Department  
Fire Communications Center  
650 South King Street  
Honolulu, HI 96813

Attention: Sheryl Nakama

Subject: Request for Records on Reported Hazardous Material Spill Events

Dear Ms. Nakama:

Environet, Inc., (EI) is engaged in a hazardous site assessment project for a property located in Kapolei, Oahu, Hawaii, with the address 491 Farrington Hwy, Kapolei, HI 96707 and with the TMK number 9-1-016-009. This property is also known as the Hawaiian Waters Adventure Park.

The site assessment includes the identification of facilities on the site or adjacent to it which use or generate hazardous substances on their premises. It is our understanding that the Honolulu Fire Department has maintained files containing such information. We would be interested in any information regarding unauthorized hazardous material spills/releases, violations (including safety violations), or aboveground tank registrations for any facility located at or within a ¼ mile radius of the subject property. If no such records exist, a negative response would be appreciated. The information will be used in a Phase I – Environmental Site Assessment. It would be greatly appreciated if you could respond as soon as possible.

Should you have further questions, please do not hesitate to contact me at 833-2225 (office) or 864-3971 (cell).

Sincerely:  
ENVIRONET, Inc.

Ida K. Namur  
Environmental Scientist

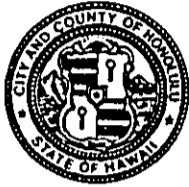
Environet, Inc.  
2850 Paa St., Suite 212  
Honolulu, HI 96819  
P: 808-833-2225  
F: 808-833-2231

FIRE DEPARTMENT  
**CITY AND COUNTY OF HONOLULU**

3375 KOAPAKA STREET, SUITE H425 • HONOLULU, HAWAII 96819-1869  
TELEPHONE: (808) 831-7761 • FAX: (808) 831-7750 • INTERNET: www.co.honolulu.hi.us

SEP 25 2004

JEREMY HARRIS  
MAYOR



ATTILIO K. LEONARDI  
FIRE CHIEF

JOHN CLARK  
DEPUTY FIRE CHIEF

September 23, 2004

Ms. Ida Namur  
Environet, Inc.  
2850 Paa Street, Suite 212  
Honolulu, Hawaii 96819

Dear Ms. Namur:

Subject: Hazardous Materials Incidents

A survey of our records on hazardous materials incidents has disclosed the following incidents occurred within a one-quarter mile radius of 91-491 Farrington Highway, Kapolei, Hawaii 96707:

<u>DATE</u>	<u>INCIDENT</u>	<u>ADDRESS</u>
01/14/93	473	Farrington Highway
01/29/96	1271	91-590 Farrington Highway
01/03/00	277	91-590 Farrington Highway
04/14/00	7172	91-590 Farrington Highway
02/03/03	3764	1000 Uluohia Street
02/06/04	4406	1000 Uluohia Street
02/26/04	6642	1000 Uluohia Street
03/03/04	7321	900 Kamokila Boulevard
03/23/04	9519	1000 Uluohia Street

Should you have any questions or need a copy of a fire report, please call Sheryl Nakama of our Fire Communication Center at 523-4854.

Sincerely,

Handwritten signature of Attilio K. Leonardi in black ink.

ATTILIO K. LEONARDI  
Fire Chief

AKL/EKS:sn



Environet, Inc.

PRESERVING EARTH'S RESOURCES FOR THE FUTURE

---

September 13, 2004

Honolulu Local Emergency Planning Committee  
CO-Oahu Civil Defense  
650 South King Street  
Honolulu, HI 96813

Attention: Mr. Leland Nakai

Subject: Request for Tier 2 Reports

Dear Mr. Nakai:

Environet, Inc., (EI) is engaged in a hazardous site assessment project for a property located in Kapolei, Oahu, Hawaii, with the address 491 Farrington Hwy, Kapolei, HI 96707 and with the TMK number 9-1-016-009. This property is also known as the Hawaiian Waters Adventure Park.

The site assessment includes the identification of facilities on the site or adjacent to it which store, use, or generate hazardous materials/substances on their premises. It is our understanding that the Honolulu Local Emergency Planning Committee (LEPC) has maintained Tier 2 Reports under the Superfund Amendments and Reauthorization Act (SARA) Title III containing such information. We would be interested in receiving Tier 2 Reports for any such property or facility. The information will be used in a Phase I – Environmental Site Assessment.

Should you have further questions, please do not hesitate to contact me at 833-2225 (office) or at 864-3971 (cell).

Sincerely:  
ENVIRONET, Inc.

Ida K. Namur  
Environmental Scientist

HONOLULU LOCAL EMERGENCY PLANNING COMMITTEE  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET • HONOLULU, HAWAII 96813  
PHONE: (808) 523-4121 • FAX: (808) 524-3439

SEP 14 2004

JEREMY HARRIS  
MAYOR



CHAIR  
CARTER DAVIS  
COORDINATOR  
LELAND NAKAI

September 13, 2004

Ms. Ida Namur  
Environmental Scientist  
Environet, Inc.  
2850 Paa Street, Suite 212  
Honolulu, Hawaii 96819

Dear Ms. Namur:

A search of Honolulu LEPC records was done in response to your request of September 13, 2004 for information concerning the Hawaiian Waters Adventure Park. The Honolulu LEPC does not have records for that property on file.

Attached is a copy of a report submitted by Verizon for its Kapolei Earth Station site which is adjacent to the property of interest.

Please contact me at 527-5397 if I can be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Leland Nakai", is written over a faint, larger version of the signature.

Leland Nakai  
Coordinator, Honolulu LEPC

Attachment



**APPENDIX C**



**Pre-Assessment Consultation Letters**



REPLY TO  
ATTENTION OF

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

October 14, 2004

Regulatory Branch

Colette Sakoda  
Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, HI 96816

Subject: Pre-Assessment consultation for the Hawaiian Waters Adventure Park Master Plan Update, Kapolei, Ewa District, Island of Oahu, Hawaii (TMK: 9-1-16:009)

Dear Ms. Sakoda:

In response to your letter dated September 15, 2004 soliciting comments on behalf of Hawaiian Waters Adventure Park (HWAP) for the above-referenced proposal, this office has determined that additional information would be necessary to determine if any activities associated with the park re-design would be subject to regulation under the authority of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act.

Because of the location of the park approximately 2 ½ miles from the Pacific Ocean and based on a review of the United States Geological Service (USGS) topographic map of the Ewa area, the proposed changes would likely not be regulated under Section 10 of the Rivers and Harbors Act. Section 404 of the Clean Water Act regulates the discharge of dredged/fill material into waters of the United States (US). In order for this office to provide substantive comments, information regarding the presence or absence of streams (intermittent or perennial), ditches, gulches, wetlands or other features that may fall under the definition of waters of the US, as defined in 33 CFR Part 328, would be necessary. Further, the type of activity that may affect a regulated water within the site would also need to be described.

Thank you for your cooperation with our regulatory program. If you need further assistance, please contact Ms. Connie Ramsey by phone at 808-438-2039, by facsimile at 808-438-4060, or by electronic mail at [Connie.L.Ramsey@usace.army.mil](mailto:Connie.L.Ramsey@usace.army.mil). Please refer to File Number 200400508 for further inquiries regarding this project.

Sincerely,

George P. Young, P.E.  
Chief, Regulatory Branch

LINDA LINGLE  
GOVERNOR



PATRICIA HAMAMOTO  
SUPERINTENDENT

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

OFFICE OF THE SUPERINTENDENT

October 11, 2004

Ms. Colette Sakoda  
Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

Dear Ms. Sakoda:

SUBJECT: Pre-Assessment Consultation, Hawaiian Waters Adventure Park  
Master Plan Update, Kapolei, Ewa, Oahu TMK: 9-1-16:9

The Department of Education has no comment or concern about the proposed expansion and change in zoning of the Hawaiian Waters Adventure Park.

If you have any questions, please call Rae Loui, Assistant Superintendent of the Office of Business Services, at 586-3444 or Heidi Meeker of the Facilities and Support Services Branch at 733-4862.

Very truly yours,

A handwritten signature in cursive script that reads "Patricia Hamamoto".

Patricia Hamamoto  
Superintendent

PH:jl

c: Rae Loui, Assistant Superintendent, OBS  
Mamo Carreira, CAS, Campbell/Kapolei/Waianae Complex Area

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

LINDA LINGLE  
GOVERNOR OF HAWAII



CHIYOME L. FUKINO, M.D.  
DIRECTOR OF HEALTH

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

In reply, please refer to:  
END / CWB

09062PKP.04

September 22, 2004

Ms. Colette Sakoda  
Environmental Planning  
Solutions, LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

Dear Ms. Sakoda:

**Subject: Hawaiian Waters Adventure Park Master Plan Update  
Kapolei, Ewa District, Island of Oahu  
Pre-Assessment Consultation**

The Department of Health (DOH), Clean Water Branch (CWB), has reviewed the subject document and offers the following comments:

1. The Army Corps of Engineers should be contacted at (808) 438-9258 to identify whether a Federal license or permit (including a Department of Army permit) is required for this project. Pursuant to Section 401(a)(1) of the Federal Water Pollution Control Act (commonly known as the "Clean Water Act"), a Section 401 Water Quality Certification is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters..."
2. A National Pollutant Discharge Elimination System (NPDES) general permit coverage is required for the following activities:
  - a. Storm water associated with industrial activities, as defined in Title 40, Code of Federal Regulations, Sections 122.26(b)(14)(i) through 122.26(b)(14)(ix) and 122.26(b)(14)(xi).
  - b. Construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. **An NPDES permit is required before the commencement of the construction activities.**
  - c. Discharges of treated effluent from leaking underground storage tank remedial activities.
  - d. Discharges of once through cooling water less than one (1) million gallons per day.
  - e. Discharges of hydrotesting water.

Ms. Colette Sakoda  
September 22, 2004  
Page 2

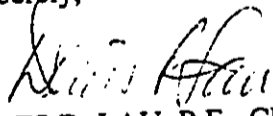
- f. Discharges of construction dewatering effluent.
- g. Discharges of treated effluent from petroleum bulk stations and terminals.
- h. Discharges of treated effluent from well drilling activities.
- i. Discharges of treated effluent from recycled water distribution systems.
- j. Discharges of storm water from a small municipal separate storm sewer system.
- k. Discharges of circulation water from decorative ponds or tanks.

The CWB requires that a Notice of Intent (NOI) to be covered by an NPDES general permit for any of the above activities be submitted at least 30 days before the commencement of the respective activities. The NOI forms may be picked up at our office or downloaded from our website at:  
<http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>

- 3. The applicant may be required to apply for an individual NPDES permit if there is any type of activity in which wastewater is discharged from the project into State waters and/or coverage of the discharge(s) under the NPDES general permit(s) is not permissible (i.e. NPDES general permits do not cover discharges into Class 1 or Class AA State waters). An application for the NPDES permit is to be submitted at least 180 days before the commencement of the respective activities. The NPDES application forms may also be picked up at our office or downloaded from our website at:  
<http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>
- 4. Hawaii Administrative Rules, Section 11-55-38, also requires the applicant to either submit a copy of the new NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the DOH that the project, activity, or site covered by the NOI or application has been or is being reviewed by SHPD.

If you have any questions, please contact Ms. Kris Poentis of the Engineering Section, CWB, at 586-4309.

Sincerely,

  
DENIS R. LAU, P.E., CHIEF  
Clean Water Branch

KP:np

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING, ROOM 555  
601 KAMOKILA BOULEVARD  
KAPOLEI, HAWAII 96707

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

HAWAII HISTORIC PRESERVATION  
DIVISION REVIEW

SEP 30 2004

Log #: 2004.  
Doc #:0409EJ26

Date Received: Sept 16, 2004

Applicant/Agency: Colette Sakoda  
Environmental Planning Solutions, LLC  
Address: 945 Makaiwa Street  
Honolulu, Hawaii 96816  
SUBJECT: Chapter 6E-42 Historic Preservation Review-Pre EA Consultation on  
the Hawaiian Waters Adventure Park Master Plan Update-  
Ahupua'a: Honouliuli  
District, Island: 'Ewa, O'ahu  
TMK: (1) 9-1-016:009

1.  This project has not gone through the historic preservation review process. Please submit documentation \_\_\_\_\_
  2.  This project has already gone through the historic preservation review process.
    - a. mitigation has been completed
    - b. other We provided comment in 1998 on the proposed Water Park. Our comments stated that no historic sites were known in the area and that they were unlikely because of past commercial cultivation of the land. Our comment on the current action, which includes expansion within the existing park boundaries, remains the same.
  3.  We have not been consulted on this undertaking, however we believe there are no historic properties present, because:
    - a) intensive cultivation has altered the land
    - b) residential development/urbanization has altered the land
    - c) previous grubbing/grading has altered the land
    - d) an acceptable archaeological assessment or inventory survey found no historic properties
    - e) other:
- Thus, we believe that "no historic properties will be affected" by this undertaking.

Aloha.

*P. Holly McEldowney*

P. Holly McEldowney, Administrator  
State Historic Preservation Division

EJ: sky

LINDA LINGLE  
GOVERNOR OF HAWAII

RECEIVED  
LAND DIVISION



2004 SEP 29 P 4: 09



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT

ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION

LAND  
STATE PARKS  
LD/NAV

September 24, 2004

45 HAWAIIANWATERSPARK.CMT

Suspense Date: 10/02/04

RUSH

MEMORANDUM:

TO: XXX Division of Aquatic Resources  
XXX Engineering Division  
XXX Division of State Parks  
XXX Division of Boating and Ocean Recreation  
XXX Commission on Water Resource Management  
XXX Office of Conservation and Coastal Lands  
XXX Land-Oahu District Land Office  
XXX Land-Planning and Development

FROM: Dierdre S. Mamiya, Administrator  
Land Division

SUBJECT: Pre-Assessment Consultation for Hawaiian Waters Adventure  
Park Master Plan Update, Kapolei, Ewa District, Island of  
Oahu, Hawaii - TMK: (1) 9-1-016: 009

Please review the attached application and exhibits pertaining to the subject matter and submit your comment (if any) on Division letterhead signed and dated by the suspense date.

Should you need more time to review the subject matter, please contact Nick Vaccaro at 587-0384. If this office does not receive your comments by the suspense date, we will assume there are no comments.

( ) We have no comments.

Comments attached.

Signed: [Signature]

Date: 9/29/04

Name: ERIC T. HIRANO, CHIEF ENGINEER

Division: Engineering

DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION

LA/NAV

Ref.: HAWAIIANWATERSPARK.CMT

COMMENTS

- ( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone \_\_\_\_.
- (X) Please take note that the project sites according to the Flood Insurance Rate Map (FIRM), are located in Zone D. The National Flood Insurance Program (NFIP) does not have any regulations for development within this area.
- ( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is \_\_\_\_.
- ( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

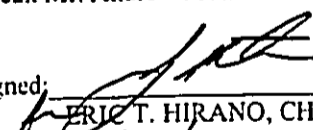
Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

- ( ) Mr. Robert Sumimoto at (808) 523-4254 or Mr. Mario Siu Li at (808) 523-4247 of the City and County of Honolulu, Department of Planning and Permitting.
  - ( ) Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emler at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.
  - ( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
  - ( ) Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.
- ( ) The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.
  - ( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments: \_\_\_\_\_

( ) Other: \_\_\_\_\_

Should you have any questions, please call Mr. Andrew Monden of the Planning Branch at 587-0229.

Signed:   
ERIC T. HIRANO, CHIEF ENGINEER  
Date: 9/29/04



LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

YVONNE Y. ZU  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

October 8, 2004  
LD-NAV  
HAWAIIANWATERPARK.RCM

Environmental Planning Solutions, LLC  
Colette Sakoda  
945 Makaiwa Street  
Honolulu, Hawaii 96816

Dear Ms. Sakoda:

SUBJECT: Pre-Assessment Consultation for Hawaiian Waters Adventure Park  
Master Plan Update, Kapolei, Ewa District, Island of Oahu,  
Hawaii - TMK: (1) 9-1-016: 009

Thank you for the opportunity to review and comment on the subject matter.

The Department of Land and Natural Resources' Land Division transmitted a copy of your letter dated September 15, 2004 pertaining to the subject matter to the following Department of Land and Natural Resources' Divisions for their review and comment:

- Division of Aquatic Resources
- Division of Forestry and Wildlife
- Division of State Parks
- Commission on Water Resource Management
- Engineering Division Planning
- Office of Conservation and Coastal Lands
- Land-Oahu District Land Office
- Land-Planning and Development

Enclosed please find a copy of the Engineering Division and Commission on Water Resource Management comment.

Based on the attached responses, the Department of Land and Natural Resources has no other comment to offer at this time.

Should you have any questions, please feel free to contact Nick Vaccaro of the Land Division Support Services Branch at (808) 587-0384.

Very truly yours,

A handwritten signature in black ink, appearing to read "Dierdrie S. Mamiya".

DIERDRIE S. MAMIYA  
Administrator

C: ODLO

LINDA LINGLE  
GOVERNOR OF HAWAII

RECEIVED  
LAND DIVISION



2004 SEP 28 P 3:47



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
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HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND

STATE PARKS  
LD/NAV

September 24, 2004  
HAWAIIANWATERSPARK.CMT

Suspense Date: 10/02/04

RUSH

MEMORANDUM:

TO: XXX Division of Aquatic Resources  
XXX Engineering Division  
XXX Division of State Parks  
XXX Division of Boating and Ocean Recreation  
XXX Commission on Water Resource Management  
XXX Office of Conservation and Coastal Lands  
XXX Land-Oahu District Land Office  
XXX Land-Planning and Development

FROM: Dierdre S. Mamiya, Administrator  
Land Division

SUBJECT: Pre-Assessment Consultation for Hawaiian Waters Adventure  
Park Master Plan Update, Kapolei, Ewa District, Island of  
Oahu, Hawaii - TMK: (1) 9-1-016: 009

Please review the attached application and exhibits pertaining to the subject matter and submit your comment (if any) on Division letterhead signed and dated by the suspense date.

Should you need more time to review the subject matter, please contact Nick Vaccaro at 587-0384. If this office does not receive your comments by the suspense date, we will assume there are no comments.

We have no comments.

Comments attached.

Signed: Cecil Santos

Date: 9/28/04

Name: CECIL SANTOS  
LD

Division: DLNR (LAND DIVISION)

LINDA LINGLE  
GOVERNOR OF HAWAII



RECEIVED  
DIVISION

28 P 3:58



SEP 27 P 4:19

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT

ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION

LAND  
STATE PARKS  
LD/NAV

September 24, 2004  
HAWAIIANWATERSPARK.CMT

Suspense Date: 10/02/04

RUSH

MEMORANDUM:

FROM TO: XXX Division of Aquatic Resources  
XXX Engineering Division  
XXX Division of State Parks  
XXX Division of Boating and Ocean Recreation  
XXX Commission on Water Resource Management  
XXX Office of Conservation and Coastal Lands  
XXX Land-Oahu District Land Office  
XXX Land-Planning and Development

TO: FROM: Dierdre S. Mamiya, Administrator  
Land Division

SUBJECT: Pre-Assessment Consultation for Hawaiian Waters Adventure  
Park Master Plan Update, Kapolei, Ewa District, Island of  
Oahu, Hawaii - TMK: (1) 9-1-016: 009

Please review the attached application and exhibits pertaining  
to the subject matter and submit your comment (if any) on Division  
letterhead signed and dated by the suspense date.

