



UNIVERSITY  
of HAWAI'I  
SYSTEM

FILE COPY

MAY 23 2015

Office of Capital Improvements

Jessica Wooley, Director  
State of Hawai'i  
Office of Environmental Quality Control  
235 South Beretania Street, Room 702  
Honolulu, Hawaii 96813

RECEIVED  
MAY 13 P 1:18  
28, 2015  
OFFICE OF ENVIRONMENTAL  
QUALITY CONTROL

Subject: Environmental Assessment for the University of Hawai'i  
School of Ocean and Earth Science and Technology and Marine  
Education Training Center Facilities at Sand Island  
Tax Map Keys (TMKs): (1) 1-5-041: portions of 006 and 334  
Honolulu, O'ahu, Hawai'i

Dear Director Wooley:

The University of Hawaii (UH) has prepared the attached Draft Environmental Assessment (DEA) for the subject project and anticipates a Finding of No Significant Impact. The DEA has been prepared pursuant to Chapter 343, Hawaii Revised Statutes and Chapter 11-200, Hawaii Administrative Rules. Please publish notice of this DEA in the next issue of OEQC's *The Environmental Notice*.

We have enclosed one (1) each the following items:

- Hardcopy of the OEQC publication form and DEA; and
- CD including the DEA and OEQC publication form in .pdf format.

Please contact our consultant, Mr. Earl Matsukawa at (808) 946-2277 if you have any questions.

Sincerely,

Maynard Young  
Manager, Facilities Planning and Design

c: Earl Matsukawa

1960 East West Road, Biomedical Sciences B-102  
Honolulu, Hawai'i 96822  
Telephone: (808) 956-7935  
Fax: (808) 956-3175

An Equal Opportunity/Affirmative Action Institution

**AGENCY ACTIONS**  
**SECTION 343-5(B), HRS**  
**PUBLICATION FORM (FEBRUARY 2013 REVISION)**

**Project Name:** *UH School of Ocean and Earth Science and Technology and Marine Education Training Center Facilities at Sand Island*  
**Island:** O'ahu  
**District:** Honolulu  
**TMK:** (1) 1-5-041: portions of 006 and 334

**Permits:**

**Proposing/Determination Agency:**

University of Hawai'i  
Maynard G.P. Young  
Manager, Facilities Planning and Design  
Office of Capital Improvements  
1960 East-West Road, Biomedical Sciences, B-102  
Honolulu, Hawaii 96822  
T 808.956.4071 / F 808.956.3175  
Email: [maynardy@hawaii.edu](mailto:maynardy@hawaii.edu)

**Consultant:**

Wilson Okamoto Corporation  
Earl Matskawa, Vice President & Director  
1907 South Beretania Street, Suite 400  
Honolulu, Hawaii 96826  
T (808) 946-2277 / F (808) 946-2253  
Email: [ematsukawa@wilsonokamoto.com](mailto:ematsukawa@wilsonokamoto.com)

**Status (check one only):**

DEA-AFNSI

Submit the proposing agency notice of determination/transmittal on agency letterhead, a hard copy of DEA, a completed OEQC publication form, along with an electronic word processing summary and a PDF copy (you may send both summary and PDF to [oeqchawaii@doh.hawaii.gov](mailto:oeqchawaii@doh.hawaii.gov)); a 30-day comment period ensues upon publication in the periodic bulletin.

**Summary** (Provide proposed action and purpose/need in less than 200 words. Please keep the summary brief and on this one page):

Due to the closure of the UH Marine Center at the Pier 45 Snug Harbor Facility, The University of Hawai'i (UH) School of Ocean and Earth Science and Technology (SOEST) will divide and relocate its small- and large-boat operations, respectively. SOEST's large-boat operations will be moved to a new facility at Pier 35, while its small boat operations will be moved to the proposed SOEST and Marine Education Training Center (METC) Facilities at Sand Island.

Proposed project improvements include constructing a paved, fenced and lighted laydown/storage area and installing a new larger floating dock to replace the existing floating dock fronting the METC (see Figure 4).

In the first phase, approximately one-half of the 4.6 acre vacant lot will be developed for the laydown/storage area. Following construction, SOEST proposes to relocate a number of storage containers from the Pier 45 Snug Harbor facility to the laydown area, and erect tents and/or prefabricated structures to house its collection of geologic samples. In addition, the laydown area will be used to store SOEST's small vessels and trailers and for parking by SOEST personnel and visitors.

The proposed replacement floating dock will be used jointly by SOEST, the UH Sailing Team, the UH Student Recreation Service, and the HCC METC.

In the future, SOEST plans to expand the laydown storage area over the remainder of the vacant lot.

# University of Hawai'i

School of Ocean and Earth Science and Technology  
Marine Education Training Center Facilities at Sand Island

## Draft Environmental Assessment



May 2015

Prepared For



University of Hawai'i  
Office of Capital Improvements

Prepared By



Wilson Okamoto Corporation  
Engineers & Planners  
1907 South Beretania Street, Suite 400  
Honolulu, Hawaii 96826







UNIVERSITY  
of HAWAII®  
SYSTEM

Office of Capital Improvements

April 28, 2015

Jessica Wooley, Director  
State of Hawai'i  
Office of Environmental Quality Control  
235 South Beretania Street, Room 702  
Honolulu, Hawaii 96813

Subject: Environmental Assessment for the University of Hawai'i  
School of Ocean and Earth Science and Technology and Marine  
Education Training Center Facilities at Sand Island  
Tax Map Keys (TMKs): (1) 1-5-041: portions of 006 and 334  
Honolulu, O'ahu, Hawai'i

Dear Director Wooley:

The University of Hawaii (UH) has prepared the attached Draft Environmental Assessment (DEA) for the subject project and anticipates a Finding of No Significant Impact. The DEA has been prepared pursuant to Chapter 343, Hawaii Revised Statutes and Chapter 11-200, Hawaii Administrative Rules. Please publish notice of this DEA in the next issue of OEQC's *The Environmental Notice*.