Should you need more time to review the subject matter, please  
contact Nick Vaccaro at 587-0384. If this office does not receive  
your comments by the suspense date, we will assume there are no  
comments.

( ) We have no comments.

(x) Comments attached.

Signed: [Signature]

Date: SEP 28 2004

Name: Dean Nakano

Division: Commission on Water  
Resource Management

LINDA LINGLE  
GOVERNOR OF HAWAII



PETER T. YOUNG  
CHAIRPERSON

MEREDITH J. CHING  
CLAYTON W. DELA CRUZ  
JAMES A. FRAZIER  
CHIYOME L. FUKINO, M.D.  
LAWRENCE H. MIKE, M.D., J.D.  
STEPHANIE A. WHALEN

YVONNE Y. IZU  
DEPUTY DIRECTOR

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
P.O. BOX 621  
HONOLULU, HAWAII 96809

SEP 28 2004

TO: Ms. Dede Mamiya, Administrator  
Land Division

FROM: Yvonne Y. Izu, Deputy Director  
Commission on Water Resource Management (CWRM)

SUBJECT: Pre-Assessment Consultation for Hawaiian Waters Adventure Park Master Plan Update  
Kapolei, Ewa District, Island of Oahu, Hawaii – TMK: (1) 9-1-016:009

FILE NO.: HAWAIIANWATERSPARK.CMT

Thank you for the opportunity to review the subject document. Our comments related to water resources are marked below.

In general, the CWRM strongly promotes the efficient use of our water resources through conservation measures and use of alternative non-potable water resources whenever available, feasible, and there are no harmful effects to the ecosystem. Also, the CWRM encourages the protection of water recharge areas, which are important for the maintenance of streams and the replenishment of aquifers.

- We recommend coordination with the county government to incorporate this project into the county's Water Use and Development Plan.
- We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- We are concerned about the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.
- A Well Construction Permit and/or a Pump Installation Permit from the Commission would be required before ground water is developed as a source of supply for the project.
- The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit from the Commission would be required prior to use of this source.
- Groundwater withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- We are concerned about the potential for degradation of instream uses from development on highly erodible slopes adjacent to streams within or near the project. We recommend that approvals for this project be conditioned upon a review by the corresponding county's Building Department and the developer's acceptance of any resulting requirements related to erosion control.
- If the proposed project includes construction of a stream diversion, the project may require a stream diversion works permit and amend the instream flow standard for the affected stream(s).
- If the proposed project alters the bed and banks of a stream channel, the project may require a stream channel alteration permit.
- OTHER:

If there are any questions, please contact Dean Nakano at 587-0240.

LINDA LINGLE  
GOVERNOR OF HAWAII

DIVISION OF AQUATIC RESOURCES	
DIRECTOR	Suspense Date:
COM FISHERIES	Draft Reply <input type="checkbox"/>
AC/REG/ENV	Reply Direct <input type="checkbox"/>
AQ/REG/IN	Comments <input type="checkbox"/>
ST&P SVCS	Information <input type="checkbox"/>
FISH DEV	Comp Act & File <input type="checkbox"/>
STATISTICS	Return to:
AFRC	Comes in:
EDUCATION	
SECRETARY	
OFFICE SVCS	



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LAND DIVISION

2004 OCT -4 P 3:48

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU  
DEPUTY DIRECTOR - WATER



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAOLOAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

LD/NAV

September 24, 2004  
HAWAIIANWATERSPARK.CMT

Suspense Date: 10/02/04

**RUSH**

MEMORANDUM:



TO: XXX Division of Aquatic Resources  
XXX Engineering Division  
XXX Division of State Parks  
XXX Division of Boating and Ocean Recreation  
XXX Commission on Water Resource Management  
XXX Office of Conservation and Coastal Lands  
XXX Land-Oahu District Land Office  
XXX Land-Planning and Development

FROM: Dierdre S. Mamiya, Administrator  
Land Division

SUBJECT: Pre-Assessment Consultation for Hawaiian Waters Adventure  
Park Master Plan Update, Kapolei, Ewa District, Island of  
Oahu, Hawaii - TMK: (1) 9-1-016: 009

Please review the attached application and exhibits pertaining  
to the subject matter and submit your comment (if any) on Division  
letterhead signed and dated by the suspense date.

Should you need more time to review the subject matter, please  
contact Nick Vaccaro at 587-0384. If this office does not receive  
your comments by the suspense date, we will assume there are no  
comments.

We have no comments.

Comments attached.

Signed: Francis Oishi

Date: 10/1/04

Name: Francis Oishi

Division: Aquatic Resources

LINDA LINGLE  
GOVERNOR OF HAWAII

RECEIVED  
STATE PARKS DIV



'04 SEP 28 18 58



DEPT OF LAND &  
NATURAL RESOURCES

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

September 24, 2004  
HAWAIIANWATERSPARK.CMT

ADMINISTRATOR  
ASST ADMIN  
REG BR  
PLANN BR  
SUS MGT BR  
LIBRICAL  
ADMIN ASST  
INTERP BR

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
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HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS  
LD/NAV

Suspense Date: 10/02/04

**RUSH**

MEMORANDUM:

TO: XXX Division of Aquatic Resources  
 XXX Engineering Division  
 XXX Division of State Parks  
 XXX Division of Boating and Ocean Recreation  
 XXX Commission on Water Resource Management  
 XXX Office of Conservation and Coastal Lands  
 XXX Land-Oahu District Land Office  
 XXX Land-Planning and Development

FROM: Dierdre S. Mamiya, Administrator  
 Land Division

SUBJECT: Pre-Assessment Consultation for Hawaiian Waters Adventure  
 Park Master Plan Update, Kapolei, Ewa District, Island of  
 Oahu, Hawaii - TMK: (1) 9-1-016: 009

Please review the attached application and exhibits pertaining to the subject matter and submit your comment (if any) on Division letterhead signed and dated by the suspense date.

Should you need more time to review the subject matter, please contact Nick Vaccaro at 587-0384. If this office does not receive your comments by the suspense date, we will assume there are no comments.

We have no comments.

Comments attached.

Signed: Daniel S. Quinn

Date: 9/29/04

Name: Daniel S. Quinn

Division: State Parks

2004 OCT - 4 A 10: 10

RECEIVED  
LAND DIVISION

LINDA LINGLE  
GOVERNOR



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

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

STP 8.1459

December 29, 2004

Ms. Colette Sakoda  
Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

Dear Ms. Sakoda:

Subject: Hawaiian Waters Adventure Park Master Plan Update

Thank you for requesting our comments on your proposal to update the subject master plan:

Our comments are as follows:

1. The applicant has not installed onsite drainage improvements as required by the construction permit with our Highways Division for roadway improvements fronting the park. The applicant will need to discuss and resolve this issue with our Highways Division.
2. The applicant was issued a citation for unpermitted drain line connection. The applicant must comply with the National Pollutant Discharge Elimination System (NPDES) permit requirements. This shall include obtaining a NPDES permit from the Department of Health or a negative letter of determination.
3. The applicant should address traffic impacts and mitigation measures attributable to the current park operations as well as the planned expansion. In doing this, the applicant must evaluate and assess the cumulative impact of various new and proposed developments in the area and address at a minimum, the following:
  - a. Identification of project generated traffic impacts on Farrington Highway and the Palailai Interchange and the recommended improvements to mitigate these impacts.
  - b. The need for right-of-way for the widening of Farrington Highway fronting the subject project.
  - c. The need for a traffic signal at the adjacent parcel 2 driveway connection to the Farrington Highway intersection with the water park driveway.

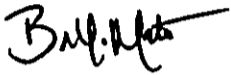
STP 8.1459

Ms. Colette Sakoda  
Page 2  
December 29, 2004

The applicant will be responsible to implement at their cost all recommended improvements.

We appreciate the opportunity to provide comments.

Very truly yours,



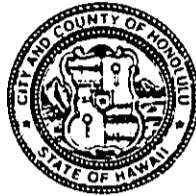
**& RODNEY K. HARAGA**  
Director of Transportation



DEPARTMENT OF PARKS AND RECREATION  
**CITY AND COUNTY OF HONOLULU**

1000 ULUOHIA STREET, SUITE 309 • KAPOLEI, HAWAII 96707  
TELEPHONE (808) 692-5561 • FAX (808) 692-5131 • INTERNET [www.cc.honolulu.hi.us](http://www.cc.honolulu.hi.us)

JEREMY HARRIS  
MAYOR



WILLIAM D. BALFOUR, JR.  
DIRECTOR

EDWARD T. "SKIPPA" DIAZ  
DEPUTY DIRECTOR

September 23, 2004

Ms. Colette Sakoda  
Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

Dear Ms. Sakoda:

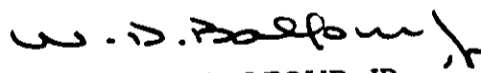
Subject: Pre-Assessment Consultation Hawaiian Waters Adventure  
Park Master Plan Update Kapolei, Ewa District, Island of Oahu  
TMK No. 9-1-16:009

Thank you for the opportunity to review and comment on the Pre-Assessment  
Consultation relating to the Master Plan Update for Hawaiian Waters Adventure Park.

The Department of Parks and Recreation has no comment at this time.

Should you have any questions, please contact Mr. John Reid, Planner, at  
692-5454.

Sincerely,

  
WILLIAM D., BALFOUR, JR.  
Director

WDB:mk  
(77002)

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](http://www.honolulu.gov)

JEREMY HARRIS  
MAYOR



BOISSE P. CORREA  
CHIEF

GLEN R. KAJIYAMA  
PAUL D. PUTZULU  
DEPUTY CHIEFS

OUR REFERENCE CS-LKA

October 7, 2004

Ms. Colette Sakoda  
Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

Dear Ms. Sakoda:

Thank you for the opportunity to comment on the Hawaiian Waters Adventure Park Master Plan Update.

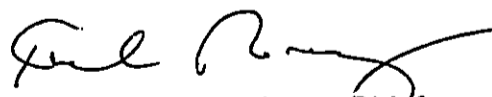
Officers of the Honolulu Police Department's (HPD) Kapolei Police Station, located at 1100 Kamokila Boulevard, service this area.

We have no further comment at this time relative to the impact that this project may have on the services and facilities of the HPD. However, we may want to comment when specific expansion plans become known.

Should you have any questions, please call Major Terence Yuen of District 8 at 692-4253 or Ms. Carol Sodehani of the Support Services Bureau at 529-3658.

Sincerely,

BOISSE P. CORREA  
Chief of Police

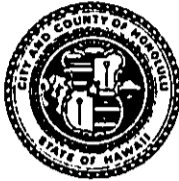
By   
KARL GODSEY, Assistant Chief  
Support Services Bureau

*Serving and Protecting with Aloha*

DEPARTMENT OF TRANSPORTATION SERVICES  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET, 3RD FLOOR  
HONOLULU, HAWAII 96813  
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS  
MAYOR



GEORGE "KEOKI" MIYAMOTO  
ACTING DIRECTOR

ROBERT J. FISHMAN  
DEPUTY DIRECTOR

TP9/04-76995R

October 6, 2004

Ms. Colette Sakoda  
Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

Dear Ms. Sakoda:

Subject: Hawaiian Waters Adventure Park Master Plan Update

In response to your September 15, 2004 letter, we have reviewed the information provided regarding the subject project and have the following comments for your consideration:

1. The jurisdiction of Farrington Highway along the Hawaiian Waters Adventure Park frontage needs to be defined.
2. A traffic impact study should be conducted for this project. The study should discuss the potential impacts on the surrounding roadways in the area. In addition, it should address transit and pedestrian impacts.
3. The State Department of Transportation should also be consulted regarding this project.

We look forward to reviewing the draft environmental assessment. Should you have any questions regarding these comments, please contact Faith Miyamoto of the Transportation Planning Division at 527-6976.

Sincerely,

A handwritten signature in black ink, appearing to read "George Miyamoto".

GEORGE "KEOKI" MIYAMOTO  
Acting Director

FIRE DEPARTMENT  
**CITY AND COUNTY OF HONOLULU**

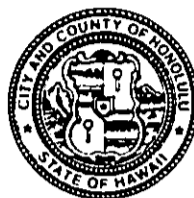
3375 KOAPAKA STREET, SUITE H425 • HONOLULU HAWAII 96819-1869  
TELEPHONE (808) 831-7761 • FAX (808) 831-7750 • INTERNET www.honolulufire.org



ATTILIO K. LEONARDI  
FIRE CHIEF

JOHN CLARK  
DEPUTY FIRE CHIEF

JEREMY HARRIS  
MAYOR



September 27, 2004

Ms. Colette Sakoda  
Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

Dear Ms. Sakoda:

Subject: Pre-assessment Consultation  
Hawaiian Waters Adventure Park Master Plan Update  
Kapolei, Oahu, Hawaii  
Tax Map Key: 9-1-016: 009

We received your letter dated September 15, 2004, requesting our comments on the above-mentioned project.

The Honolulu Fire Department has no objections to the proposed update of the Master Plan and the permanent zone change from Agriculture (AG-2) to Community Business (B-2), provided the following are complied with:

1. Provide a fire apparatus access road for every facility, building, or portion of a building hereafter constructed or moved into or within the jurisdiction when any portion of the facility or any portion of an exterior wall of the first story of the building is located more than 150 feet (45 720 mm) from fire apparatus access as measured by an approved route around the exterior of the building or facility. (1997 Uniform Fire Code, Section 902.2.1)
2. Provide a water supply, approved by the county, capable of supplying the required fire flow for fire protection to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed, or moved into or within the county.

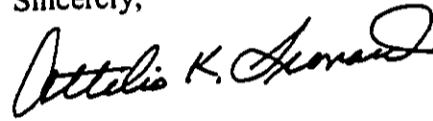
Ms. Colette Sakoda  
Page 2  
September 27, 2004

On-site fire hydrants and mains capable of supplying the required fire flow shall be provided when any portion of the facility or building is in excess of the 150 feet (45 720 mm) from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building. (1997 Uniform Fire Code, Section 903.2 as amended)

3. Provide civil drawings for review and approval by the HFD.

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

**BOARD OF WATER SUPPLY**

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



October 5, 2004

JEREMY HARRIS, Mayor

EDDIE FLORES, JR., Chairman  
CHARLES A. STED, Vice-Chairman  
HERBERT S. K. KAOPUA, SR.  
DAROLYN H. LENDIO

RODNEY K. HARAGA, Ex-Officio  
LARRY J. LEOPARDI, Ex-Officio

CLIFFORD S. JAMILE  
Manager and Chief Engineer

DONNA FAY K. KIYOSAKI  
Deputy Manager and Chief Engineer

Ms. Colette Sakoda  
Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

Dear Ms. Sakoda:

Subject: Your Letter of September 15, 2004 on the Hawaiian  
Waters Adventure Park Master Plan Update in Kapolei,  
TMK: 9-1-16: 9

Thank you for the opportunity to comment on the proposed Hawaiian Water Adventure Park expansion.

The existing Hawaiian Water Adventure Park is using approximately 126,000 gallons of water per day (gpd). The current water allocation is 75,000 gpd. The developer is required to obtain additional water allocation for this shortfall, in addition to the new proposed water requirements, from Campbell Estate.

The availability of water will be confirmed when the Building Permit is submitted for approval.

The proposed project is subject to Board of Water Supply Cross-Connection Control and Backflow Prevention requirements prior to the issuance of the Building Permit applications.

If you have any questions, please contact Joseph Kaakua at 748-5442.

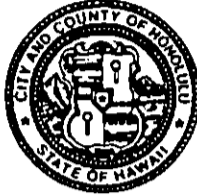
Very truly yours,

KEITH S. SHIDA  
Principal Executive  
Customer Care Division

DEPARTMENT OF PLANNING AND PERMITTING  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET, 7<sup>TH</sup> FLOOR • HONOLULU, HAWAII 96813  
PHONE: (808) 523-4414 • FAX: (808) 527-6743  
DEPT. WEB SITE: [www.honolulu.gov](http://www.honolulu.gov) • CITY WEB SITE: [www.honolulu.gov](http://www.honolulu.gov)

JEREMY HARRIS  
MAYOR



ERIC G. CRISPIN, AIA  
DIRECTOR

BARBARA KIM STANTON  
DEPUTY DIRECTOR

2004/ELOG-2309

November 18, 2004

Ms. Colette Sakoda  
Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

Dear Ms. Sakoda:

Hawaiian Waters Adventure Park Master Plan Update  
Kapolei, Ewa District, Island of Oahu  
TMK: 9-1-16:009, Pre-Assessment Consultation

The Department of Planning and Permitting offers the following comments regarding the preparation of a Chapter 343 HRS Environmental Assessment (EA) for the Hawaiian Waters Adventure Park updated Master Plan and zone change.

The Map that accompanied the September 15, 2004, Pre-Assessment Consultation notice is out of date. The parcel specific Development Plan Land Use Maps were eliminated with the adoption of the August 1997 Ewa Development Plan.

The EA needs to discuss the consistency of the proposed Master Plan update with the City's General Plan, Ewa Development Plan; and "Smart Growth" concepts being discussed as part of the Ewa Development Plan Five Year Review.

The EA should also discuss the likely impacts on employment, agriculture and open space, and traffic.

If you have questions regarding our comments, please contact Robert Reed of our staff at 523-4402.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Eric G. Crispin".

ERIC G. CRISPIN, AIA  
Director of Planning and Permitting

EGC:mo  
333478

GAS

P.O. Box 3000  
Honolulu, Hawaii 96802-3000

September 29, 2004

Ms. Colette Sakoda  
Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

Dear Ms. Sakoda:

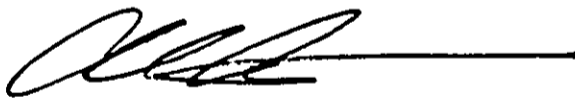
Subject: Draft Environmental Assessment for  
Hawaiian Waters Adventure Park Master Plan Update

Please be advised that The Gas Company, LLC, maintains underground utility gas mains in the project vicinity, which serves commercial and residential customers in the area and is interconnected with the utility network in Kapolei. We would appreciate your consideration during the project planning and design process to minimize any potential conflicts with the existing gas facilities in the project area.

Thank you for the opportunity to comment on the Draft Environmental Assessment. Should there be any questions, or if additional information is desired, please call Chris Anderson at 594-5564.

Sincerely,

The Gas Company, LLC



Charles E. Calvet, P.E.  
Manager, Engineering

CEC:krs  
04-251



200 Akamama Street  
Muhilo, Hawaii 96756-3909  
Tel 808-625-2100  
Fax 808-625-5888



October 1, 2004

Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

Attn: Ms. Colette Sakoda

**Subject: Hawaiian Waters Adventure Park Master Plan Update  
Kapolei, Ewa District, Island of Oahu**

Dear Ms. Sakoda,

Oceanic Time Warner Cable has no facilities within the water park's boundaries. The only facilities Oceanic has in the area runs along Old Farrington Highway on the aerial pole lead.

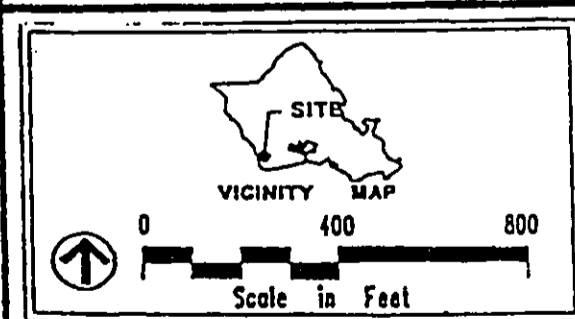
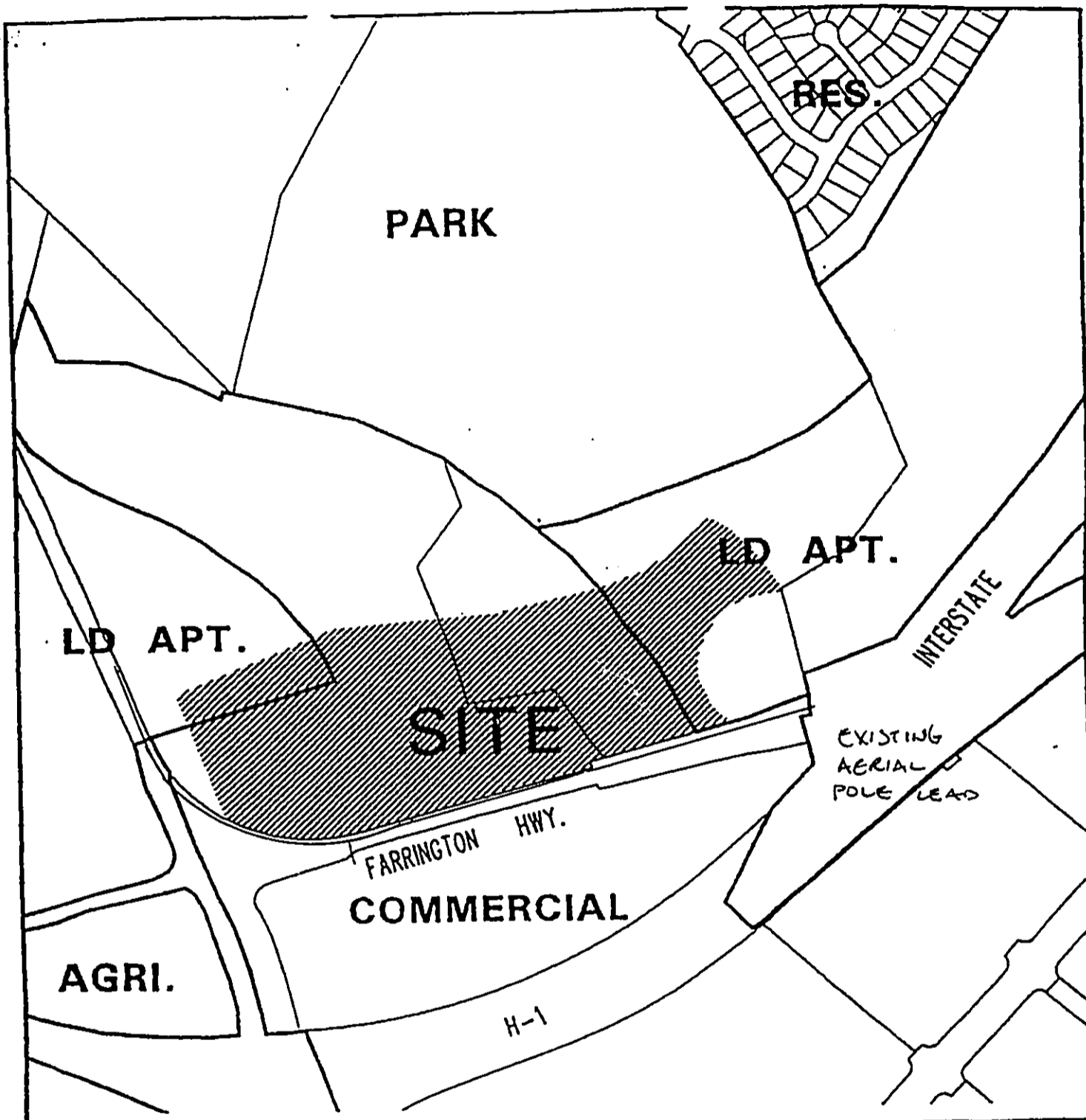
If you have any questions or require more information, please call me at 625-8458.

Sincerely,

A handwritten signature in black ink, appearing to read "Darryl Osato".

Darryl Osato  
OSP Engineer

Enclosures (1)



**PORTION OF DEVELOPMENT PLAN  
 LAND USE MAP  
 EWA**  
 TAX MAP KEY: 9-1-16: Por. 6 FOLDER NO.: 93/CUP1-35  
 & Por. 9

Prepared By: Department of Land Utilization  
 City and County of Honolulu  
 Date Prepared: October 1993

**EXHIBIT**



Verizon Hawaii Inc.  
P.O. Box 2200  
Honolulu, HI 96841

September 30, 2004

Reply to  
HIABY3

Ms. Colette Sakoda  
Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, HI 96816

Dear Ms. Sakoda:

**Subject: Hawaiian Waters Adventure Park Master Plan Update**

Thank you for the opportunity to comment on the **Hawaiian Waters Adventure Park Master Plan** project. We have no comments to add to your document at this time.

If you have any questions or require assistance in the future, please call me at 840-1447.

Sincerely,

A handwritten signature in cursive script that reads "Paul K. Hanohano".

Paul Hanohano  
OSP Engineering





REGALY TO  
ATTENTION OF  
Regulatory Branch

DEPARTMENT OF THE ARMY  
U. S. ARMY ENGINEER DISTRICT, HONOLULU  
FT. SHAFTER, HAWAII 96816

May 5, 2005

Hawaiian Waters Adventure Park  
c/o Jerry Pupillo  
400 Farrington Highway  
Kapolei, HI 96707

Subject: Comments on the draft Environmental Assessment (EA) for the Hawaiian Waters Adventure Park Master Plan Update, Kapolei, Ewa District, Island of Oahu, Hawaii (TMK: 9-1-16:009)

Dear Mr. Pupillo:

This office has reviewed the draft EA for the Hawaiian Waters Adventure Park Master Plan Update pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (CWA). We previously provided comments on October 14, 2004 for the project during the pre-consultation phase of the EA process, stating that additional information would be necessary in order to make a determination of jurisdiction.

Based on our review of the information provided with the draft EA and of available aerial photographs, we have determined that the proposed park improvements do not appear to involve the placement of dredged and/or fill material into waters of the U.S. under our regulatory jurisdiction under Section 404, nor would these proposals involve activities subject to the requirements of Section 10. Therefore, a DA permit will not be required for the work proposed in this draft EA.

If you need further assistance, please contact Ms. Connie Ramsey by phone at 438-2039, by facsimile at 438-4060, or by electronic mail at [Connie.L.Ramsey@usace.army.mil](mailto:Connie.L.Ramsey@usace.army.mil). Please refer to file number POH-2005-284 (formerly #200400508) for further inquiries regarding this project. Thank you for your cooperation with our regulatory program.

Sincerely,

George P. Young, P.E.  
Chief, Regulatory Branch

Copy furnished:  
Colette Sakoda, Environmental Planning Solutions LLC, 945 Makaiwa St., Honolulu, HI 96816  
Tim Hata, Dept. of Planning & Permitting, 650 South King St., 7<sup>th</sup> Floor, Honolulu, HI 96813

ENVIRONMENTAL PLANNING SOLUTIONS, LLC  
945 Makaiwa Street, Honolulu, HI 96816

Phone: 732-8602 Fax 538-3188

June 27, 2005

Mr. George P. Young, Chief  
Regulatory Branch  
U.S. Army Engineer District, Honolulu  
Department of the Army  
Fort Shafter, Hawaii 96858-5440  
Subject: Draft Environmental Assessment for Hawaiian Waters Adventure Park Master Plan Update, Kapolei, Ewa District, Island of Oahu, TMK No 9-1-16 009

Dear Mr. Young:

We have received your letter dated May 5, 2005 regarding the subject project in which you concluded that the proposed park improvements would not fall under the U. S. Army's Section 404 or Section 10 purview therefore not necessitating a DA permit

Your participation in the planning phase of this project is appreciated.

Sincerely,

Colette Sakoda

cc: Jerry Pupillo, HWAP  
Tim Hata, DPP



STATE OF HAWAII  
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM  
LAND USE COMMISSION

HONOLULU, HAWAII 96804-2359  
P.O. Box 2359  
Telephone: 808-547-3822  
Fax: 808-547-3827

ANTHONY J. H. CHING  
EXECUTIVE OFFICER

April 28, 2005

Mr. Jerry Pupillo  
Hawaiian Waters Adventure Park  
400 Farrington Highway  
Kapolei, Hawaii 96707

Dear Mr. Pupillo:

Subject: Comments on the Draft Environmental Assessment ("DEA") for Hawaiian Waters Adventure Park Master Plan Update, TMK: 9-1-016: 009

We have reviewed the subject application for the request forwarded by your correspondence dated April 6, 2005, and confirm that the subject parcel is within the State Land Use ("SLU") Agricultural and Urban Districts.

We request clarification as to the location of the Park on the subject property with respect to the boundaries of the SLU Agricultural District. The DEA states that an 800 square foot portion of the subject property is within the SLU Agricultural District, however, the depiction of the project in Figure 6 of the DEA appears to be much larger than 800 square feet.

Given the location, scope, and nature of the proposed activity, the State Land Use Commission defers to the judgment of the City and County of Honolulu regarding other matters in the application. We have no further comments to offer at this time.

Thank you for the opportunity to comment on the subject application. Please feel free to contact Max Rogers of my office at 587-3822 if you have any questions or need clarification.

Sincerely,

*Anthony J. H. Ching*  
ANTHONY J. H. CHING  
Executive Officer

cc: Tim Hata, Department of Planning & Permitting, City & County of Honolulu  
Genevieve Salmonson, Office of Environmental Quality Control  
Colette Sakoda, Environmental Planning Solutions

ENVIRONMENTAL PLANNING SOLUTIONS, LLC  
945 Makaiwa Street, Honolulu, HI 96816

Phone: 732-8602 Fax: 535-3188

June 27, 2005

Mr. Anthony J. H. Ching, Executive Officer  
Land Use Commission  
Department of Business, Economic Development & Tourism  
State of Hawaii  
P. O. Box 2359  
Honolulu, Hawaii 96804-2359

Subject: Draft Environmental Assessment for Hawaiian Waters Adventure Park Master Plan Update, Kapolei, Ewa District, Island of Oahu, TMK No. 9-1-16-009

Dear Mr. Ching:

We have received your letter dated April 28, 2005 regarding the subject project in which you requested clarification as to the location of the park on the subject property with respect to the boundaries of the SLU Agricultural District. Assuming the boundary delineation in Figure 6 of the DEA is correct since the source of the boundary interpretation map is your office, the portion of the park that remains in the Agricultural District is the rectangular piece located in the northwestern corner of tax map key no. 9-1-16-009. The size of this portion of concern was incorrectly reported as 800 square feet in the DEA, and will be edited to state in the Final EA that it measures 800' x 140', or 112,000 square feet (2.5 acres).

Thank you for your participation in the planning phase of this project.

Sincerely,

*Colette Sakoda*

Colette Sakoda

cc: Jerry Pupillo, HWAP  
Tim Hata, DPP  
Genevieve Salmonson, OEQC





STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

155 SOUTH KAPOLEI AVENUE  
KAPOLEI, HAWAII 96707  
TEL: 808-451-2000  
FAX: 808-451-2001  
WWW.OEQC.HAWAII.GOV

GENEVEVE SALMONSON  
DIRECTOR

ENVIRONMENTAL PLANNING SOLUTIONS, LLC  
945 Makaiwa Street, Honolulu, HI 96816 Phone: 732-8602 Fax: 538-3188

June 27, 2005

May 6, 2005

Mr. Jerry Pupillo  
Hawaiian Waters Adventure Park  
4001 Farrington Highway  
Kapolei, Hawaii 96707

Mr. Henry Eng  
Department of Planning and Permitting  
City and County of Honolulu  
650 South King Street, 7th Floor  
Honolulu, Hawaii 96813

Ms. Colette Sakoda  
Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

Dear Messrs. Pupillo and Eng, and Ms. Sakoda,

The Office of Environmental Quality Control has reviewed the draft environmental impact statement for the Hawaiian Waters Adventure Park Master Plan Update, Tax Map Keys, 1" 9.1-16, parcel 009, in the judicial district of Ewa, and offers the following comments:

1. CUMULATIVE AND SECONDARY IMPACT ANALYSIS: On page 43, please discuss the cumulative and secondary impacts related to traffic in the region. Is the visitor count to the park expected to increase as a result of the improvements (i.e., drive-in the area, additional rides, etc.)? Is the existing infrastructure for the region (outside of the facility boundaries) sufficient to accommodate the proposed improvements? Please consult with both the City and the State on proposed improvements related to traffic in the region, especially with respect to a possible Kapolei Interchange on the Interstate H-1.
2. SUSTAINABLE BUILDING GUIDELINES: Please refer to the Office of Environmental Quality Control Internet Site at [http://www.state.hawaii.gov/oeqc/html/for\\_sustainable\\_building\\_design\\_guidelines\\_in\\_your\\_planning\\_of\\_the\\_hawaiian\\_adventures\\_water\\_park\\_master\\_plan\\_improvements](http://www.state.hawaii.gov/oeqc/html/for_sustainable_building_design_guidelines_in_your_planning_of_the_hawaiian_adventures_water_park_master_plan_improvements).

Thank you for the opportunity to comment. If there are any questions, please call Mr. Leslie Segumb, Environmental Health Specialist, at (808) 546-4185.

Sincerely,  
*Genevieve Salmonson*  
GENEVEVE SALMONSON  
Director

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

Subject: Draft Environmental Assessment for Hawaiian Waters Adventure Park Master Plan Update, Kapolei, Ewa District, Island of Oahu, TMK No. 9-1-16 009

Dear Ms. Salmonson:

We have received your letter dated May 6, 2005 regarding the subject project. The following has been prepared in response to your comments:

1. CUMULATIVE AND SECONDARY IMPACT ANALYSIS:  
The discussion of cumulative and secondary impacts related to traffic in the region will be expanded in the Final EA. Proposed added attractions to the existing park are intended to enhance the park visitor's experience. While a slight increase in the number of visitors is expected, the net increase would not be substantial enough to come close to the total projected annual visitor count of 550,000 for which the park's on and off-site infrastructure systems were designed to accommodate. The facility will not impact the rate and location of development in the vicinity or on other commercially zoned land.

HWAP is aware that the proposed Kapolei Interchange may affect a portion of the park's property at the eastern end. DOT and DTS have been asked to comment on the proposed project, and that during the design phases of park improvements the DOT and DTS will be consulted.

2. SUSTAINABLE BUILDING GUIDELINES:  
Your recommended review of the OEQC sustainable building design guidelines will be considered in the planning of future park improvements.

Thank you for participating in the planning phase of this important project.

Sincerely,  
*Colette Sakoda*  
Colette Sakoda  
cc: Jerry Pupillo, HWAP  
Henry Eng, DPP



PHONE (808) 594-1868

FAX (808) 594-1865



STATE OF HAWAII  
OFFICE OF HAWAIIAN AFFAIRS  
711 KAPOLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813

HIHX05/1570B

April 22, 2005

Jerry Pupillo  
Hawaiian Waters Adventure Park  
400 Farrington Highway  
Kapolei, Hawaii 96707

RE: Draft Environmental Assessment of the Hawaiian Waters Adventure Park Master  
Plan Update, Kapolei, Oahu, Hawaii, TMK: 6-4-003:091

Dear Jerry Pupillo,

The Office of Hawaiian Affairs (OHA) is in receipt of your April 6, 2005, request for comments on the above project, which would include the development of a 5-acre portion of TMK: 6-4-003:091 and renovations within the existing water park grounds. OHA offers the following comments.

The property in question lies at the interface of the Ewa Plains, an area composed primarily of limestone bedrock, and the sloping basaltic outcrop of the Wai'anae Range; both areas are known to have sustained a substantial pre-contact population. The ahupua'a of Honolulu has been described in independent accounts as "a locus of habitation for thousands of Hawaiians." More than two dozen sets of human remains have been documented in the Ahupua'a, six at a distance of one mile from the coast. While the area of expansion has been heavily modified and is thought to have no surface cultural properties, there is a real possibility that sub-surface features exist within the area of proposed development, i.e. limestone sinkholes, crypts and cultural layers. With this in mind OHA recommends that an Archaeological Assessment be conducted on the 5-acre undeveloped portion of the project area, with particular attention given to locating sinkholes and overhangs. Archaeological Monitoring of all grading and ground disturbing activities within the area of proposed expansion is also recommended.

OHA commends the developer for the planned use of native flora in the landscaping of the project area. What is the current vegetative state of the 5-acre area of proposed expansion? What types of native flora, if any, exist in the area? If native plants do exist naturally within the project area, OHA recommends incorporating them into the future landscape.

Jerry Pupillo  
April 22, 2005  
Page 2

The Environmental Assessment states on page 20 that the "proposed improvements in this undeveloped area will likely result in reduced erosion." It is also stated on page 34 that "cleaning and grubbing will disturb soils and cause some soil erosion." What is the anticipated net effect to the project area and the above slopes? Due to the dry climate of the lower Wai'anae slopes of Honolulu, erosion as a long term impact is of concern to OHA. It is important that this is taken into consideration while developing a landscaping plan. Using flora that retains high concentrations of water is important in preventing erosion associated with the Aeolian (wind) process of relictinhabiting sediments.

OHA further requests your assurances that if the project goes forward, should iwi or Native Hawaiian cultural or traditional deposits be found during ground disturbance, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Thank you for the opportunity to comment. If you have further questions or concerns, please contact Jesse York at 594-1962 or e-mail him at [jessy@oha.org](mailto:jessy@oha.org).