We have enclosed one (1) each the following items:

- Hardcopy of the OEQC publication form and DEA; and
- CD including the DEA and OEQC publication form in .pdf format.

Please contact our consultant, Mr. Earl Matsukawa at (808) 946-2277 if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Maynard Young".

Maynard Young  
Manager, Facilities Planning and Design

c: Earl Matsukawa

1960 East West Road, Biomedical Sciences B-102  
Honolulu, Hawai'i 96822  
Telephone: (808) 956-7935  
Fax: (808) 956-3175

An Equal Opportunity/Affirmative Action Institution



**TABLE OF CONTENTS**

	<b><u>Page</u></b>
<b>PREFACE</b> .....	P-1
<b>SUMMARY</b> .....	S-1
<b>1. INTRODUCTION</b> .....	1-1
1.1 Background Information .....	1-1
1.1.1 Existing Uses .....	1-1
1.1.2 Surrounding Uses .....	1-1
1.1.2 Land Ownership .....	1-7
<b>2. PROJECT DESCRIPTION</b> .....	2-1
2.1 Purpose and Need .....	2-1
2.2 Proposed Project .....	2-1
2.3 Development Schedule .....	2-2
2.4 Project Costs .....	2-2
<b>3. DESCRIPTION OF EXISTING ENVIRONMENT, IMPACTS, AND MITIGATION MEASURES</b> .....	3-1
3.1 Climate .....	3-1
3.2 Physiography .....	3-2
3.2.1 Geology and Topography .....	3-2
3.2.2 Soils .....	3-2
3.3 Hydrology .....	3-3
3.3.1 Surface and Coastal Waters .....	3-3
3.3.2 Groundwater .....	3-6
3.4 Natural Hazards .....	3-6
3.4.1 Flood and Tsunami Hazard .....	3-6
3.4.2 Hurricane and Wind Hazard .....	3-7
3.4.2 Seismic Hazard .....	3-7
3.5 Natural Environment .....	3-7
3.5.1 Flora and Fauna .....	3-7
3.6 Historic and Archaeological Resources .....	3-11
3.7 Cultural Resources and Practices .....	3-15
3.8 Air Quality .....	3-15
3.9 Hazardous Materials .....	3-17
3.10 Traffic .....	3-19
3.11 Visual Resources .....	3-22
3.12 Socio-Economic Characteristics .....	3-23
3.13 Public Services and Facilities .....	3-25
3.13.1 Police, Fire, and Medical Services .....	3-25
3.13.2 Education .....	3-26
3.13.3 Recreational Facilities .....	3-26
3.13.4 Solid Waste Collection and Disposal .....	3-27
3.14 Infrastructure and Utilities .....	3-27
3.14.1 Water System .....	3-27
3.14.2 Wastewater System .....	3-28

**TABLE OF CONTENTS (Continued)**

	<b><u>Page</u></b>
3.14.3 Drainage System .....	3-28
3.14.4 Electrical and Communications Systems .....	3-29
<b>4. RELATIONSHIP TO PLANS, POLICIES, AND CONTROLS .....</b>	<b>4-1</b>
4.1 State Land Use Plans and Policies.....	4-1
4.1.1 Hawai'i State Plan.....	4-1
4.1.2 State Land Use District .....	4-3
4.1.3 Hawai'i Coastal Zone Management Program .....	4-4
4.2 City and County of Honolulu Land Use Plans and Policies .....	4-12
4.2.1 City and County of Honolulu General Plan .....	4-12
4.2.2 Primary Urban Center Development Plan.....	4-13
4.2.3 City and County of Honolulu Zoning .....	4-13
4.2.4 City and County of Honolulu Special Management Area .....	4-13
4.3 Permits and Approvals.....	4-14
<b>5. ALTERNATIVES.....</b>	<b>5-1</b>
5.1 No Action Alternative .....	5-1
5.2 Full Relocation of UHMC to Sand Island .....	5-1
5.3 Alternative Location in Honolulu Harbor .....	5-1
5.4 Alternative Location at other State Harbors.....	5-2
<b>6. ANTICIPATED DETERMINATION OF FONSI .....</b>	<b>6-1</b>
<b>7. CONSULTATION.....</b>	<b>7-1</b>
7.1 Pre-Assessment Consultation .....	7-1
<b>8. REFERENCES.....</b>	<b>8-1</b>



**LIST OF FIGURES**

	<b><u>Page</u></b>
Figure 1-1	Location Map .....1-2
Figure 1-2	TMK Map .....1-3
Figure 1-3	Parcel & Easement Map .....1-4
Figure 1-4	Existing Users .....1-5
Figure 1-5	Surrounding Uses .....1-6
Figure 2-1	Project Location / Relocation of UHMC .....2-3
Figure 2-2	Project Site Plan .....2-4
Figure 3-1	Soils Map .....3-4
Figure 3-2	Flood Insurance Rate Map .....3-8
Figure 3-3	1913 Monsarrat Map .....3-13
Figure 3-4	Location of Test Excavations .....3-14
Figure 3-5	Existing Traffic Conditions .....3-21
Figure 4-1	City and County of Honolulu Zoning Map .....4-15
Figure 4-1	Special Management Area Map .....4-16

**LIST OF TABLES**

	<b><u>Page</u></b>
Table 3-1	Demographic Characteristics .....3-24

**LIST OF APPENDICES**

Appendix A	Water Quality and Biological Surveys for the School of Ocean and Earth Science and Technology (SOEST), Sand Island, O’ahu, Hawai’i. AECOS, February 11, 2015.
Appendix B	Archaeological Assessment, for the School of Ocean and Earth Science and Technology (SOEST), Sand Island, O’ahu, Hawai’i. TMKs: [1] 1-5-041:334 por. and 006 por. Cultural Surveys Hawai’i, Inc., January 2015.
Appendix C	Phase I Environmental Site Assessment, School of Ocean and Earth Science and Technology Facility (SOEST) and Marine Education Training Center (METC) Property. Honolulu, Oahu, Hawai’i TMK (1)-5-041: Portion of Parcels 006, 130, 034. EnviroServices & Training Center LLC, February 2015.
Appendix D	Traffic Impact Report for the University of Hawai’i SOEST and METC Facility at Sand Island. Wilson Okamoto Corporation, January 2015.
Appendix E	Pre-Assessment Consultation Comment and Response Letters

(This page intentionally left blank)

## **PREFACE**

This Draft Environmental Assessment (EA) / Anticipated Finding of No Significant Impact (FONSI) has been prepared pursuant to Chapter 343, Hawai'i Revised Statutes (HRS), and Title 11, Chapter 200, Hawai'i Administrative Rules (HAR), Department of Health, State of Hawai'i.

Due to the closure of the UH Marine Center at the Pier 45 Snug Harbor Facility, the University of Hawai'i (UH) School of Ocean and Earth Science and Technology (SOEST) will divide and relocate its small- and large-boat operations, respectively. SOEST's large-boat operations will be moved to a new facility at Pier 35, while its small boat operations will be moved to the proposed Sand Island Small-Boat Facility & Floating Dock adjacent to the Honolulu Community College's (HCC) Marine Education Training Center (METC) at Sand Island.

This EA is required because the proposed project is an "agency action" involving the use of state lands and funds. Therefore, the accepting authority for the Final EA / FONSI is the Governor of Hawaii.

Studies prepared in conjunction with this EA include an Archaeological Assessment Report, a Traffic Impact Report, a Terrestrial and Marine Biological Survey, and a Phase I Environmental Site Assessment. These studies are included herein as appendices.

(This page intentionally left blank)

## SUMMARY

<b>Proposing Agency:</b>	University of Hawai'i
<b>Accepting Authority:</b>	Governor, State of Hawaii
<b>Location:</b>	Honolulu, O'ahu, Hawai'i
<b>Tax Map Keys (TMKs):</b>	(1) 1-5-041: portions of 006 and 334
<b>Recorded Fee Owner:</b>	State of Hawai'i, Department of Land and Natural Resources
<b>Existing Use:</b>	Marine Educational Training Center (METC), an educational facility operated by Honolulu Community College (HCC) that provides training programs for the repair and maintenance of marine vessels and engines. Current users also include the UH Sailing Team, UH Student Recreation Services, and the Polynesian Voyaging Society. The grassy space adjacent to the METC is unused and vacant. A 24" Army sewer line runs under the project site from the Fort Shafter Military Reservation,
<b>State Land Use Classification:</b>	Urban
<b>Development Plan Designation:</b>	Park and Public Facility
<b>County Zoning Designation:</b>	General Preservation (P-2)
<b>Proposed Action:</b>	Proposed project improvements include constructing a paved, fenced and lighted laydown/storage area and installing a new larger floating dock to replace the existing floating dock fronting the METC.

In the first phase, approximately one-half of the 4.6 acre vacant lot will be developed for the laydown/storage area. Following construction, SOEST proposes to relocate a number of storage containers from the Pier 45 Snug Harbor facility at the former Kapālama Military Reservation (KMR) to the laydown area, and erect tents and/or prefabricated structures to house its collection of geologic samples. In addition, the laydown area will be used to store SOEST's small vessels and trailers and for parking by SOEST personnel and visitors.

The proposed replacement floating dock will be used jointly by SOEST, the UH Sailing Team, the UH Student Recreation Service, and the HCC METC. SOEST will access the floating



dock through the existing METC facility. This will require some adjustments in uses on the METC site to provide space for moving trailered SOEST vessels and equipment.

In the future, SOEST plans to expand the laydown storage area over the remainder of the vacant lot.

**Impacts:**

Potential soil erosion and associated water quality impacts will be mitigated by applying required best management practices to control soil erosion and siltation. No significant impacts on flora and fauna are anticipated as a result of construction or operation of the project. No historic properties will be affected by the proposed project. Air quality, noise and hazardous materials impacts will be mitigated by compliance with applicable Department of Health rules. Traffic operations in the vicinity of the project site are expected to remain similar to conditions without the proposed project. As such, the proposed project is not expected to have a significant impact on the surrounding roadways. No significant impacts regarding water, wastewater, drainage, electrical and communications systems are anticipated. Further consultation and coordination with applicable agencies will assure that construction activities can avoid impacts to existing utility lines.