Sincerely,  
5/14/05

*Clayton W. Nāmu'o*  
Clayton W. Nāmu'o  
Administrator

CC: Office of Environmental Quality Control  
235 S. Beretania St.  
Suite 702  
Honolulu, HI 96813

Department of Planning & Permitting  
650 S. King Street, 7<sup>th</sup> Floor  
Honolulu, HI 96813

✓ Tim Hata  
Environmental Planning Solutions, LLC  
945 Makaiwa St.  
Honolulu, HI 96816

Colette Sakoda  
Environet, Inc. Suite 212  
2850 Pa'a St.  
Honolulu, HI 96819

June 27, 2005

Mr. Clyde W. Namuo, Administrator  
Office of Hawaiian Affairs  
State of Hawaii  
711 Kapiolani Boulevard, Suite 500  
Honolulu, Hawaii 96813

Subject: Draft Environmental Assessment for Hawaiian Waters Adventure Park Master  
Plan Update, Kapolei, Ewa District, Island of Oahu, TMS No 9-1-16-009

Dear Mr. Namuo:

We have received your letter dated April 22, 2005 regarding the subject project. The following has been prepared in response to your comments and questions

1. Archaeological assessment recommended for 5-acre undeveloped portion, and archaeological monitoring of all grading and ground disturbing activities.

Response: Historical records referred to in the DEA (page 4 and Appendix B Phase I ESA) found that the property was in commercial agriculture from the early 1900s to 1930s; then used as a quarry for mining activities from about 1953 to 1978. The State Historic Preservation Division also concluded that the existence of historic sites in the project area, which includes expansion within the existing park boundaries, is unlikely because of past commercial cultivation of the land (9/30/04). Based on these findings, archaeological monitoring of new construction will not be necessary.

2. Current vegetative state of the 5-acre area of proposed expansion

Response: The 5-acre area, located at the northeastern end of the property, is being utilized as a storage area for empty containers and construction debris. Vegetation consists of weeds and grass. Native flora include kiawe, palm trees, hala, wiliwili, and koa haole in and around the developed park site.

3. Use of landscaping to minimize potential for soil erosion.

Response: The majority of the property is already developed as the water park, and besides the 5-acre portion, future expansion activities will occur within areas that have been previously cleared. As new park features are developed, construction plans will be prepared in accordance with City and County of Honolulu standards and regulations, and design reviews will likely include incorporation of appropriate erosion control features in landscape plans.

Mr. Clyde W. Namuo  
June 27, 2005  
Page 2

Last but not least, please be assured that the contractor will be required to stop work and contact appropriate agencies pursuant to applicable law should tui or Native Hawaiian cultural or traditional deposits be found during ground disturbance.

Thank you for participating in the planning phase of this project.

Sincerely,



Colette Sakoda

cc: Jerry Pupillo, HWAP  
Genevieve Salmonson, OFQC  
Tim Hata, DPP

BOARD OF WATER SUPPLY  
CITY AND COUNTY OF HONOLULU  
430 SOUTH BERTANIA STREET  
HONOLULU, HI 96843



May 4, 2005

Mr. Jerry Pupillo  
Hawaiian Waters Adventures Park  
400 Farrington Hwy  
Kapolei, Hawaii 96707

Dear Mr. Pupillo:

Subject: Draft Environmental Assessment Dated April 7, 2005 for the Hawaiian Waters  
Adventure Park Master Plan Update, TMK 9-1-16-9


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

Our comments of October 5, 2004, which are included in the Draft Environmental Assessment,  
are still applicable.

The additional water allocation must be obtained prior to building permit approvals.

If you have any questions, please contact Joseph Kaakua at 748-5442.

Very truly yours,

  
KEITH S. SHIDA  
Principal Executive  
Customer Care Division

cc: OECC, Tim Hata-Dept. of Planning & Permitting, Colette Sakoda-Environmental  
Planning Solutions LLC

05-0345

ENVIRONMENTAL PLANNING SOLUTIONS, LLC  
945 Makaiwa Street, Honolulu, HI 96816

Phone: 732-8602 Fax: 538-3168

June 27, 2005

Mr. Keith S. Shida, Principal Executive  
Customer Care Division  
Board of Water Supply  
City and County of Honolulu  
630 South Beretania Street  
Honolulu, Hawaii 96843

Subject: Draft Environmental Assessment for Hawaiian Waters Adventure Park Master  
Plan Update, Kapolei, Ewa District, Island of Oahu, TMK No. 9-1-16-009

Dear Mr. Shida:

We have received your letter dated May 4, 2005 regarding the subject project. Your  
comment regarding the need to obtain an additional water allocation from Campbell Estate has  
been noted. Construction plans will be submitted to the Board of Water Supply as part of any of  
the park's future building permit application processes.

Sincerely,



Colette Sakoda

cc: Mr. Jerry Pupillo, HWAP  
Mr. Tim Hata, DPP

**BOARD OF WATER SUPPLY**

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



September 1, 2005

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 HIGA, Ex-Officio

DONNA FAY K. KIYOSAKI  
Deputy Manager and Chief Engineer

Ms. Colette Sakoda  
Environmental Planning Solutions, LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

Dear Ms. Sakoda:

Subject: Revised Comments to our Letter of October 5, 2004, on the Hawaiian Waters  
Adventure Park Master Plan Update in Kapolei. TMK: 9-1-16:9

Thank you for the opportunity to comment on the proposed Hawaiian Water Adventure Park expansion.

The Hawaiian Water Adventure Park requires approximately 111,500 gallons of water per day (gpd) for the existing and proposed water needs. The current water allocation is 75,000 gpd. The developer is required to obtain additional water allocation for this shortfall from Campbell Estate. Previously, water consumption for the Park peaked at 126,000 gpd, but upon further review we feel that a two-year average of 111,500 gpd, inclusive of the proposed addition, is a more appropriate water allocation.

The availability of water will be confirmed when the Building Permit is submitted for approval.

The proposed project is subject to Board of Water Supply Cross-Connection Control and Backflow Prevention requirements prior to the issuance of the Building Permit applications.

If you have any questions, please contact Joseph Kaakua at 748-5442.

Very truly yours,

KEITH S. SHIDA  
Principal Executive  
Customer Care Division

cc: Mr. Tim Hata, Department of Planning and Permitting  
Mr. Jerry Pupillo, Hawaiian Waters Adventure Park

**ENVIRONMENTAL PLANNING SOLUTIONS, LLC**  
945 Makaiwa Street, Honolulu, HI 96816

Phone: 732-8802 Fax: 538-3168

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September 18, 2005

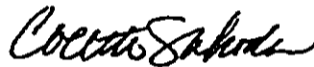
Mr. Keith S. Shida, Principal Executive  
Customer Care Division  
Board of Water Supply  
City and County of Honolulu  
630 South Beretania Street  
Honolulu, Hawaii 96843

Subject: Draft Environmental Assessment for Hawaiian Waters Adventure Park Master  
Plan Update, Kapolei, Ewa District, Island of Oahu, TMK No. 9-1-16:009

Dear Mr. Shida:

We have received your letter dated September 1, 2005 regarding the subject project, and note that the Board has revised the park's water allocation requirement to 111,500 gpd. Construction plans will be submitted to the Board of Water Supply as part of any of the park's future building permit application processes. Also, it has been noted that the proposed project is subject to Board of Water Supply Cross-Connection Control and Backflow Prevention requirements prior to the issuance of the Building Permit applications.

Sincerely,



Colette Sakoda

cc: Mr. Jerry Pupillo, HWAP  
Mr. Tim Hata, DPP

FIRE DEPARTMENT  
CITY AND COUNTY OF HONOLULU  
3375 BOHANNAN STREET SUITE 400 HONOLULU HAWAII 96819-1188  
TELEPHONE: (808) 831-7261 • FAX: (808) 831-7262 • INTERNET: www.honolulu.gov



WATER MARKING  
DATE: 04/29/2005

ATTY. & LEGAL COUNSEL  
FOR THE CITY  
JOHN CLARK  
ACTING FIRE CHIEF

Mr. Jerry Pupillo  
Page 2  
April 29, 2005

On-site fire hydrants and mains capable of supplying the required fire flow shall be provided when any portion of the facility or building is in excess of the 150 feet (45 720 mm) from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building. (1997 Uniform Fire Code, Section 903.2 as amended)

3. Submit civil drawings to the HFD for review and approval.

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

Sincerely,

  
JOHN CLARK  
Acting Fire Chief

JCSK:hh

cc: Ms. Genevieve Salmonson, Director  
State of Hawaii, Department of Health, Office of Environmental Quality Control  
Mr. Timothy Hata, City and County of Honolulu, Department of Planning and Permitting  
Ms. Colette Sakoda, Environmental Planning Solutions, LLC

Mr. Jerry Pupillo  
Hawaiian Waters Adventure Park  
400 Farrington Highway  
Kapolei, Hawaii 96707

April 29, 2005

Dear Mr. Pupillo:

Subject: Draft Environmental Assessment  
Hawaiian Waters Adventure Park Master Plan Update  
Kapolei, Oahu, Hawaii  
Tax Map Key: 9-1-016: 009

We received a letter dated April 7, 2005, from Colette Sakoda of Environmental Planning Solutions, LLC requesting that our comments on the above-mentioned project be submitted to you.

The Honolulu Fire Department (HFD) requires that the following be complied with:

1. Provide a fire apparatus access road for every facility, building, or portion of a building hereafter constructed or moved into or within the jurisdiction when any portion of the facility or any portion of an exterior wall of the first story of the building is located more than 150 feet (45 720 mm) from fire apparatus access as measured by an approved route around the exterior of the building or facility. (1997 Uniform Fire Code, Section 902.2.1)
2. Provide a water supply, approved by the county, capable of supplying the required fire flow for fire protection to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed or moved into or within the county.



ENVIRONMENTAL PLANNING SOLUTIONS, LLC  
945 Makaha Street, Honolulu, HI 96816

Phone: 732-9802 Fax: 538-3188

June 27, 2005

Honorable John Clark, Acting Chief  
Fire Department  
City and County of Honolulu  
3375 Koapaka Street, Suite H425  
Honolulu, Hawaii 96819-1869

Subject: Draft Environmental Assessment for Hawaiian Waters Adventure Park Master  
Plan Update, Kapolei, Ewa District, Island of Oahu, TMK No. 9-1-16-009

Dear Acting Chief Clark:

We received your letter dated April 29, 2005 regarding the subject project. Your comments regarding meeting the requirements set forth in 1997 Uniform Fire Code, Sections 902.2.1 and 903.2 as amended have been noted for the park's future facilities. Your comment regarding provision of a water supply capable of supplying the required flow for fire protection to premises in the park has also been noted.

Please be assured that civil drawings for future park facilities will be submitted to the Fire Department for review and approval.

Thank you for your participation in the planning phase of this project.

Sincerely,



Colette Sakoda

cc: Ms. Genevieve Salmonson, OEQC  
Mr. Tim Hata, DPP  
Mr. Jerry Pupillo, HWAP

ENVIRONMENTAL PLANNING SOLUTIONS, LLC  
945 Makani Street, Honolulu, HI 96816 Phone 732-8602 Fax 535-3189

September 7, 2005

Mr. Lester Chang, Director  
Department of Parks and Recreation  
City and County of Honolulu  
1040 Luohia Street, Ste 309  
Kapolei, Hawaii 96707

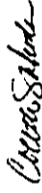
Subject: Draft Environmental Assessment for Hawaiian Waters Adventure Park Master Plan Update, Kapolei, Ewa District, Island of Oahu, TMK No. O-1-16-009

Dear Mr. Chang:

We have received your letter dated April 21, 2005 regarding the subject project in which you stated that the Department of Parks and Recreation had no comment as the proposed Master Plan Update will not impact any of your facilities or programs. Also, in response to your request, DPR has been removed our consulted party list for the balance of the Environmental Assessment process.

Your participation in the planning phase of this project is appreciated.

Sincerely,



Colette Sakoda

cc: Jerry Pupillo, HWAP  
Tim Hata, DPP

April 21, 2005

Mr. Jerry Pupillo  
Hawaiian Waters Adventure Park  
400 Farrington Highway  
Kapolei, Hawaii 96707

Dear Mr. Pupillo:

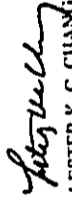
Subject: Draft Environmental Assessment  
Hawaiian Waters Adventure Park Master Plan Update

Thank you for the opportunity to review and comment on the Draft Environmental Assessment relating to the Master Plan Update for Hawaiian Waters Adventure Park.

The Department of Parks and Recreation has no comment and as the proposed Master Plan Update will not impact any of our facilities or programs, you can remove us as a consulted party to the balance of the Environmental Assessment process.

Should you have any questions, please contact Mr. John Reid, Planner, at 692-5454.

Sincerely,



LESTER K. C. CHANG  
Director

LKCC:mik  
(1/06/02)

cc: Department of Planning and Permitting  
Mr. Tom Hata, Environmental Planning Solutions LLC



DEPARTMENT OF PLANNING AND PERMITTING  
**CITY AND COUNTY OF HONOLULU**  
630 SOUTH KING STREET 7TH FLOOR - HONOLULU HAWAII 96813  
TELEPHONE (808) 531-6332 • FAX (808) 531-6333  
CITY INTERNET [www.honolulu.gov](http://www.honolulu.gov) • PERMITTING [permits.honolulu.gov](http://permits.honolulu.gov)



PERMITTING JACOB  
WALTERS  
LARRY INOUE  
MANAGER

2005/ED-3 (TH)

May 24, 2005

Mr. Jerry Pupillo  
General Manager  
Hawaiian Waters Adventure Park  
400 Farrington Highway  
Kapolei, Hawaii 96707

Dear Mr. Pupillo:

Draft Environmental Assessment for Hawaiian Waters Adventure Park  
Master Plan and Update, Kapolei, Oahu, Tax Map Key 9-1-016-009

We have reviewed the subject Draft Environmental Assessment (DEA) and offer the following comments.

**Executive Summary:** We recommend that paragraph 3 be revised as follows to clarify the types of approvals that the applicant will need to obtain so that the proposed master plan and update can be achieved:

"Prior to implementing the proposed master planned updates, the HWAP will need to secure three major approvals from the Department of Planning and Permitting (DPP) as an "outdoor amusement facility." Applications for the three major approvals will be submitted after the Environmental Assessment/Environmental Impact Statement has been completed.

First, the HWAP must submit a State Land Use (SLU) District Boundary Amendment (less than 15 acres) in accordance with Chapter 26 Revised Ordinances of Honolulu (ROH). The SLU District Boundary Amendment is needed to reclassify approximately 115,000 square feet (2.6 acres) of land within the project site from the Agricultural District to the Urban District to be consistent with the remainder of the project site, which is currently in the State Urban District.

Second, the HWAP must submit a zone change application to the DPP in accordance with Chapter 21, ROH. The HWAP would rezone the entire 30-acre facility from AG-2 General Agricultural District to B-2 Community Business District. Approval of the zone change will permit the HWAP to operate as an outdoor amusement facility.

Third, the HWAP will need to submit an application for a Conditional Use Permit (CUP)-Major in accordance with Chapter 21 ROH. The CUP-Major is required to evaluate the proposed

Mr. Jerry Pupillo, General Manager  
Hawaiian Waters Adventure Park  
May 24, 2005  
Page 2

project's community-based impacts generally associated with amusement facilities such as noise and traffic."

**Introduction:** Section 1.1 (page 2) and Section 1.6 (page 7) states that the water park has two restaurants and a catering kitchen, respectively. We recommend that the final EA clarify whether the restaurants and catering kitchen serve only water park visitors or are open to the general public. The food and beverage facilities approved under 93/CUP-1-35 were only permitted as an accessory to the outdoor recreational facility and are not permitted uses in the AG-2 General Agricultural zoning district.

The Final EA should revise the sections of the EA to reflect the correct amount of land subject to the State Land Use Boundary amendment of approximately 115,000 sf rather than 800 sf.

**Description of the Project:** Section 2.2 of the DEA states that the actual number of park visitors was 293,000 for 2003. The final EA should reflect more current visitor numbers if available. We recommend revising Section 2.3 to clarify whether the proposed elements of the master plan update will be operated as part of the existing water park operations or with different independent operators. Also, please provide more specific details (e.g., size, number of members or customers anticipated) of the master plan elements, including the potential size and use of the "Future Access Road/Driveway" which is located on an adjoining lot mauka of the existing parking lot.

The DEA does not provide information on the size and height of the proposed drive-in theater screen, miniature golf structures, flow-rider, slides, batting cage nets, or on potential visual impacts to view corridors. The final EA should address potential visual impacts of the proposed improvements on mauka-makai views with particular attention paid to the proposed drive-in theater screen.

**Consistency With Public Policies, Plans and Regulations:** We recommend revising Section 3.2.1 by discussing how the proposed project would support Objective C, Policy 2 (Physical Development and Urban Design) that relates to supporting a secondary urban center in Ewa with its nucleus in the Kapolei area.

Section 2.2.9 of the Ewa DP points out important historical and cultural resources, including important views that should be preserved and enhanced. We also recommend that the applicant prepare a view study to address any potential visual impacts on mauka-makai views and views of significant landmarks, such as Puu Palalalai that may result from the proposed improvements, especially the drive-in movie theater screen.

The water park is located within the City of Kapolei as shown in Exhibit 3.3 of the Ewa DP. The final EA should also discuss how the proposed project supports the policies, principles and guidelines that contribute to fully developing the City of Kapolei in Section 3.5 of the Ewa DP.

Mr. Jerry Pupillo, General Manager  
Hawaiian Waters Adventure Park  
May 24, 2005  
Page 3

The final EA should provide an expanded discussion of the purpose and intent of the B-2 Community Business District and how the proposed project would be consistent with this type of commercial zoning district rather than the existing AG-2 General Agricultural District zoning. The revision should also discuss the height limits associated with B-2 zoning.

We recommend that the final EA provide a chronological history of the applicant's compliance with the CUP-1 it initially obtained.

Assessment of Existing Human Environment, Potential Impacts, and Mitigation Measures: We understand that individual responses to written comments are not required for the pre-assessment phase under Chapter 343 HRS or Section 11-200.9 Hawaii Administrative Rules. However, please assure that all substantive comments submitted during the pre-consultation phase and the 30-day comment period for the DEA will be addressed in the body of the final EA.

Section 5.8 of the DEA should be revised to describe the potential noise impacts from the proposed drive-in theater, amphitheater, sports courts and fitness center, go-cart lane, and new parking area adjacent to the new retail stores on the residential area of Makakilo that is in close proximity of the water park. Additionally, please discuss whether the go-cart operation will produce any odor or fumes. Noise generated by these proposed attractions may be objectionable to nearby residents when compared to the ambient sound levels residents may currently experience during evening hours. We recommend that the applicant prepare a noise study to determine if the proposed uses would create any noise impacts to Makakilo residents. The noise study and any mitigation measures needed to attenuate noise impacts should be discussed in the final EA.