**Anticipated**

**Determination:**

Finding of No Significant Impact (FONSI)

**Parties Consulted**

**During Pre-Assessment:**

**Federal Agencies**

National Oceanic and Atmospheric Administration, Pacific Islands Regional Office

U.S. Army Corps of Engineers

U.S. Department of the Interior, Fish and Wildlife Service

**State Legislative Branch**

Senator Donna Mercado Kim

Senator Suzanne Chun Oakland

Representative Karl Rhoads

Representative John Mizuno

**State Agencies**

Department of Accounting and General Services

Department of Business, Economic Development and Tourism

Department of Business, Economic Development and Tourism, Energy Office

Department of Business, Economic Development and Tourism, Land Use Commission

Department of Business, Economic Development and Tourism,  
Office of Planning  
Department of Defense  
Department of Defense, State Civil Defense  
Department of Health  
Department of Health, Clean Water Branch  
Department of Health, Environmental Management Division  
Department of Health, Environmental Planning Office  
Department of Land and Natural Resources  
Department of Land and Natural Resources, Historic  
Preservation Division  
Department of Transportation  
Office of Environmental Quality Control  
Office of Hawaiian Affairs  
University of Hawai'i at Mānoa Environmental Center

**City Council**

Councilmember Carol Fukunaga  
Councilmember Joey Manahan

**City and County of Honolulu Agencies**

Board of Water Supply  
Department of Community Services  
Department of Design and Construction  
Department of Environmental Services  
Department of Facility Maintenance  
Department of Parks and Recreation  
Department of Planning and Permitting  
Department of Transportation Services  
Honolulu Fire Department  
Honolulu Police Department

**Utility Companies**

Verizon Hawai'i  
Hawai'i Gas  
Hawaiian Electric Company  
Oceanic Cable

**Other Interested Parties and Individuals**

Kalihi-Palama Neighborhood Board No. 15

(This page intentionally left blank)

## **1. INTRODUCTION**

### **1.1 Background Information**

The project site is located in the Honolulu District of O‘ahu, Hawai‘i, and is situated on the northwest corner of Sand Island. The site is identified by Tax Map Key (TMK) 1-5-41: portions of 6 and 334 and is bounded by Sand Island Parkway, Sand Island State Recreation Area and the shoreline fronting the Kalihi Channel of Honolulu Harbor (see Figure 1-1 and 1-2). The project site is comprised of an approximately 4.6 acre vacant lot, the existing METC, proposed easements over an existing roadway and a proposed submerged land easement along the METC waterfront (see Figure 1-3)

#### **1.1.1 Existing Uses**

The site currently houses the Marine Educational Training Center (METC), an educational facility operated by Honolulu Community College (HCC) that provides training programs for the repair and maintenance of marine vessels and engines. Other site users include the UH Sailing Team, UH Student Recreation Services, and the Polynesian Voyaging Society (PVS) (See Figure 1-4). The remainder of the subject site, encompassing a grassy space adjacent to the METC, is unused and vacant. A 24” Army sewer line from the Fort Shafter Military Reservation runs under the north eastern portion of the site (also shown in Figure 1-4).

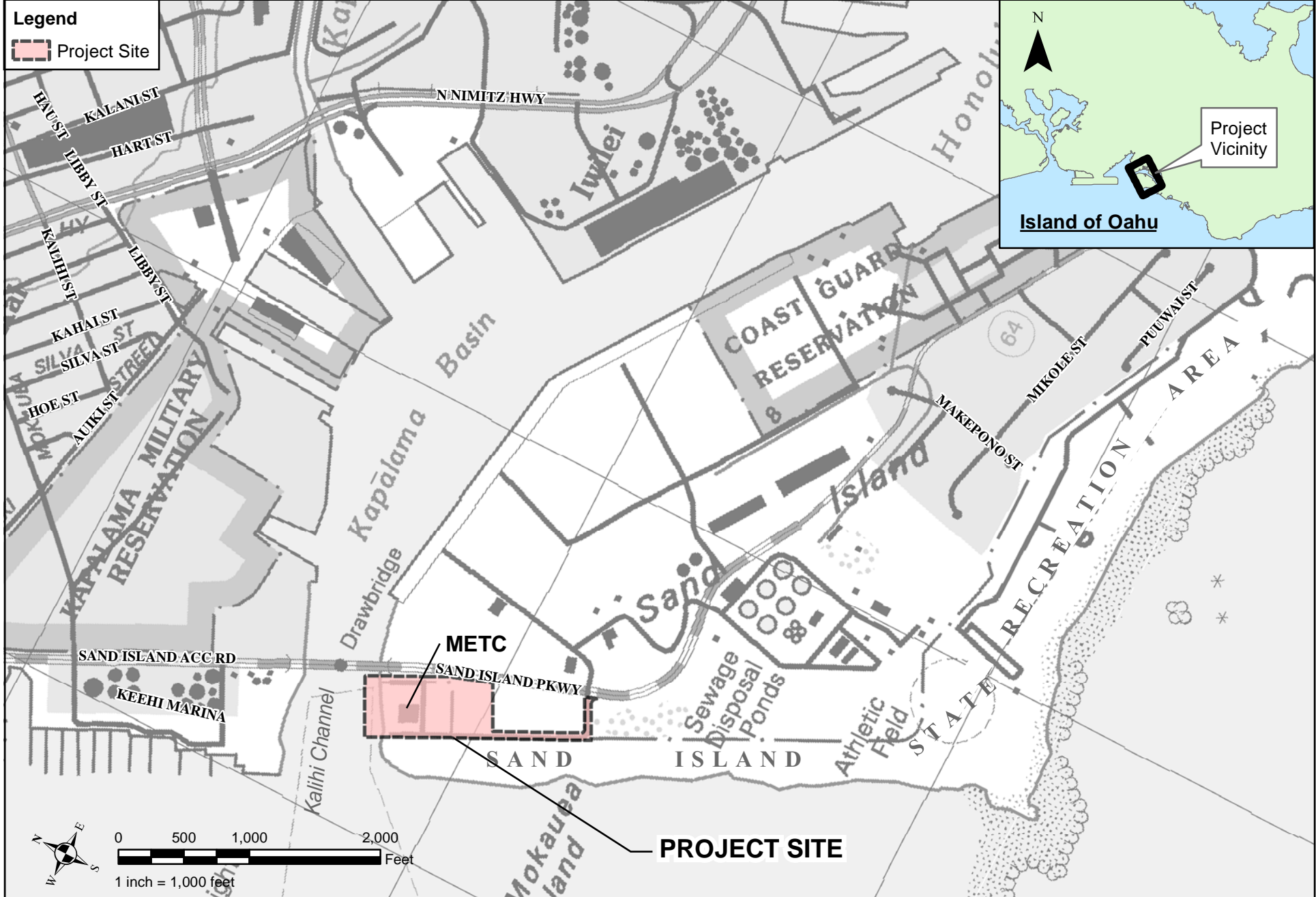
The HCC METC consists of a two-story facility that functions primarily as a maintenance and repair training facility for small watercraft. Housed within are shops and laboratories for work on wood, metal, and fiberglass hulls, sand blasting, painting, mast and rigging, and electrical/electronics.

#### **1.1.2 Surrounding Uses**

Sand Island is a man-made island created from the deposition of material during the dredging of Honolulu Harbor and Ke‘ehi Lagoon. It is bordered on the east by the main entrance channel for Honolulu Harbor (Fort Armstrong Channel), on the west by the Kalihi Channel, and on the north by the Kapālama Basin. The island is home to a variety of land uses including, but not limited to the Sand Island State Recreation Area, private shipping container handling facilities that occupy State-owned lands, the U.S. Coast Guard’s Sand Island Facility, and the City and County of Honolulu’s Sand Island Wastewater Treatment Plant (see Figure 1-5). An industrial use area situated on the southern portion of the island is comprised of various individual businesses/tenants.

In addition, three underground petroleum pipelines cross the project site parallel to Sand Island Parkway. The Hawai‘i Fuel Facility Corporation (HFFC) owns a 12- and 18-inch diameter pipeline, while the Hawaiian Independent Refinery, Inc. (HIRI) owns a 12-inch diameter pipeline (see Figure 1-4).

The near shore waters around Sand Island accommodate a range of water-oriented recreational opportunities. Construction of the presently unused seaplane runways created the sheltered waters of Ke‘ehi Lagoon, which have become a popular venue for a number of water activities including boating, sailing, water skiing, canoe racing, and fishing (see Figure 1-5).



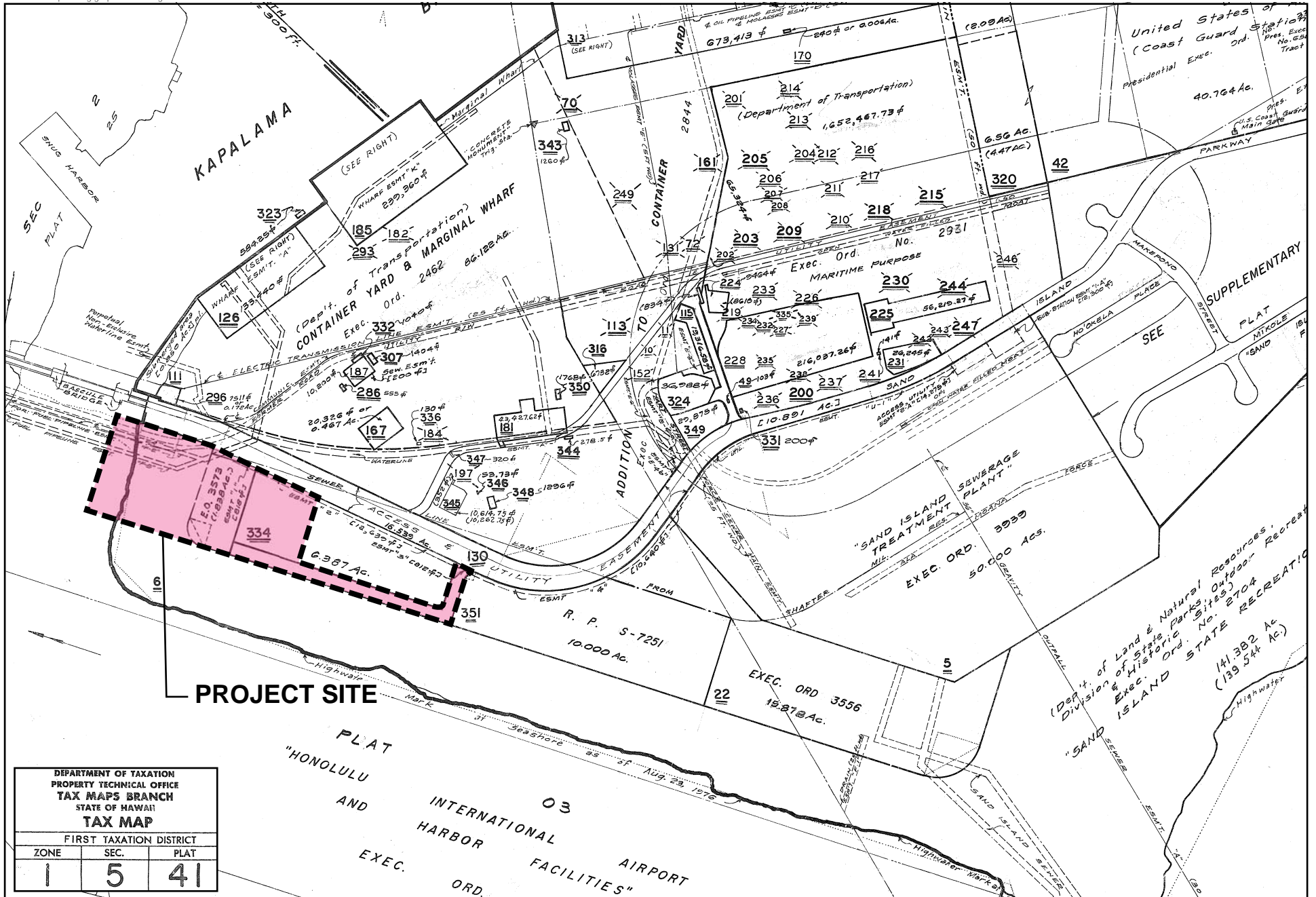
**SOEST AND METC FACILITIES AT SAND ISLAND**