Section 5.8.2 should be expanded to discuss the water park's current average daily sewage flows. Furthermore, this section should also disclose that wastewater from the water park is currently discharged into the city's wastewater system via a 12-inch sewer main that runs from the water park under Farmington Highway and the H-1 Freeway to the city's 21-inch sewer main in the City of Kapolei. The 12-inch main was constructed by the applicant as a condition of its lease agreement with landowner, Campbell Estate. However, the 12-inch main was not built to city standards and contains "slight undulations" that affect its performance. In August 2003, the applicant and the Department of Environmental Services (ENS) signed an agreement (attached) whereby the ENS accepts responsibility for the "future maintenance and/or replacement" of the 12-inch main under certain conditions. However, the agreement does not appear to cover an increase in sewage flows to the inadequate sewer main. Therefore, the 12-inch sewer main needs to be replaced. Average daily sewage flows from the water park at full build out and the estimated cost of the new sewer main should be included in the final EA.

Section 5.9.5 states that most of the park visitors would arrive by individual vehicles or four buses. However, other park visitors may arrive by public transit. The water park should be easily accessible by public transit since it is a regional recreational attraction that appeals to a young population of which a sizable portion does not drive. We are aware of an existing public

Mr. Jerry Pupillo, General Manager  
Hawaiian Waters Adventure Park  
May 24, 2005  
Page 4

bus stop located in the southwest portion of the site. However, the bus stop is not identified on the 2002 Site Plan (Figure 2), or discussed in the DEA or Traffic Impact Analysis Report (Appendix A). Therefore, we recommend that public transit be addressed in the final EA and that Figure 2 and Appendix A be revised accordingly.

The DEA fails to address outdoor lighting that may be used by the water park and potential impacts it may have on migratory birds. We recommend the final EA discuss whether the water park will be using outdoor lighting during evening hours. If so, we recommend that all exterior lighting be fully shielded to minimize impact on protected avifauna.

According to the (October 5, 2004) letter from the Board of Water Supply (BWS) to the applicant, the water park has been using substantially more water than was allocated to them by Campbell Estate when the water park first opened. The BWS mentioned that the water park should obtain an additional water allocation from Campbell Estate for the shortfall and proposed additional demand. We recommend that the final EA disclose this shortfall and whether the water park has obtained the additional allocation or not since the BWS raised this issue last October.

Appendix A: We generally concur with the findings contained in the draft Traffic Impact Analysis Report. At the appropriate time, the applicant should work with the state Department of Transportation and the city regarding possible improvements to Farmington Highway. Such improvements may include but is not limited to road widening, sidewalks and street lighting.

Appendix C: Regarding the minutes from the December 3, 2004 Makakilo/Kapolei/Honokai Hale Neighborhood Board No. 34 meeting, it is not clear whether the applicant's briefing included all the proposed improvements to the water park or just the miniature golf course component. The final EA should clarify exactly what was discussed at the December meeting.

Minor Clarifications/Corrections: We recommend revising the DEA by making the following clarifications or corrections to the final EA:

The Table of Contents lists Police Protection and Fire Protection as 5.9.2 and 5.9.3, respectively. However, police and fire protection are discussed under one heading (5.9.2) on page 33 of the DEA.

Please revise the term "Rules of Honolulu" to "Revised Ordinances of Honolulu" in paragraph 3, page 1; and paragraph 2 of Section 1.2.

We want to clarify that the water park was approved under a Conditional Use Permit (CUP) Type 1 by the former Department of Land Utilization, and not a CUP Major (which is what will be required today, if the zone change is approved).

ENVIRONMENTAL PLANNING SOLUTIONS, LLC  
945 Makaiwa Street, Honolulu, HI 96818 Phone: 732-8602 Fax: 538-3168

June 27, 2005

Mr. Henry Eng, Director  
Department of Planning and Permitting  
City and County of Honolulu  
650 South King Street, 7<sup>th</sup> Floor  
Honolulu, Hawaii 96813  
Attention: Ms. Kathy Sokugawa

Subject: Draft Environmental Assessment for Hawaiian Waters Adventure Park Master Plan Update, Kapolei, Ewa District, Island of Oahu, TMK No. 9-1-16-009

Dear Mr. Eng:

We have received your letter dated May 24, 2005 regarding the subject project. The following has been prepared in response to your comments:  
**Executive Summary:** While this section already describes the types of approvals required for achievement of HWAP's master plan update, your suggested revisions will be incorporated as appropriate.

**Introduction:** Current food outlets serve existing park visitors as an accessory to the outdoor recreational facility as was approved under 93(CUP)-1-35. HWAP would like to in the future build a restaurant open to both the public and park visitors. The final EA will clarify this.

The Final EA will reflect the correct land area subject to the State Land Use Boundary amendment.

**Description of the Project:** The final EA will reflect year 2004 attendance which was 320,000. With regard to proposed elements of the master plan update, the same operators will be operating the future projects. Designed to accommodate a maximum number of 550,000 annual visitors in 1998, HWAP as an outdoor recreational facility has never achieved this capacity crowd. The proposed improvements may result in overall increases in annual attendance, but not enough to reach the originally anticipated number of 550,000 annual visitors.

The maximum size and heights of the miniature golf structures, flow-riders, slides, batting cage nets would be less than the multiple radar dishes found in the satellite farm on the northwest corner parcel immediately adjacent to and at a higher elevation than the water park. The final EA will address visual impacts in this manner.

**Consistency with Public Policies, Plans and Regulations:** The final EA will be revised to include: (1) how the proposed project would support Objective C, Policy 2 (Physical Development and Urban Design) of the General Plan; (2) potential impacts on mauka-makai views and views of Puu Palalāi that may result from the water park's proposed improvements; (3) purpose and intent of the B-2 zoning district and how the proposed improvements would place the water park more appropriately in this district rather than the existing AG-2 zoning; and (4) a history of the applicant's compliance with the CUP-1 initially obtained.

Mr. Jerry Pupillo, General Manager  
Hawaiian Waters Adventure Park  
May 24, 2005  
Page 5

Staff at the Office of Environmental Quality Control is unaware of the term "Hawaii Environmental Policy Act." To minimize confusion, we recommend that the correct term be used when referring to Chapter 343 Hawaii Revised Statutes.

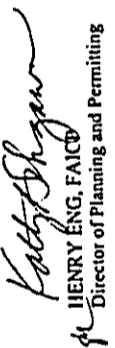
Please replace "Land Use Designation" with "Urban Land Use Map" on page 16, Section 3.2.2; and page 39, Section 7.7.

Section 3.4 should be revised by replacing "Building Department requirements" with "City standards" since the Building Department no longer exists.

In Section 5.10, the "Department of Public Works" no longer exists in the City and County of Honolulu. The Erosion control plan, which is required prior to the granting of a grading permit, should be submitted to the DPP.

Thank you for the opportunity to comment on this matter. Should you have any questions, please contact Tim Hata of our staff at 527-6070.

Sincerely yours,

  
HENRY ENG, FAICD  
Director of Planning and Permitting

HE:js

Attachment

cc: Environmental Planning Solutions LLC  
Office of Environmental Quality Control  
P:\D:\Section 16-1\2005\HWAP\DEA FONSI\492

Mr. Henry Eng  
June 27, 2005  
Page 2

How the project supports the Ewa DP policies, principles and guidelines of developing the City of Kapolei is discussed in Section 3.2.2 Ewa Development Plan (page 16) of the DEA

Assessment of Existing Human Environment, Potential Impacts, and Mitigation Measures All substantive comments submitted during the pre-consultation and 30-day comment period for the DEA are being addressed in the final EA.

The final EA has been revised to discuss potential noise, odor and fumes impacts from proposed improvements including amphitheater, go-cart lane, and parking area at the eastern end on the residential area that is closest to the water park. Outdoor lighting and potential impacts on migratory birds has been addressed in the final EA.

While the final EA discussion of potential impacts of proposed improvements on existing wastewater facilities has been revised to include discussion of the August 2003 maintenance fund agreement, it also notes that the 12-inch main sewer main constructed by the applicant was built according to design specifications prepared to city standards. The only departure from the ENV's expectation was the park's contractor's choice of material used for the sewer main.

With respect to the final EA discussion of other public infrastructure the following has been addressed:  
(1) the existing public bus stop has been identified on the conceptual plan and in the TIAR (Appendix A), and (2) additional water allocation from Campbell Estate as raised by the Board of Water Supply during the pre-assessment period.

Appendices A and C. At the appropriate time, the applicant will work with the state Department of Transportation and the city regarding possible improvements to public roadways. The basis of the park's infrastructure was an assumed annual attendance of 550,000 persons, and current attendance is at 370,000 (2004). Therefore, no improvements are anticipated as necessary at this time. The final EA clarifies the components of the proposed improvements to the water park as discussed at the December 3, 2003 Kapolei neighborhood board meeting. We would be happy to revisit the Kapolei neighborhood board to present a progress report during the upcoming zone change application review process.

Minor Clarifications/Corrections Recommended revisions as delineated have been incorporated into the final EA.

Thank you for your participation in this important planning phase of the project.

Sincerely,



Colette Satoda

cc: Mr. Jerry Pupillo, FIWAP

DEPARTMENT OF DESIGN AND CONSTRUCTION  
CITY AND COUNTY OF HONOLULU  
815 SOUTH KING STREET, 11<sup>TH</sup> FLOOR  
HONOLULU, HAWAII 96813  
PHONE: (808) 523-4386 • FAX: (808) 523-4787  
WWW.DDC.HONOLULU.HI.GOV



DAVID HANAUWANI  
DIRECTOR

ROBERT M. HANAUWANI  
DIRECTOR  
DEPARTMENT OF  
DESIGN AND CONSTRUCTION

May 4, 2005

Ms. Colette Sakoda  
Environmental Planning Solutions LLC  
945 Makaiwa Street  
Honolulu, Hawaii 96816

Dear Ms. Sakoda:

Subject: Draft Environmental Assessment  
for Hawaiian Waters Adventure Park Master Plan Update

The Department of Design and Construction, City & County of Honolulu, has no comments to submit for this project.

Should you have any questions, please contact Eugene Lee, Deputy Director, at 523-4716.

Sincerely,

*Eugene Lee*  
EUGENE M. HASHIRO, P.E.  
Director

WM:imy (100350)

ENVIRONMENTAL PLANNING SOLUTIONS, LLC  
945 Makaiwa Street, Honolulu, HI 96816

Phone 732-8602 Fax 538-3168

September 7, 2005

Mr. Wayne Hashiro, Director  
Department of Design and Construction  
City and County of Honolulu  
650 South King Street, 11<sup>th</sup> Floor  
Honolulu, Hawaii 96813  
Attention: Mr. Eugene Lee, Deputy Director

Subject: Draft Environmental Assessment for Hawaiian Waters Adventure Park Master  
Plan Update, Kapolei, Ewa District, Island of Oahu, TALK No 9-1-16 099

Dear Mr. Hashiro

We have received your letter dated May 4, 2005 regarding the subject project in which you stated that the Department of Design and Construction had no comments to submit

Your participation in the planning phase of this project is appreciated

Sincerely,

*Colette Sakoda*  
Colette Sakoda

cc Jerry Pupillo, HWAP  
Tim Hata, DPP

DEPARTMENT OF ENVIRONMENTAL SERVICES  
CITY AND COUNTY OF HONOLULU  
1000 ULUOHIA STREET, SUITE 308 KAPOLEI, HI 96707  
TELEPHONE: (808) 462-5187 FAX: (808) 462-5113 WEBSITE: <http://www.cc.hawaii.gov>



DAFT HAWAII  
Mayor

ERIC S. TAKAMURA, P.E.  
Director

KENNEITH A. SHIBATA  
Deputy Director

PRO 05-013

May 9, 2005

Mr. Jerry Pupillo  
Hawaiian Waters Adventure Park  
400 Farmington Highway  
Kapolei, Hawaii 96707

Dear Mr. Pupillo:

Subject: Hawaiian Waters Adventure Park, Master Plan Update  
Draft Environmental Assessment (EA)

We have reviewed the subject Draft EA, dated March 2005, and have the following comments:

In Section 5.8.2, Wastewater Facilities, on pp. 31-32, there should be more complete disclosure of the background information on wastewater flows. Please include information on the original design wastewater flow, including the basis of the flow estimates, current wastewater flows and anticipated increases in flow due to the proposed action. Copies of approved sewer connection applications, and any pending applications, should be included in an appendix. The provision of more complete information in this EA document will enable our department to respond more efficiently to issues regarding wastewater service for this facility.

Thank you for the opportunity to comment on the Draft EA. Should you have any questions, please call Jack Pobuck, Program Coordinator, at 692-5727.

Sincerely,

Eric S. Takamura  
Director

cc: Environmental Planning Solutions LLC  
Dept. of Planning & Permitting, CCH

ENVIRONMENTAL PLANNING SOLUTIONS, LLC  
945 Makaiwa Street, Honolulu, HI 96816

Phone: 732-8602 Fax: 538-3168

June 27, 2005

Dr. Eric S. Takamura, Director  
Department of Environmental Services  
City and County of Honolulu  
1000 Ulukouia Street, Suite 308  
Kapolei, Hawaii 96707

Subject: Draft Environmental Assessment for Hawaiian Waters Adventure Park Master  
Plan Update, Kapolei, Ewa District, Island of Oahu, TMK No. 9-1-16 009

Dear Dr. Takamura:

We have received your comments dated May 9, 2005 regarding the subject project. The final EA has been revised to include information on the basis of the original design of the wastewater system improvements as well as potential impacts of the proposed project on the existing system.

Thank you for your participation in the planning phase of this project.

Sincerely,

Colette Sakoda

cc: Mr. Jerry Pupillo, HWAP  
Mr. Tim Hata, DPP

DEPARTMENT OF FACILITY MAINTENANCE  
CITY AND COUNTY OF HONOLULU  
1000 ULUOHIA STREET, SUITE 215, KAPOLEI, HAWAII 96707  
TELEPHONE: (808) 417-5000 FAX: (808) 417-5557  
WWW.CITYANDCOUNTYOFHONOLULU.HI



MULTI-MEDIA  
SERVICE

LAVERNE HIGA, P.E.  
DIRECTOR AND CHIEF ENGINEER  
CIVIL ENGINE  
REGISTERED PROFESSIONAL ENGINEER

IN REPLY REFER TO  
DRAWING NO. 05-426

May 4, 2005

Mr. Jerry Pupillo  
Hawaiian Waters Adventure Park  
400 Farrington Highway  
Kapolei, Hawaii 96707

Dear Mr. Pupillo:

Subject: Draft Environmental Assessment (DEA) for  
Hawaiian Waters Adventure Park Master Plan Update

Thank you the opportunity to review and comment on the Draft Environmental Assessment dated March 2005 for the subject project. We have no comments to make at this time.

Should you have any questions, please call Charles Pignataro of our Division of Road Maintenance, at 484-7696.

Very truly yours,

*Laverne Higa*  
LAVERNE HIGA, P.E.  
Director and Chief Engineer

cc: DPP (with DEA document)  
Environmental Planning Solutions, LLC

ENVIRONMENTAL PLANNING SOLUTIONS, LLC  
945 Makaiwa Street, Honolulu, HI 96816

Phone: 732-8602 Fax: 538-3188

September 7, 2005

Ms. Laverne Higa, Director and Chief Engineer  
Department of Facility Maintenance  
City and County of Honolulu  
1000 Uluohia Street, Ste 215  
Kapolei, Hawaii 96707

Attention: Mr. Charles Pignataro, Div. of Road Maintenance

Subject: Draft Environmental Assessment for Hawaiian Waters Adventure Park Master Plan Update, Kapolei, Ewa District, Island of Oahu, TMK No. 9-1-16 000

Dear Ms. Higa

We have received your letter dated May 4, 2005 regarding the subject project in which you stated that the Department of Facility Maintenance had no comments at this time.

Your participation in the planning phase of this project is appreciated.

Sincerely,

*Colette Sakoda*

Colette Sakoda

cc: Jerry Pupillo, HWAP  
Tim Hata, DPP

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



BOISSE P. CORREA  
CHIEF  
JERRY PUPILLO  
DEPUTY CHIEF

BS-KP

April 13, 2005

Mr. Jerry Pupillo  
Hawaiian Waters Adventure Park  
400 Farrington Highway  
Kapolei, Hawaii 96707

Dear Mr. Pupillo:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the Hawaiian Waters Adventure Park Master Plan Update.

The project should have no significant impact on the facilities or operations of the Honolulu Police Department.

If there are any questions, please call Major Michael Tamashiro of District 8 at 692-4253 or Mr. Brandon Stone of the Executive Bureau at 529-3644.

Sincerely,

BOISSE P. CORREA  
Chief of Police

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

cc Ms Genevieve Salmonson, OEQC  
Mr. Tim Hata, DPP  
Ms Colette Sakoda, Environmental Planning Solutions LLC

*Serving and Protecting with Aloha*

**ENVIRONMENTAL PLANNING SOLUTIONS, LLC**  
945 Makaiwa Street, Honolulu, HI 96818  
Phone: 732-8602 Fax: 538-3168

September 7, 2005

Mr Boisse P. Correa, Chief  
Police Department  
City and County of Honolulu  
801 South Beretania Street  
Honolulu, Hawaii 96813  
Attention: Assistant Chief Karl Godsey

Subject: Draft Environmental Assessment for Hawaiian Waters Adventure Park Master Plan Update, Kapolei, Ewa District, Island of Oahu, TMK No 0-1-1-16 009

Dear Chief Correa

We have received your letter dated April 13, 2005 regarding the subject project in which you stated that the project should have no significant impact on the facilities or operations of the Honolulu Police Department

Your participation in the planning phase of this project is appreciated

Sincerely,

*Colette Sakoda*

Colette Sakoda

cc Genevieve Salmonson, OEQC  
Jerry Pupillo, HWAP  
Tim Hata, DPP



DEPARTMENT OF TRANSPORTATION SERVICES  
CITY AND COUNTY OF HONOLULU



TPD05-00258

MAY 16, 2005

Mr. Jerry Pupillo  
Hawaiian Waters Adventure Park  
400 Farrington Highway  
Kapolei, Hawaii 96707

Dear Mr. Pupillo:

Subject: Hawaiian Waters Adventure Park Master Plan Update

Thank you for the April 7, 2005 letter from Environmental Planning Solutions LLC requesting our comments on the draft Environmental Assessment (EA) for the subject project. We have the following comments as the result of our review:

1. The jurisdiction of Farrington Highway and Old Farrington Highway should be defined in the EA and identified on one of the figures.
2. Section 5.2 Roadways and Traffic
  - A plan of the area fronting the park should be included to clarify the driveway layout and turning movements.
  - The EA should specify whether the peak day traffic numbers in Table 1 (Page 25) are for the "with" or "without" project improvements scenario. Also, the number of annual visitors listed in Table 1 (Page 25) is not consistent with the number provided in Table 1 of Appendix A (Page 2).
  - The EA should specify whether Figure 7 (Page 26) shows "projected" or "existing" traffic volumes and whether or not these volumes are for the "with" or "without" project improvements scenario.