**LOCATION MAP**

FIGURE

1-1





DEPARTMENT OF TAXATION  
PROPERTY TECHNICAL OFFICE  
TAX MAPS BRANCH  
STATE OF HAWAII  
**TAX MAP**

FIRST TAXATION DISTRICT		
ZONE	SEC.	PLAT
1	5	41

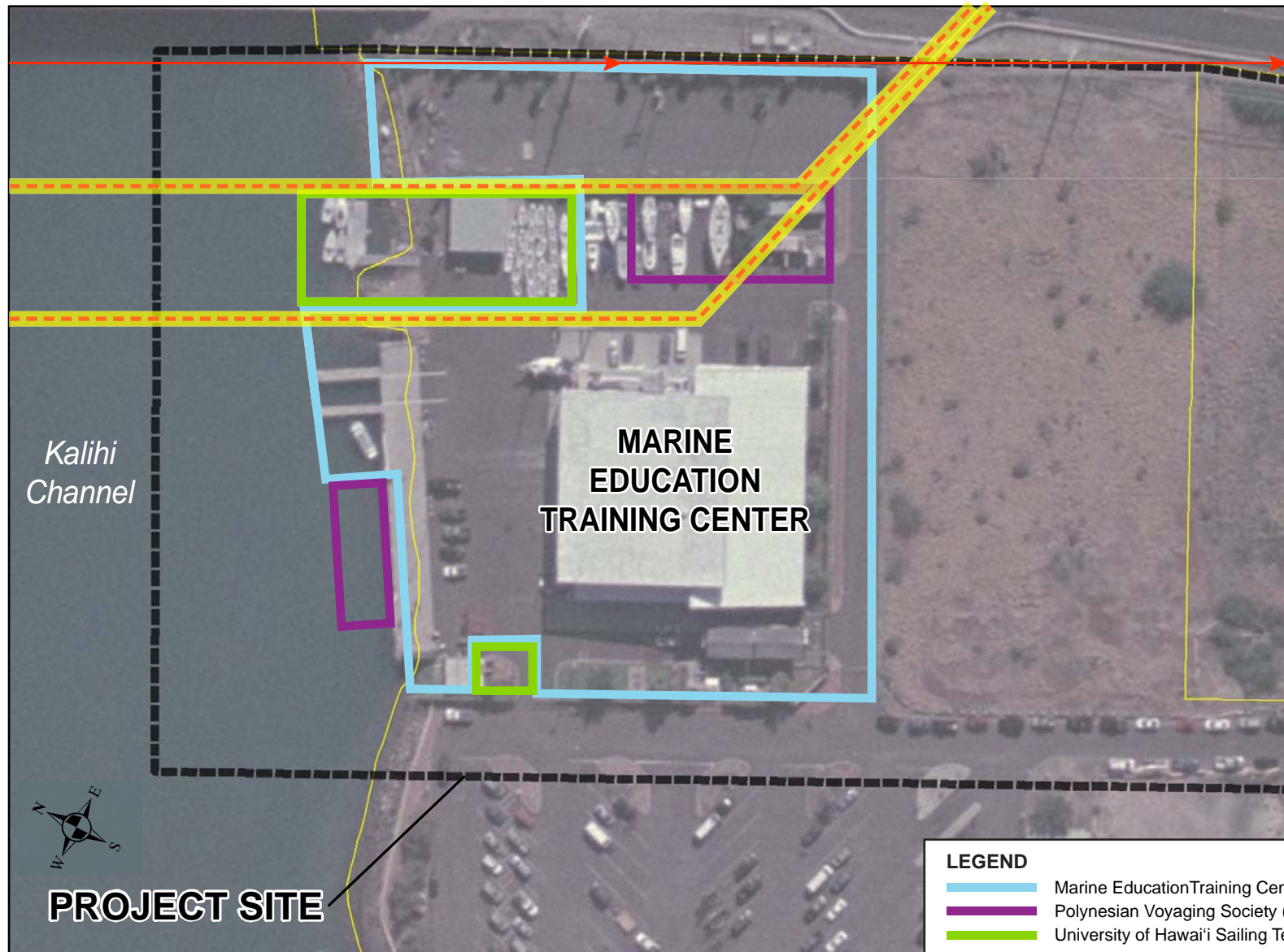
**SOEST AND METC FACILITIES AT SAND ISLAND**

**TAX MAP KEY**

FIGURE

1-2





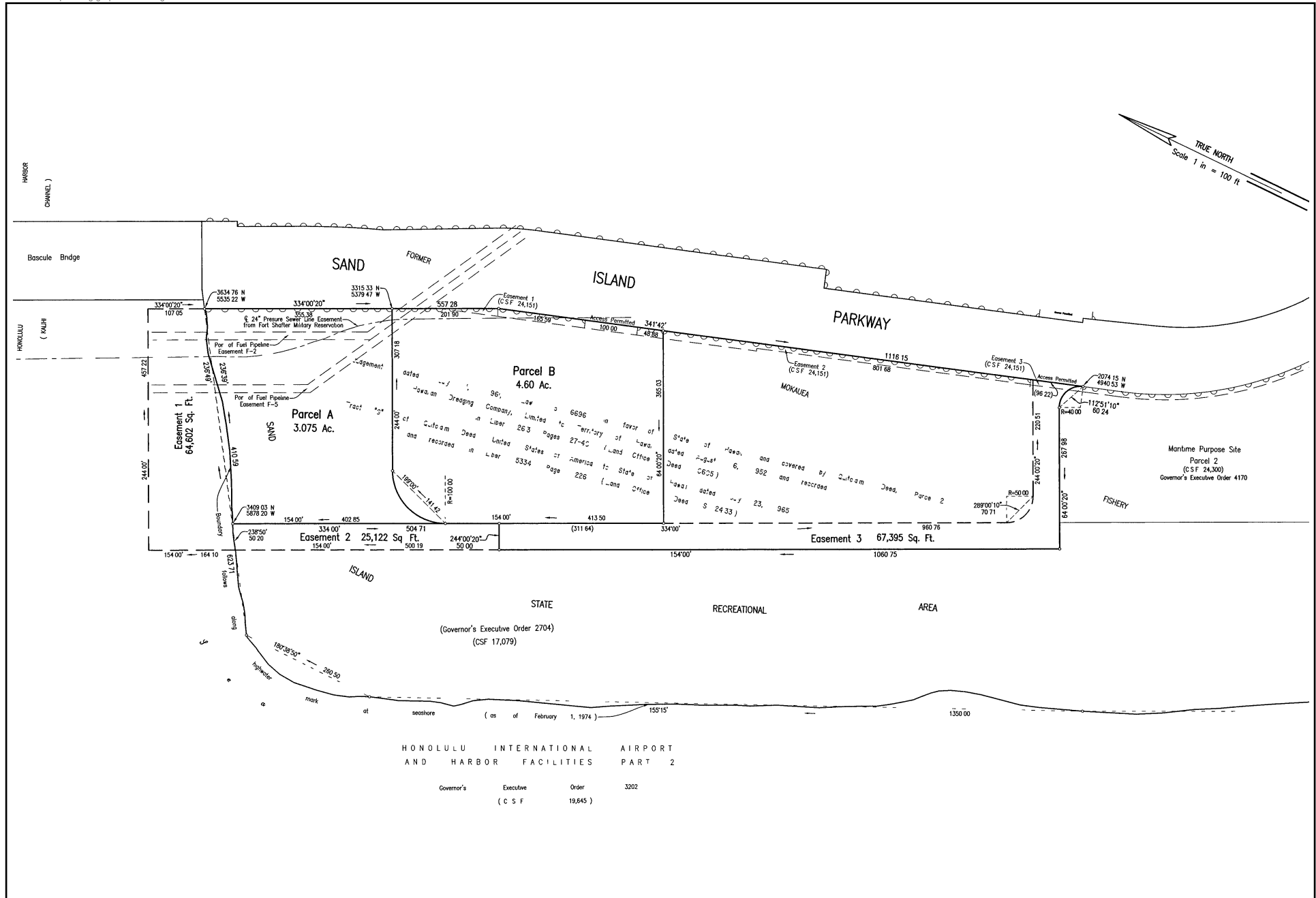
NOT TO SCALE

SOEST AND METC FACILITIES AT SAND ISLAND

EXISTING USERS

FIGURE

1-4



**SOEST AND METC FACILITIES AT SAND ISLAND**

**PARCEL AND EASEMENT MAP**

**FIGURE**  
1-3







**SOEST AND METC FACILITIES AT SAND ISLAND**

**SURROUNDING USES**

FIGURE

1-5

### **1.1.3 Land Ownership**

The project site will be subdivided from lands administered by the State of Hawai'i Department of Land and Natural Resources and leased to the University of Hawai'i. In addition, an easement will be sought from the DOT Harbors Division for an area extending approximately 100 feet from the shoreline fronting the existing METC along Kalihi Channel to accommodate the various uses associated with the proposed new floating dock (see Figure 1-3).



(This page intentionally left blank)

## **2. PROJECT DESCRIPTION**

### **2.1 PURPOSE AND NEED**

Due to the closure of the University of Hawai'i's (UH) Marine Center (UHMC) at the Pier 45 SNUG Harbor Facility within the former Kapālama Military Reservation (KMR), the UH School of Ocean and Earth Science and Technology (SOEST) is being forced to split and relocate and its small- and large-boat operations. SOEST's large-boat operations will be moved to a new facility at Pier 34/35, while its small boat operations will be moved to the proposed UH SOEST and METC Facilities at Sand Island (see Figure 2-1).

SNUG Harbor's closure and the relocation of the UHMC is outlined and identified in the *Honolulu Waterfront Master Plan (HWMP) Final Report* (Department of Business, Economic Development & Tourism [DBEDT] 1989), the subsequent *O'ahu Commercial Harbors 2020 Master Plan* (DOT Harbors 1997), and House Concurrent Resolution 266 (Hawai'i 2006). Since 1989, efforts have been ongoing to identify a suitable relocation site. In 1994, the State of Hawaii DBEDT proposed the relocation of UHMC to Pier 38, as described in the *Pier 38 Master Plan Final Environmental Assessment* (DBEDT 1994); however, subsequent State planning efforts concluded that Pier 38 would be better suited for the Fishing Village (DOT Harbors 1997). The need to relocate the UHMC from the former KMR to accommodate expanded cargo handling capacity and capability of Honolulu Harbor was underscored when 2006 House Concurrent Resolution 266 requested UH collaborate with DOT to pursue, on a priority basis, the relocation of the UHMC. In 2007, Governor's Executive Order No. 4206 transferred control of Snug Harbor and the surrounding areas currently leased to UH for its UHMC, to DOT Harbors for addition to Honolulu Harbor.