Project File No.	1871	Map	2
Project Name	Hawaiian Waters Adventure Park	Sheet	2
Project Type	CD	Scale	AS SHOWN
Project No.	2005-00258	Date	05/16/05
Project Location	400 Farrington Highway, Kapolei, HI	Drawn by	W. H. H.
Project Status	Final	Checked by	W. H. H.
Project Manager	Jerry Pupillo	Reviewed by	W. H. H.

Mr. Jerry Pupillo  
Page 2  
May 16, 2005

3. Appendix A, Traffic Impact Analysis Report

- The Existing Conditions section (Pages 1 and 2) should be updated to reflect the current turning movements allowed at each driveway. Our plans show that left turns are currently not allowed out of the east driveway, and there is a deceleration lane for motorists turning right into the park.
- For comparison purposes, a simulation of visitor traffic, similar to that shown in Table 2 (Page 3), should be provided for the months where the park hours are from 10:00 a.m. to 10:00 p.m.
- The Traffic Assignment and Analysis section (Pages 4-6) should be updated to reflect the restricted left turn out of the park's east driveway.
- The Need for Traffic Signals at Site Driveways section (Pages 7 and 8) should also consider and discuss the crash experience warrant. Furthermore, the last paragraph of this section states that "Alternatives could be considered to provide sufficient capacity for left turns from the driveways." These "alternatives" should be discussed.
- In the Conclusions and Recommendations section (Page 8), the preparation of a Traffic Management Plan should be discussed in relation to delivery schedules and driveway use.

Should you have any questions regarding these comments, please contact Falih Miyamoto of the Transportation Planning Division at 527-6976.

Sincerely,  
  
EDWARD Y. HURATA  
Director

cc: Ms. Genevieve Salmonson  
Office of Environmental Quality Control  
Mr. Tim Hata  
Department of Planning and Permitting  
Ms. Collette Sakoda  
Environmental Planning Solutions LLC

Mr Edward Y Hirata  
 September 10, 2005  
 Page 2

September 10, 2005

Mr Edward Y Hirata, Director  
 Department of Transportation Services  
 City and County of Honolulu  
 650 South King Street, 3<sup>rd</sup> Floor  
 Honolulu, Hawaii 96813  
 Attention: Mr. Faith Miyamoto

Subject: Draft Environmental Assessment for Hawaiian Waters Adventure Park Master Plan  
 Upelele, Kapolei, Ewa District, Island of Oahu, T.M.K. No. 9-1-16-049

Dear Mr Hirata

We have received your letter dated May 16, 2005 regarding the subject project on September 6, 2005. The following has been prepared in response to your comments:

1. Junction of Farrington Highway and Old Farrington Highway - Farrington Highway, (south frontage of HWAP) and Old Farrington Highway (west frontage of HWAP) are under City jurisdiction.
2. Section 5.2 Roadways and Traffic
  - Figure 2 in the final TIAE contains information regarding driveway and turn movements
  - Table 1 in the Final EA reflects "future with project" traffic numbers. The Final TIAE table has been updated and is now consistent with those reflected in the Final EA
  - The figures and tables in the traffic report and Final EA indicate either "existing" or "future" conditions. All "future" conditions are with the proposed project
3. Descriptions in the existing conditions section were based on field observations made in February and March 2005. There were no signs or pavement markings prohibiting left turns out from the east driveway. As for the deceleration lane for motorists turning right into the park, the draft report states that "John Farrington Highway, separate lanes have been provided for turns into the driveway."

The simulation for the shorter day was used to estimate the worst case, with maximum visitation. The shorter day is expected to have higher peak hour volumes. For comparison purposes, see below (bold entries from July traffic report, Table 3)

	short day (10:00 AM - 4:00 PM)		long day (10:00 AM - 10:00 PM)	
	entering	existing	entering	existing
11:45 AM - 12:45 PM	225	110	190	65
1:15 PM - 2:15 PM	140	205	80	120
3:00 PM - 4:00 PM	45	165	65	95
5:45 PM - 6:45 PM	0	0	110	65

There is a traffic signal warrant based on crash experience. However, due to the difficulty non-government entities have in obtaining crash information, this warrant was not considered. We have not heard news reports that indicate that the crash warrant would be satisfied at either of the site driveways. Our understanding is that if there is a concern, DPP-Traffic Review Branch will look up the crash experience and raise the issue.

• Section 4C (08 Warrant 2 Crash Experience of the Minimum Traffic Control Service states: "Support. The Crash Experience signal warrant conditions are intended for application where the severity and frequency of crashes are the principal reasons to consider installing a traffic control signal."

Standard. The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:

A. Adequate trial of alternatives with satisfactory observation and enforcement has failed to reduce the crash frequency; and

B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash.

There is a third condition for minimum volumes.

Alternatives that could be considered were not discussed in detail as part of the traffic study for this EA because the alternatives would require changes to the access of Parcel 2 (across Farrington Highway from HWAP). One alternative that could work would be to prohibit left turns out of Parcel 2 opposite HWAP's east driveway, relocating these turns to a new driveway opposite HWAP's west driveway. This alternative should have been discussed in the traffic report for Parcel 2.

Conclusions and Recommendations section while not specifically referring to a "Traffic Management Plan", states "(mitigation... includes scheduling of deliveries and service vehicles so that they do not leave the site during the times visitors to the park leave". Since the proposed project is not expected to result in any significant increase in deliveries and service vehicles, this requires a Traffic Management Plan necessary for future conditions.

Your participation in the planning phase of this project is appreciated.

Sincerely,

*Collette Salcedo*

Collette Salcedo

cc: Jerry Pupillo, HWAP  
 Tim Hata, DPP

ENVIRONMENTAL PLANNING SOLUTIONS, LLC  
945 Makawia Street, Honolulu, HI 96818 Phone 732-8602 Fax 538-3166

September 7, 2005

Hawaiian Telecom  
P.O. Box 2200  
Honolulu, HI 96811

Reply to  
HHBY3

May 2, 2005

Mr. Jerry Pupillo  
Hawaiian Waters Adventure Park  
400 Farrington Highway  
Kapolei, HI 96707

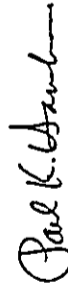
Dear Mr. Pupillo:

Subject: Hawaiian Waters Adventure Park Master Plan Update - Draft Environmental Assessment

Thank you for the opportunity to review and comment on the draft environmental assessment document for the Hawaiian Waters Adventure Park Master Plan Update. We have no comments to add to your document at this time.

If you have any questions or require assistance in the future, please call me at 840-1447.

Sincerely,



Paul Hanohano  
OSP Engineering

cc: Dept of Planning & Permitting  
Environmental Planning Solutions, LLC

Mr. Paul Hanohano  
OSP Engineering, HHBY3  
Hawaiian Telecom  
P O Box 2200  
Honolulu, Hawaii 96841

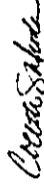
Subject: Draft Environmental Assessment for Hawaiian Waters Adventure Park Master Plan Update, Kapolei, Ewa District, Island of Oahu, TMK No 9-1-16 009

Dear Mr. Hanohano

We have received your letter dated May 2, 2005 regarding the subject project in which you stated that you had no comments to add to the document at this time

Your participation in the planning phase of this project is appreciated

Sincerely,



Colette Sakoda

cc: Jerry Pupillo, HWAP  
Tim Itata, DPP

**Neighborhood Board Consultation**



**MAKAKILO/KAPOLEI/HONOKAI HALE NEIGHBORHOOD BOARD NO. 34**

of the NEIGHBORHOOD COMMISSION • 636 SOUTH KING STREET, ROOM 600 • HONOLULU, HAWAII 96813  
PHONE: (808) 537-8748 • FAX: (808) 537-8783 • INTERNET: [www.cc.honolulu.hi.us](http://www.cc.honolulu.hi.us)

December 19, 2003

City & County of Honolulu  
Dept. of Planning & Permitting  
650 So. King Street  
Honolulu, HI 96813

Re: Hawaiian Adventure Water Park Rezoning for a proposed Recreational Miniature Golf Course.

Gentlemen:

At its December 3<sup>rd</sup>, 2003 monthly meeting, the Makakilo/Kapolei/Honokai Hale Neighborhood Board No. 34 received a presentation for the proposed rezoning for the Hawaiian Water Park proposal for a recreational mini golf course.

After the presentation and discussion a vote was taken. The Board voted to support this proposed rezoning with a unanimous vote.

Please feel free to call me at 525-5601 if you have any questions.

Sincerely,

*Maeda C. Timson*

Maeda C. Timson  
Chair (Comp. Fee)

MT



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## MAKAKILO/KAPOLEI/HONOKAI HALE NEIGHBORHOOD BOARD

### REGULAR MEETING MINUTES

WEDNESDAY, DECEMBER 3, 2003

CAMPBELL ESTATE, LAULIMA ROOM

**CALL TO ORDER:** Chair Timson called the meeting to order at 7:30 p.m., with a quorum of nine members present. She welcomed everyone and invited them to share some refreshments that were provided by Campbell Estate.

**MEMBERS PRESENT:** Brent Buckley, Kioni Dudley, Michael Golojuch, Shad Kane, Martha Makaiwi, Jane Ross, George Yamamoto, Linda Young, and Maeda Timson.

**MEMBERS ABSENT:** None.

**GUESTS:** R. Fenstemacher and Cal Sueoka (Board of Water Supply – BWS); M. Kido, Cynthia Rezens, Steven Chang (Dept. of Health – DOH), Linda and Wes Frysztacki (WESLIN), Cheryl Soon (Mayor's Representative), Pat lee, Ali Cudzilo (Councilmember Gabbard's Office staff), Carol Gabbard (Board of Education – BOE), Councilmember Nestor Garcia, Barry Usagawa (BWS), Pam Witty-Oakland (Sen. Kanno's Office staff), Merrie Aipolani (Rep. Kahikina's Office staff), Rene Mansho (Hawaii Metal Recycling Company), Keith Timson, Ron Ho (DOH – Clean Air Branch), Theresia McMurdo (Campbell Estate), Lt. Greg Yamamoto (Honolulu Police Department – HPD), Captain Robert Mann (Honolulu Fire Department – HFD), Jerry Pupillo (Hawaiian Adventures Water Park), and Charles Herrmann Jr. (Neighborhood Commission Office staff).

**BOARD MEMBERS' ROLL CALL:** The Neighborhood Assistant called roll and informed the Chair that there was a quorum of nine members present.

Dudley objected to the agenda because he said he requested that the aircraft carrier issue be on this agenda and for some reason it is not. He said the issue of adding it to the agenda was discussed at the last meeting and he thought it would be included. Chair Timson said the issue is not as time sensitive as the issues on the agenda tonight and she would add it to the next agenda. She also said when the issue was discussed last month Dudley asked if there were any objection and there were none, but no motion was made to add the issue to the agenda or to reconsider the previous vote. Dudley said that was unacceptable. **Dudley moved and Buckley seconded the motion to add the home porting of the aircraft carrier on the agenda. Motion failed 3-6-0. Ayes:** Dudley, Kane, and Yamamoto. **Nays:** Buckley, Golojuch, Makaiwi, Ross, Young, and Timson.

Chair Timson thanked the Campbell Estate representative for the refreshments and read Chapter 4 of the Revised Neighborhood Plan regarding order and decorum. Chair Timson asked if there were any objections to allowing the police and fire reports to be done at this time. The agenda was taken out of order without objection.

### MONTHLY REPORTS, PART I:

**Honolulu Police Department – HPD** – Lt. Greg Yamamoto distributed copies of the November 2003 monthly written report and highlighted the following: 1) the statistics for the month included 11 assaults, 18 auto thefts, 22 burglaries, 10 harassments, 3 DUI, 2 identity thefts, 14 motor vehicle thefts, 65 MVA, 11 property damages, 1 robbery, 2 sexual assaults, 52 thefts, 7 threatening, and 8 unauthorized entry into a motor vehicle. 2) What to do if you are a victim of Identity theft: a) note the date and time you discover the theft and keep detailed notes. Keep adding information to this log and keep it for future reference even if your credit has been restored; b) Report the crime to HPD immediately and get a police report number for future reference, get a verification letter from the records division. A copy of the letter can be given to your creditors when you dispute fraudulent charges; c) immediately notify the three major credit bureaus, Equifax: (800) 525-6285, Experian: (888) 397-3742, and Trans Union: (800) 680-7289; d) notify all of your financial institutions. Cancel all credit cards and bank accounts if your cards and checks are stolen. Ask the companies to notify you when attempts are made to use your closed accounts then notify HPD. Keep records of all communications with financial institutions and police and monitor your monthly financial statements and credit report.

**MAKAKILO/KAPOLEI/HONOKAI HALE**

**NEIGHBORHOOD BOARD NO. 34**

**REGULAR MEETING MINUTES**

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**Honolulu Fire Department – HFD** – Captain Robert Mann reported the following: 1) the statistics for the month of November 2003 included: 31 fires, 1 rupture/explosion, 70 emergency medical service/rescue, 6 hazardous conditions, 4 service calls, 12 good intent calls, 7 false alarms, and 9 hazmat responses. 2) Fire Safety Tip: If your

clothes catch on fire, stop, drop, and roll. Stop where you are and drop to the floor or ground. Cover your face with your hands and roll your body back and fourth to smother the flames. Do not run! It will fuel the flames. 3) Christmas Safety Tips: a) a fresh Christmas tree that is watered daily will stay green longer and be less of a fire hazard than a dry tree; b) Locate the tree out of the way of traffic; do not block doorways; and do not place under stairwells; c) Only use lights that have been tested for safety; i.e., Underwriters Laboratory (UL) or Factory Mutual (FM). Do not use more than three standard-size sets of lights per a single extension cord; d) Never use lighted candles on or near the tree; e) Practice an emergency escape plan with your family in the event of a fire; f) Remember that there is no substitute for common sense. Look for and eliminate and potential dangers.

Questions, answers and comments followed: Responding to Chair Timson, Capt. Mann said item IIB (rupture/explosion) could be anything from a propane tank to a gas tanks rupturing or exploding, he will follow-up on the exact nature of the incident.

The order of the agenda was returned to at this time.

**COMMUNITY CONCERNS:**

**Asia Pacific Environmental – Medical Waste Stockpile** – Steve Chang gave the following update on the facility. Since October 29, 2003, they treated or diverted about 46,000 pounds of backlog medical waste (9,000 treated and 37,000 diverted). Incoming waste is either stored onsite or diverted to another treatment facility. Pathological waste is in refrigerated storage. Current estimates of medical waste onsite (per department inspection on November 17, 2003) include: 10,000 six-gallon buckets of biohazard/chemotherapy waste; 3,000 cardboard containers of sharps; thirty fifty-five gallon drums of waste; waste is stored outdoors, indoors, and in shipping containers. On October 29, 2003 they had 10,000 six-gallon buckets, 3,000 six-gallon cardboard containers, and 35,000 pounds in fifty-five gallon drums and seventeen-gallon containers.

On December 1, 2003 they had 9,800 six-gallon buckets, 3,000 six-gallon cardboard containers, and 3,000 pounds in fifty-five gallon drums and seventeen-gallon containers. In the last thirty days they received 7,300 pounds of new waste, diverted 37,000 pounds and processed 9,000 pounds of primarily pathological waste.

Questions, answers, and comments followed:

- 1) Responding to Yamamoto, Chang said the material that was moved was sent to another medical waste facility here on O'ahu.
- 2) Responding to Ross, Chang said he had asked the facility to process the bulging containers first and to refrigerate the rest of them. The danger, if one exploded, would be the same as being exposed to blood and body parts. The facility already has protocol in place to deal with the danger if one does explode.
- 3) Responding to Dudley, Chang said the facility is processing material much slower than DOH would like, currently they are processing about 600 pounds per day. The facility is currently allowed to process 2000 pounds per day, but it is taking longer than expected due to the heavy liquid from the material being melted in the plasma arc burner.
- 4) Responding to Dudley, Chang said the material that is being transferred is being transferred to another processing facility on the island.
- 5) Responding to Golojuch, Chang said DOH is trying to work with the company to ensure that they stay financially solvent while cleaning the backlog up.

MAKAKILO/KAPOLEI/HONOKAI HALE

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- 6) Responding to Chair Timson, Chang said some of the containers are dated from back in June. Chair Timson said the reason many in the community do not trust the facility is because the problem started back in June and DOH was not notified until last month.
- 7) Responding to Chair Timson, Chang said the material that comes from the outer islands is repacked and shipped to another processing facility.
- 8) Responding to Chair Timson's report that the Hawaii Business News reported that the company lost a judgment for \$150,000 recently and they face another lawsuit because they have not paid their loan back, Chang said DOH is pushing them as hard as they can without causing them to go out of business because then the taxpayers would have to fund the clean-up.
- 9) Responding to Chair Timson, Chang said the landowner is possibly Campbell Estate, but he will follow-up to make sure. Chair Timson asked Chang to report back to the Board at the January meeting, Chang said he would.
- 10) Chair Timson asked the Neighborhood Assistant to read for the record Sen. Kanno's comments on the matter. Neighborhood Assistant Herrmann read the following from Sen. Kanno: "on behalf of our community, I would like to ask the Director of the Department of Health, to take aggressive action to protect the health and safety of our residents. I understand that HRS 321-21 holds the DOH responsible for the management and disposal of infectious wastes generated ... Additionally, HRS 321-1 states that when in the judgment of the Director, there is deemed to be a potential health



hazard, the department may take precautionary measures to protect the public. I would suggest that a potential hazard exists, and request action on the part of the DOH to facilitate the immediate processing of the medical waste by either: expediting the permit for additional capacity; issuing a temporary or conditional permit for the additional capacity; or in the event of issues beyond permitting; assume control of the facility to take whatever actions necessary to process the waste, and more importantly, to protect the health and safety of our community".

- 11) Ross commented that it would do no good to increase their permit limit as indicated in Sen. Kanno's information since they can't handle what they already receive. Chang responded the facility is currently fully operational and some of their problem has been caused by US Customs holding up the delivery of the needed carbon rods from China. Chang continued the facility is running about 12 hours per day and a lot of their time is being spent opening and repacking material for reshipping. Responding to Ross's comment that they should process 24 hours a day, Chang said it is a matter of their capacity. Responding to Ross, Chang said DOH is making sure the facility processes the backlog material immediately and they are in discussion with the Attorney General's Office on what other options they have available to them.
- 12) Rep. Moses reported that he had attended site visits of the Joint Senate and House Committee of two other facilities on the island, but the two site visits scheduled for this facility had been cancelled. He said he was puzzled why they couldn't process material faster. Chair Timson asked Chang to take Rep. Moses with him since DOH has the authority to visit the facility.
- 13) Responding to a resident, Chang said DOH is checking the documentation for the other processing facilities to ensure they can handle the material sent to them from this facility without going over their capacity. The resident asked that DOH divert all incoming material until they process the entire backlog.
- 14) Responding to another resident, Chang said the facility has refrigerated all of the material they were asked to on the Friday after the last Board meeting.
- 15) Responding to a resident, Chang said only the DOH has the authority as the oversight for the facility and that is why the facility can reject Rep. Moses' request for a visit.
- 16) Makaiwi suggested Chair Timson write a letter to the DOH expressing the community's concerns.

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- 17) Chair Timson asked Ted Liu, Governor's Representative, to take the community concerns back to the Governor and ask for her help with the problem.

**Other Community Concerns:**

**Waimanalo Gulch Landfill Facility** – Chair Timson reported receiving a letter from Ko O'lina expressing their concern for the flying debris and smells from the dump. She will forward the letter to the proper City agency.

**ANNOUNCEMENTS:**

**Friends of Makakilo** – Dudley reported the next meeting would be on December 4, 2003 at the Makakilo Recreation Center at the top of Makakilo Drive at 7:00 p.m.

**Sunset on the Planes** – Young reported on December 13 and 14, 2003 the community will be having their Sunset on the Planes celebration event. The event will help celebrate 100 years of manned flight and feature a movie on both nights, fireworks, a parade, great food and vendors, and air shows, and events at the Kalaeloa airfield. Golojuch, Jr., added that the parking for the event will cost \$1.00 and is to benefit the Campbell and Kapolei Project Graduations. A coloring and essay contest was held and 100 winners will be awarded a free flight on Saturday, December 13, 2003. Volunteers are needed for the events; call any committee member for information. Volunteers that work at least a four-hour shift will receive a free event tee shirt and a free meal.

**Lions Club Christmas Parades** – Kane announced there would be two Christmas parades sponsored by the Makakilo/Kapolei Lions club. One parade will be during the day and the other one at night on Saturday, December 6, 2003.

**PRESENTATIONS:**

**HECO – Wai'au Pipeline Project Status Update** – A representative from HECO reported the project involves thirteen miles of pipeline from the Wai'au Power plant to Campbell Industrial Park. Construction will start in the Waipahu area and head toward Kapolei. There will be no construction in the Kapolei area until after the holidays. Residents can expect typical trenching construction equipment. The horizontal drilling method will be used in this area, this involves drilling horizontal holes and pulling pipe through the holes. This method is much less invasive than regular trenching. Construction equipment will be stored next to the Kapolei Longs. HECO has established a Pipeline Information Hotline at 543-5665 for any questions or concerns relating to the project.

**Hawaiian Adventures Water Park – Mini Golf Course** – Jerry Pupillo reported Island Adventure golf is a phase of development in the existing water park facility. The adventure golf development is being created to offer an exciting adventure style recreational activity in a safe and beautiful environment for the entire family. The facility will offer a proven mix of adventure style miniature golf in a Hawaiian theme, integrating a combination of creative and challenging golf, stunning water features and lush tropical landscaping foliage. The main emphasis is Hawaii's natural beauty. The total project cost is estimated at \$700,000.00 including design, architectural, construction and pre-opening fees. The facility will be capable of handling 1200 guests per day. The location is ideally situated for water park participants and non-park users and offers the capability of operations after water park closure. They need a zone change for about one-acre of land and expect minimum impact to the area as the infrastructure is already in place. Anyone wanting a tour please call the Water Park and go to extension 101.

Questions, answers and comments followed:

- 1) Responding to Yamamoto, Pupillo said the facility will be where the existing sand volleyball court currently is located inside the park and a new fence will be put up around the facility.
- 2) Responding to Golojuch, Pupillo said package deals will be available and residents can either golf or use the water park separately or with a combination package they could use both facilities.

MAKAKILO/KAPOLEI/HONOKAI HALE

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- 3) Responding to Sueoka, Pupillo said they would also have to relocate some of the picnic area near the volleyball court.
- 4) Responding to Buckley, Pupillo said the zone change is for approximately 30 acres of land under the current facility.

- 5) Responding to Young, Pupillo said currently they have a Conditional Use Permit and it was suggested to them that it would be a good time to do the zone change while they are building the miniature golf course.
- 6) Chair Timson complimented the generous contributions the water park has made to the community and said she hopes the trickle down effect contributes to the other businesses in the community. She also complimented their educational programs in math and science and thanked them for their donation to the December 13, 14 2003 Sunset on the Planes event.
- 7) Responding to Ross, Pupillo said the price for separate golf packages should be \$6 - \$7.00 per round; coupons would be available as will water park combo packages.
- 8) Responding to Buckley, Pupillo said call their listed phone number and go to extension 101 for information on package deals.

Yamamoto moved and Makaiwi seconded the motion that the Board supports the zoning change from A2 to B1 as requested by the applicant and that the Board sends a letter of support to the appropriate City agencies. Motion carried unanimously, 9-0-0.

Kapolei Rezoning Application and Kapolei Update – Donna Goth reported the Kapolei Property development, LLC, is pleased to announce its intent to seek rezoning of the final commercial components of the City of Kapolei.

The approximately 192-acre zoning area is comprised of three parcels: 1) a 153-acre parcel within the City proper, situated between Kalaeloa Boulevard and Fort Barrette Road bordering both sides of the proposed Kapolei Parkway. Under the Ewa Development Plan it is zoned High Density Residential and Commercial, while the proposed zoning would be B-2 Community Business District; 2) a 14 acre parcel sandwiched between Farrington Highway and the H-1 Freeway, just below the Hawaiian Waters Adventure Park. Under the Ewa development Plan it is zoned High Density Residential and Commercial, while the proposed zoning would be B-2 Community Business District; and 3) a 25-acre parcel between Farrington Highway and the H-1 Freeway, east of Fort Barrette Road. Under the Ewa development Plan it is zoned Low and Medium Density Residential, while the proposed zoning would be B-2 Community Business District. The zoning applicant will address the following topics: 1) consistency with the General Plan and Ewa Development Plan; 2) compliance with the Land Use Ordinance; 3) impact on infrastructure adequacy; 4) compliance with environmental laws and regulations; and 5) mitigation of community issues and concerns. The uses proposed in the rezoning will be in general conformance with the Ewa Development Plan and the City of Kapolei Urban Design Plan and represent the fulfillment of the long-range vision for the City. For further information, please contact Donna Goth of Kapolei Property Development, LLC, 1001 Kamokila Boulevard, #225, Kapolei, Hawaii 96707 or phone 674-3229.

Questions, answers, and comments followed:

- 1) Responding to Dudley, Goth said area between the freeway and Kapolei Knolls was widened already about two years ago and there is no land to widen it because all of the land has been taken. Responding to Dudley, Goth said they announced funding several transportation projects last week and they believe that will help eliminate the current transportation problems. Dudley said he disagrees with Goth and Makakilo Drive must be widened because of its physical limitations.
- 2) Yamamoto commended Campbell Estate for making the \$11 million loan so that transportation upgrades to the community could be done.

MAKAKILO/KAPOLEI/HONOKAI HALE

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- 3) Responding to Bob Farrell, Goth said the proposed UH West O'ahu is not on the map because they are currently in negotiation to move the proposed campus below the freeway.
- 4) Chair Timson also added her thanks for the \$11 million to complete the much needed transportation projects.
- 5) Dudley said he appreciated the \$11 million, but he thinks they will be creating another problem with the rezoning and not widening Makakilo Drive.

Yamamoto moved and Makaiwi seconded the motion that the Board supports the proposed zoning changes and that the Board sends a letter to the appropriate City agencies. Motion carried 8-1-0. Ayes: Buckley, Yamamoto, Kane, Young, Golojuch, Makaiwi, Ross, and Timson. Nay: Dudley.

COMMITTEE REPORTS:

Capital Improvement Project (CIP) Recommendations from Board – Chair Timson turned the gavel to Vice Chair Golojuch to Chair this section of the meeting. Golojuch distributed a list of eight proposed CIP project recommendations and asked each Board member to list their personal priority for the projects. The following projects were on the list: 1) Traffic signal at Kapolei Parkway and Ft Barrette Road. 2) Multi-use gymnasium at Kapolei Regional Park. 3) Repave, realign and/or improve the entrance to the Kapolei Regional Park near the archery range, hula mound and forthcoming skateboard park. 4) Palailai Neighborhood Park – complete the master plan, which includes a walking paths and workout stations. 5) Install steps and ADA accessible path to ball field at Makakilo Community Park. 6) Accessible curb cuts along sidewalk in front of Mauka Lan Elementary School. 7) Complete the parking lot at Kapolei Regional Park (Manawai Street and Kamaaha Avenue). 8) Complete repaving of Makakilo Drive. After some discussion between the Board and the Mayor's representative, Cheryl Soon, it was decided that the City would not support spending money on State property for State projects such as project number one.

Dudley moved and Buckley seconded making number eight the Board's first priority. Motion failed 4-3-2. Ayes: Yamamoto, Buckley, Dudley, and Golojuch. Nays: Makaiwi, Young and Timson. Abstained: Ross and Kane. *The Board has nine members meaning five votes in favor are required for a motion to pass, therefore this motion failed because it received only four votes in favor.*

Buckley moved and Young seconded the motion to make number seven the Board's first priority. Motion carried 8-0-1. Abstained: Dudley.

Young moved and Timson seconded the motion to make number three the Board's second priority. Motion carried, 8-1-0. Nay: Buckley.

Young moved and Buckley seconded the motion to make number one the Board's third priority. Motion carried, 8-1-0. Nay: Dudley.

9:40 p.m., Board member Yamamoto left at this time, leaving eight members present.

Timson moved and Young seconded the motion that the Board allows Committee Chair Golojuch to prioritize the rest of the list with the information provided by each Board member earlier. Motion failed 4-2-2. Ayes: Dudley, Kane, Young, and Timson. Nays: Buckley and Ross. Abstained: Golojuch and Makaiwi. *The Board consists of nine members meaning five votes in favor of the motion are required for the motion to pass, therefore this motion failed because it received only four votes in favor of the motion.*

Ross moved to reconsider and Young seconded the motion. Motion carried 7-1-0. Nay: Buckley.

Buckley called for the question.

#### MAKAKILO/KAPOLEI/HONOKAI HALE

#### NEIGHBORHOOD BOARD NO. 34

#### REGULAR MEETING MINUTES

WEDNESDAY, DECEMBER 3, 2003

#### PAGE 7

Timson moved and Young seconded the motion to allow Committee Chair Golojuch to prioritize the rest of the proposed CIP list with the information provided by each Board member earlier. Motion failed 2-5-1. Ayes: Kane and Ross. Nays: Buckley, Dudley, Timson, Makaiwi, and Young. Abstained: Golojuch.

Dudley moved and Young seconded the motion that the Board's priority for the rest of the proposed list be as follows: number eight would be their fourth priority; number six would be their fifth priority; number five would be their sixth priority; number four would be their seventh priority; and number two would be their eighth priority. Motion carried 7-0-1. Abstained: Golojuch.

Transportation Improvement Program (TIP) – Chair Golojuch distributed copies of the Board's transportation update as of November 20, 2003, which list projects that are listed on the State TIP. He asked all Board member to read it and keep it for informational purposes.

At this time, 10:05 p.m., the Board took a short recess while the Neighborhood Assistant left the meeting, leaving the Board's secretary Young to take the rest of the minutes.

Submitted By:

Charles Herrmann Jr.

Neighborhood Assistant

Wednesday, December 24, 2003

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**Approved Sewer Connection Applications and  
Sewer Line Maintenance Agreement of Aug. 27, 2003**

**ENGINEERING CONCEPTS, INC.**  
 250 Ward Avenue, Suite 206  
 Honolulu, Hawaii 96814  
 (808) 591-8820

**LETTER OF TRANSMITTAL**

TO: Horizon Amusement  
11883 Silver Cliff Way  
Gold River, CA 95670

DATE October 28, 1998	JOB NO.
ATTENTION Dave Busch	
RE: Waters of Kapolei	

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:  
 Shop drawings  Prints  Plans  Samples  Specifications  
 Copy of letter  Change order  see below \_\_\_\_\_

COPIES	DATE	NO.	DESCRIPTION
1 1			Approved Sewer Connection Application Industrial Wastewater Discharge Permit Application

THESE ARE TRANSMITTED as checked below:

For approval  Approved as submitted  Resubmit \_\_\_\_\_ copies for approval  
 For your use  Approved as noted  Submit \_\_\_\_\_ copies for distribution  
 As requested  Returned for corrections  Return \_\_\_\_\_ corrected prints  
 For review & comment \_\_\_\_\_  
 FOR BIDS DUE \_\_\_\_\_  PRINTS RETURNED AFTER LOAN TO US

REMARKS

The Industrial Wastewater Discharge Permit Application has been submitted to the Wastewater Branch for their approval.

COPY TO \_\_\_\_\_ SIGNED: Craig Archuleta  
 If enclosures are not as noted, kindly notify us at once.

RECEIVED

OCT 26 1998

ENGINEERING CONCEPTS



City and County of Honolulu

**SEWER CONNECTION APPLICATION**  
(Allow at least 2 weeks processing time)

Application No: 98-0685 Status: Approved  
 Log Date: 10/19/98 IWDP App No: \_\_\_\_\_  
 Project Name: Waters of Kapolei  
 Address: FarringtonHwy/Kalaaloa Blvd  
 TMK: 9-1-16:6:0000, 9-1-16:9:0000

Development (Type): \_\_\_\_\_ Other \_\_\_\_\_ If Commercial, Area = \_\_\_\_\_

Units Proposed:	Land Use	Unit Count
	Commercial	6500
	Fast Foods	10
	Sports Arena	10000

Sewer Connection Work Desired: connect to existing sewer line in Kapolei Parkway offsite sewer line to be constructed under "Waters of Kapolei, Farrington Hwy. Improvements and Offsite Sewer Line".

Approximate Date of Connection: \_\_\_\_\_

Existing Structures:	Type of Structure	No. of Units	Demolish or Remain
	None	0	Demolish

Remarks:

Information Provided By:

Name: Craig Arakaki App Date: 10/12/98

Firm: Engineering Concepts, Inc. Phone: 591-8820

Mailing Address: 250 Ward Ave., Suite 206

City: Honolulu State: HI Zipcode: 96814



DEPARTMENT OF PLANNING AND PERMITTING



City and County of Honolulu

**SEWER CONNECTION APPLICATION**  
(Allow at least 2 weeks processing time)

Current Zoning: Ag-2 Restricted Dev. Plan: Agriculture  
Sewer System: Adequate  
City to Perform Installation: No Charges: Yes  
No. of Permits Expected: 1  
Charges:

Application Approved: Yes  
By: A. Saavedra, Jr. Date: 10/21/98  
A. Saavedra, Jr.  
*Valid 2-years after approval date. Construction plans shall be completed and approved within this 2-year period. Construction shall commence within 1-year after approval of plans.*  
Remarks: This project is liable for payment of a wastewater system facility charge payable at time of approval of the building permit application. Also, an Industrial Wastewater Discharge Permit application is required.  
Expiration Date: 10/20/00

LOG NO. \_\_\_\_\_ PERMIT NO. \_\_\_\_\_

**INDUSTRIAL WASTEWATER DISCHARGE PERMIT  
SURVEY/APPLICATION**

**CITY AND COUNTY OF HONOLULU  
DEPARTMENT OF PLANNING & PERMITTING  
SITE DEVELOPMENT PERMITS DIVISION  
WASTEWATER BRANCH, 1ST FLOOR  
650 SOUTH KING STREET, HONOLULU, HAWAII 96813**

Be advised that Section 14-5.1, Paragraph (a) of the Revised Ordinances of Honolulu, 1990, as amended, indicates, no person shall discharge or cause to be discharged any industrial wastewater into the public sewers without first being evaluated for the issuance of an industrial wastewater discharge permit. Please answer all questions. Indicate "NA" if the question does not apply to your business. If you have any questions please call: 523-4951 or 527-6733.

**PART I - ORGANIZATION**

**1. Business Name and Street Address:**

Waters of Kapolei, LLC  
DBA \_\_\_\_\_  
Street: Farrington Hwy./Kalaheo Blvd.  
City: Kapolei State: HI Zip: 96707  
Tax Map Key: 9-1-16:Por. 6 & 9

**2. Contact Person:**

Name: Guy Brown  
Title: Project Manager  
Telephone: 395-2058

**3. Mail Permit to:**

(If different from above)

Attn: Craig Arakaki  
Company: Engineering Concepts, Inc.  
Street: 250 Ward Avenue, Ste. 206  
City: Honolulu State: HI Zip: 96814

**4. Reason for Application/Survey:**

- a. BUILDING PERMIT..... XX  
(Include "Sewer Connection Application")
- b. New Business.....
- c. Permit Renewal.....
- d. Relocation.....  
Your Previous Business Name: \_\_\_\_\_  
Your Previous Address: \_\_\_\_\_

**5. Vehicle Washing:**

- a. Do you wash vehicles on site? yes \_\_\_\_\_ no X
- b. If yes, where is the wash water discharged:  
Storm drain \_\_\_\_\_ Sanitary Sewer \_\_\_\_\_ Other \_\_\_\_\_
- c. If your answer to Question b was "Other" Describe where the wash water is discharged: \_\_\_\_\_
- d. Is the area covered? yes \_\_\_\_\_ no \_\_\_\_\_
- e. If area is not covered do you have a two way valve?  
(e.g. wash water discharged to sewer, rainwater to storm drain)  
yes \_\_\_\_\_ no \_\_\_\_\_

**6. Business/Description:**

(e.g. restaurant, auto repair shop, fish market, grocery store, type of doctors office, product line, type of manufacturing/service provided, wholesale/retail, etc)  
waterpark

- a. Business Hours: 10 a.m. to 6 p.m.
- b. Estimated number of meals served daily.....
- c. Name of business previously at this location if known: \_\_\_\_\_

**PART II - WATER USAGE/DISCHARGE**

**1. Estimate the Average Daily Water Usage.** [Check a. or b.] (Refer to water bill if you are billed separately)

- a. 0 to 25,000 gallons per day. \_\_\_\_\_
- b. Over 25,000 gallons per day. X

**2. What is the Nature of the Industrial Wastewater You Discharge.** (e.g., washing pots and pans, dish washing, floor cleaning, equipment washing, truck or car washing, product manufacturing, etc.) Backwash  
of pumps for pools and sides.

(Continued on Reverse Side)

**PART III - PRETREATMENT DEVICES**

1. **Do You Have One or More of the Following?** (Please answer all questions) Yes                      No
- a. Do you have floor drains in your facility located in your production/maintenance/work area? \_\_\_\_\_ X
- b. Grease Interceptor (s). (Restaurants/bars, caterers, commercial kitchens, schools, hospitals etc.) \_\_\_\_\_ X

**General Information on Grease Interceptors**

Grease Interceptor	Location (kitchen, outside, parking lot, etc)	Inside Dimensions (in inches)		
		Length	Width	Height (to water line)
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____

- c. Oil Interceptor (s). (Auto repair, vehicle washes)..... \_\_\_\_\_ X
- d. Neutralization System (s). (Laboratory, schools, x-ray/photo processing, printers, etc.) \_\_\_\_\_ X
- e. Silver Recovery Unit (s). (X-ray/photo processing, printers, etc.)..... \_\_\_\_\_ X
- f. Solids Interceptor (s). (Hospitals, dentists, ceramic/craft shops, jewelers, etc.)..... \_\_\_\_\_ X
- g. Hair Interceptor (s). (Barber shops, beauty salons, dog groomers, veterinarian, etc.) \_\_\_\_\_ X
- h. Lint Trap (s). (Laundromats, commercial laundries, hotel laundries, etc.) ..... \_\_\_\_\_ X
- i. Water Recycling System (s). (Trucking companies, rental car co., auto/truck washes, etc.) \_\_\_\_\_ X
- j. Cooling Tower/Boiler (s). (Hotels, office buildings, malls, hospitals, etc.)..... \_\_\_\_\_ X

2. **Hauled Industrial Waste.** This section pertains to those liquid waste that are 100% collected and NOT DISPOSED OF DOWN ANY DRAINS. Do not include hauled waste associated with maintaining or servicing of any pretreatment devices (e.g. Grease Interceptors, Oil Interceptors, Neutralization Tanks, Silver Recovery Unit, etc.)

Please indicate the type, amount in gallons, and frequency. (e.g. daily, weekly, monthly, quarterly, yearly) wastes are collected.

	Amount	Frequency
a. Hazardous/Bio Hazardous waste (i.e. lab chemicals, formaldehyde, herbicides, pesticides)_____	_____	_____
b. Acid Bath (i.e. jewelry plating, chrome plating, electro-plating)_____	_____	_____
c. Used automotive/marine products (used motor oil, anti-freeze, battery acid)_____	_____	_____
d. Solution from x-ray, photo processing, photo copying or printing equipment _____	_____	_____
e. Cesspool or septic tank_____	_____	_____
f. Bulk used cooking oil (i.e. deep fryer, wok)_____	_____	_____
g. Other Waste_____ Please describe_____	_____	_____

**PART IV - ADDITIONAL INFORMATION**

Please provide any additional information which would describe your operation or the nature of your industrial wastewater discharge in more detail. Separate permit application to be submitted for food service improvements.

**CERTIFICATION**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

<p><u>Craig Arakaki</u> Original Signature (No Copies Please)</p> <p><u>Craig Arakaki, Associate</u> Print or Type Name and Title</p>	<p><u>10-28-98</u> Date</p> <p><u>591-8820</u> Phone Number</p>
---	---

For WWM Use Only  
 Log No. \_\_\_\_\_  
 IWDP No. \_\_\_\_\_

DEPARTMENT OF PLANNING AND PERMITTING  
 City and County of Honolulu  
~~DEPARTMENT OF WATER RESOURCES~~  
 550 South King Street, 1st Floor • Honolulu Municipal Building • Honolulu, Hawaii 96813

**SEWER CONNECTION APPLICATION**  
 (Allow at least 2 weeks processing time)

**TO BE FILLED OUT BY APPLICANT (PLEASE PRINT LEGIBLY)**

1. Project Name: Waters of Kapolei

2. Project Address: Corner of Farrington Highway and Kalaaloa Blvd.

3. Project Tax Map Key: 9-1-16: por. 6 & 9

4. Development Type (check all that apply):  Residential  Non-Residential

5A. Residential: No. of Proposed Units \_\_\_\_\_ (provide breakdown below)

_____ Studios	_____ 3 Bedrooms
_____ 1 Bedroom	_____ 4 Bedrooms
_____ 2 Bedrooms	_____ Other

5B. Non-Residential (see back page for category and required quantity):

a. Category(ies)	<u>Commercial</u>	<u>Fast Food</u>	<u>Other-Shower/Lockers</u>
b. Quantity(ies)	<u>6,500 sf</u>	<u>10 emp.</u>	<u>10,000 gpd</u>
c. New Water Meter Size(s)	<u>8' x 2' FM</u>		

6. Sewer Connection Work Desired:

a. Use Existing Lateral.....  (Give length, size, depth, etc.) \_\_\_\_\_

b. Other.....  Connect to existing sewer line in Kapolei Parkway Via offsite sewer line to be constructed under "Waters of Kapolei, Farrington Hwy. Improvements and Offsite Sewer Line"

7. Approximate Date of Sewer Connection: 5/99

8. Existing Structures/Dwellings on Property (provide breakdown below)

Type (i.e. Single Family)	Quantity	Remain	Demolish
None			
_____	_____	_____	_____
_____	_____	_____	_____

9. Remarks: \_\_\_\_\_

10. Information Provided By:

Name: Craig Arakaki Date: 10/12/98

Company: Engineering Concepts, Inc.

Phone: ( 808 ) 591-8820 Ext. \_\_\_\_\_

Mailing Address: 250 Ward Avenue, Suite 206 Hon. HI 96814

Street City, State Zip Code

CATEGORY	REQUIRED QUANTITY	CATEGORY	REQUIRED QUANTITY
Animal Clinic .....	Employees	Meat Processing .....	gpd
Aquarium .....	Employees	Medical Clinic .....	Employees
Auto Repair .....	Employees	Military .....	gpd
Bakery .....	Employees	Milk Processing .....	gpd
Banks .....	Employees	Mortuarles .....	Employees
Bowling Alley .....	Employees	Motel .....	Rooms
Car Dealership .....	Employees	Museum .....	Employees
Car Wash .....	Employees	Newspaper Agencies .....	Employees
Caterers .....	Employees	Noodle Factory .....	Employees
Church .....	Employees	Nursery .....	Employees
Commercial (Misc.) .....	Sq. Ft. of Floor Space	Nursing, Convalescent Home .....	Employees and Beds
Commercial Kennel .....	Employees	Office Building .....	Employees
Convent .....	Sisters	Park w/ comfort sta. only .....	Employees
Day Care, Pre-School .....	Children	Parking Structure .....	Employees
Delicatessen .....	Employees	Personal Services .....	Employees
Dental Clinic .....	Employees	Photo Finishers .....	Employees
Dentist's Office .....	Employees	Photo Processing .....	Employees
District Park .....	Employees	Pineapple Processing .....	gpd
Doctor's Office .....	Employees	Police Station .....	Employees
Dormitory .....	Rooms	Potato Chlp Manufacturing .....	gpd
Drinking Establishment .....	Employees	Poultry Processing .....	gpd
Dry Cleaning .....	gpd	Prison .....	Prisoners
Elementary School .....	Students	Private Clubs .....	Employees
Eye Glass Manufacturing .....	Employees	Residential Care Home .....	Employees and Beds
Fast Foods .....	Employees	Resort Condo .....	Rooms
Fire Station .....	Employees	Restaurant .....	Seats per day
Florist .....	Employees	Retail .....	Sq. Ft. of Retail Fl. Space
General Industry (Misc.) .....	Sq. Ft. of Fl. Space	Rooming House .....	Rooms
Golf Course w/Clubhouse .....	Employees	Schools (other) .....	Students
Government Offices .....	Employees	Service Station .....	Employees
Grocery Store .....	Employees	Shopping Center .....	Sq. Ft. of Retail Fl. Space
Half-way House .....	Employees and Beds	Soy Bean Factory .....	gpd
Health Spa .....	Employees	Sports Arena .....	gpd
High Schools .....	Students	Stadium .....	gpd
Hospital .....	Beds	Sugar Processing .....	gpd
Hostel .....	Rooms	Supermarket .....	Employees
Hotel .....	Rooms	Theater .....	Seats per day
Hotel Development .....	Acres	Tofu Factory .....	gpd
Intermediate Schools .....	Students	Warehouse .....	Employees
Jewelry Manufacturing .....	Employees	YMCA (Lodging) .....	Rooms
Laundromats .....	Machines	Zoo .....	Employees
Library .....	Employees		

\*gpd = gallons per day



Post-It® Fax Note	7671	Date	5/6/05	# of pages	5
To	Tim Hata	From	ENV Miyamoto		
Co./Dept.		Co.			
Phone #		Phone #	692-5758		
Fax #	550-6460	Fax #			

August 27, 2003

03 AUG 29 12:25

Department of Environmental Services  
 City and County of Honolulu  
 1000 Uluohia Street, Suite 308  
 Kapolei, Hawaii 96707

Re: Sewer Line Maintenance Fund Agreement

Gentlemen:


The letter sets forth the terms and conditions under which the Waters of Kapolei, LLC, a Delaware limited liability company ("Owner"), has agreed to establish a maintenance fund for the use and benefit of the Department of Environmental Services of the City and County of Honolulu ("City") for the purpose of funding future maintenance and/or repair or replacement of a sewer line to be dedicated to the City that currently serves the Owner's Hawaiian Waters Adventure Park site. The following is the background for this Agreement:

A. Owner is the owner and operator of the Hawaiian Waters Adventure Park (the "Park") located at Kapolei, Oahu, Hawaii. Under the terms of Owner's lease agreement with the Campbell Estate, the fee simple owner of the Park site, the Owner was required to construct at its expense a sewer pipeline that serves the Park site. In satisfaction of the lease agreement provisions, the Owner constructed a sewer pipeline of approximately one-half mile in length that connects to the Park site and runs under Farrington Highway and the H-1 freeway (the "Pipeline").

B. The Pipeline was not constructed to City standards, in that the line was core drilled and has slight undulations (the "Pipeline Defects"). The City, however, has agreed to accept a dedication of the Pipeline and thereby assume ownership and the responsibility for the future maintenance and/or repair or replacement of the Pipeline if certain conditions are met. So long as the Park remains in operation, it is anticipated that the required routine maintenance on the Pipeline will be minimal. However, the City has expressed concerns about the future routine maintenance requirements of the Pipeline (particularly the need to flush the Pipeline from time to time and the costs associated therewith) if the Park is no longer in operation.

C. Owner has proposed the establishment of a maintenance fund at Owner's cost to provide a source of funding the future costs that may be incurred by the City to flush the Pipeline from time to time when such flushing is warranted, or to repair and/or replace any section of the Pipeline that may be found to be inadequate for its intended purposes. The City has agreed to accept this proposal on the terms and conditions more particularly set forth below.

400 Farrington Hwy. • Kapolei • Hawaii 96707



Post-It® Fax Note	7671	Date	5/9/05	# of pages	5
To	Colette Sakoda	From	TIM HATA		
Co./Dept.	Environmental Planning	Co.	DPP		
Phone #	732-8602	Phone #	527-6070		
Fax #	538-3168	Fax #	550-6460		

Department of Environmental Services  
May 31, 2003  
Page 2

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Owner and the City do hereby agree as follows:

1. **Establishment of Maintenance Fund.** Within thirty (30) days of the "effective date" of this Agreement (as defined below), Owner shall purchase a THIRTY-FIVE THOUSAND AND NO/100 DOLLARS (\$35,000.00) federally-insured certificate of deposit (or equivalent instrument) from a financial institution of Owner's choice with a maturity date that is fifteen (15) years from the date of issuance and bearing interest at an annual rate that is comparable to other certificates of deposit of similar amount and duration as reasonably determined by Owner (the "Initial Maintenance Fund Deposit") (the Initial Maintenance Fund Deposit together with all additions thereto including interest accruing thereon from time to time being hereinafter referred to as the "Maintenance Fund"). The Maintenance Fund shall be established in the name of the City and all interest accruing thereunder from time to time shall be payable to the City.

2. **Maintenance Fund Deposit Interest Rate.** While as of the date hereof, the rate of interest on fifteen (15) year federally-insured certificates of deposit on amounts comparable to the Initial Maintenance Fund Deposit is approximately three percent (3.00%) per annum, the actual rate of interest payable on the Initial Maintenance Fund Deposit will depend on a number of factors including market conditions, the date of establishment, the issuing financial institution, etc. Therefore, the City acknowledges that Owner has made no representations, warranties, or guarantees as to the minimum rate of interest that will be payable on the Initial Maintenance Fund Deposit and that the actual rate of interest payable on the Initial Maintenance Fund Deposit may be greater than or less than three percent (3%) per annum.

3. **Maintenance Fund Purpose and Control.** It is intended by the parties hereto that for a period of fifteen (15) years from the date that it is established, no withdrawals from the Maintenance Fund shall be made and all income therefrom shall be reinvested in the Maintenance Fund. Following such fifteen (15) year period, the parties anticipate that the annual income from the Maintenance Fund will be sufficient to cover the annual "Authorized Expenses" (as defined below) for the foreseeable future. Notwithstanding the foregoing, the Maintenance Fund shall remain under the control of the City during the term of this Agreement and thereafter, and the City shall be free to terminate or make such withdrawals or additions to the Maintenance Fund from time to time as the City shall determine in the exercise of its discretion; provided, however, that no such actions by the City shall expand the Owner's obligation to fund the Maintenance Fund beyond the Initial Maintenance Fund Deposit referenced in Paragraph 1 above, or to reimburse the City for the "Authorized Expenses" as provided in Paragraph 5 below beyond the term of this Agreement.

4. **Acceptance of Pipeline Dedication.** In consideration of the foregoing agreements, the City agrees to accept the dedication of the Pipeline without further condition (other than the execution and delivery of the grants of easement and any other customary instruments of conveyance necessary to transfer title to the Pipeline to the City). The City and Owner agree to cooperate with each other and to proceed diligently to complete the dedication process.

Department of Environmental Services  
May 31, 2003  
Page 3

5. **Pipeline Maintenance and Expenses.** Following the dedication of the Pipeline to the City, the City shall be solely responsible for performing all maintenance and repairs on the Pipeline, provided however, that during the term of this Agreement Owner agrees to reimburse the City for all "Authorized Expenses" (as hereinafter defined) no later than thirty (30) days following the receipt by Owner of a written demand therefore (the "Reimbursement Deadline"), and if Owner fails to make such payment by the Reimbursement Deadline, then such amount owing by Owner shall thereafter accrue interest until paid at the annual rate then being paid on funds on deposit in the Maintenance Fund. For the purposes of this Agreement, the term "Authorized Expenses" shall be limited to: i) all reasonable expenses incurred by the City to flush the Pipeline; and ii) all reasonable expenses incurred by the City to repair and/or replace any section of the Pipeline that fails to function as a direct result of the Pipeline Defects and where the function of such section cannot otherwise be restored by flushing the Pipeline.

6. **Agreement Term.** This Agreement shall be effective as of the date that the City executes this Agreement (the "effective date") and shall end on the fifteenth (15th) anniversary of the effective date unless sooner terminated by the mutual agreement of the parties hereto. At the end of the term (or sooner termination) of this Agreement, Owner shall be relieved of any further obligations hereunder.

7. **Assignment.** Owner may assign its obligations under this Agreement with the prior written consent of the City, which consent shall not be unreasonably withheld. Upon the City's consent to an assignment of Owner's obligations under this Agreement, Owner shall be released of any further obligations hereunder.

8. **Notice.** Any notice, demand, election or communication required, permitted, or desired to be given hereunder shall be in writing and deemed effectively given when personally delivered, or when actually received by facsimile transmission, or when actually received as prepaid registered certified mail, return receipt requested, and addressed as follows (or to any other address which either party may designate to the other by written notice from time to time, given in the manner required hereunder):

If to Owner: Hawaiian Waters Adventure Park  
400 Farrington Hwy.  
Kapolei, Hawaii 96707

If to the City: Department of Environmental Services  
1000 Ukuohia Street, Suite 308  
Kapolei, Hawaii 96707  
Attn: Director

9. **No Joint Venture.** The execution of this Agreement is not intended to create a partnership or joint venture between Owner and City.

10. **Amendment.** No amendment or waiver of any provision of this Agreement shall be effective unless it is mutually agreed to in writing by the parties.



Department of Environmental Services  
May 31, 2003  
Page 4

11. **Litigation Expenses.** If either party shall file an action against the other to enforce any provision of this Agreement, then the prevailing party in such action shall be entitled to, and the non-prevailing party shall pay, all reasonable costs and expenses (including without limitation, reasonable attorneys' fees and costs) incurred by the prevailing party in such action).

12. **Binding Effect.** Except as otherwise expressly stated herein, this Agreement shall be binding upon and inure to the benefit of the parties, and their legal representatives, successors and assigns.

13. **Complete Agreement.** This Agreement is intended by the parties as a final expression of their agreement and cancels and supersedes each and every other promise, representation or negotiation between the parties in connection with the subject matter hereof.

14. **No Waiver.** No waiver of any of the provisions of this Agreement shall be deemed, or shall constitute, a waiver of any other provision. No waiver shall be binding unless executed in writing by the party making the waiver.

15. **Governing Law.** This Agreement shall be governed by and construed in accordance with the laws of the State of Hawaii.

16. **Time.** Both parties understand that time is strictly of the essence of this Agreement.


17. **Severability.** Each provision of this Agreement shall be interpreted in a manner as to be valid and enforceable under applicable law. If any provision of this Agreement should be held to be invalid or unenforceable, such invalidity shall not affect the validity or enforceability of the remaining provisions of this Agreement.

Department of Environmental Services  
May 31, 2003  
Page 5

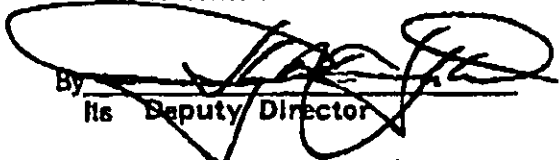
Please confirm your acceptance of the terms of this Agreement by executing this letter in the space provided below.

Very truly yours,

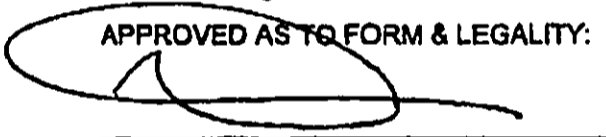
FOR WATERS OF KAPOLEI, LLC

By   
Jerry Pujillo, General Manager  
Hawaiian Waters Adventure Park  
Agreed and accepted this 27<sup>th</sup> day of August, 2003

Department of Environmental Services, City and  
County of Honolulu

By   
Its Deputy Director

APPROVED AS TO FORM & LEGALITY:

  
MALE P. CHEN