The closure of SNUG Harbor and the relocation of the UHMC will allow redevelopment of the former KMR and adjacent lands as a full-scale modern containerized cargo terminal. For UH, however, the uncertainty associated with the UHMC's future location and timing of the relocation resulted in the cessation of UH investment in capital improvements at the UHMC. Since 1982, no new buildings have been constructed, and temporary portable trailers have been used to accommodate expansions. The relocation of the UHMC is needed to allow the UH to judiciously plan and commit funds in furtherance of its goals and objectives for marine education and research at the UHMC.

### **2.2 PROPOSED PROJECT**

Proposed project improvements include constructing a paved, fenced and lighted laydown/storage area and installing a new larger floating dock to replace the existing floating dock fronting the METC (see Figure 2-2).

In the first phase, approximately one-half of the 4.6 acre vacant lot will be developed for the laydown/storage area. Following construction, SOEST proposes to relocate a number of storage containers from the Pier 45 Snug Harbor facility to the Laydown Area, and erect tents and/or prefabricated structures to house its collection of geologic samples. In addition, the laydown area will be used to store SOEST's small vessels and trailers and for parking by SOEST personnel and visitors.

The proposed replacement floating dock will be used jointly by SOEST, the UH Sailing Team, the UH Student Recreation Service, and the HCC METC. SOEST will access the floating dock through the existing METC facility. This will require some adjustments in uses on the METC site to provide space for moving trailered SOEST vessels and equipment.

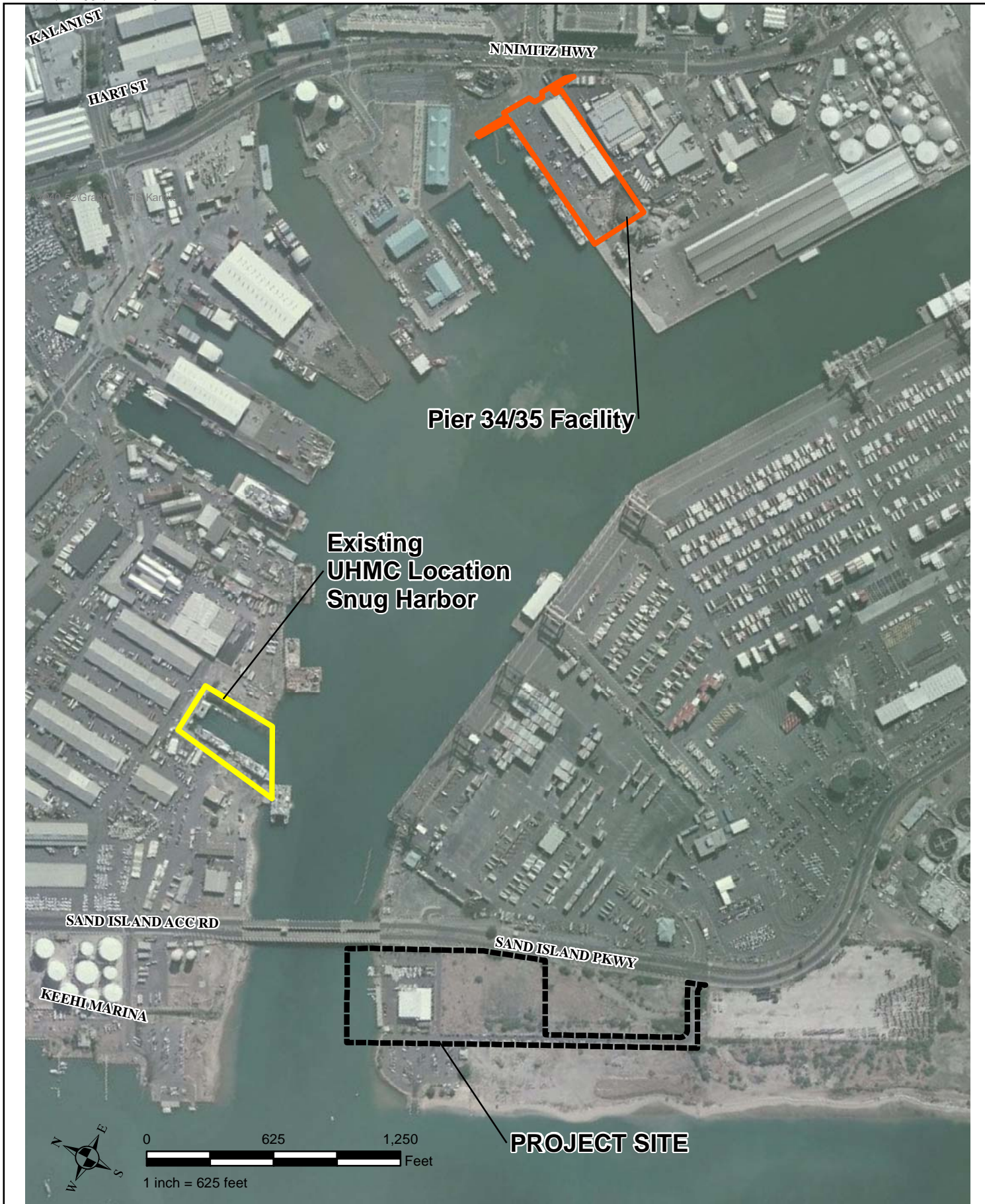
In the future, SOEST plans to expand the laydown storage area over the remainder of the vacant lot.

### **2.3 Development Schedule**

As discussed previously, project implementation will occur in several phases as illustrated in Table 2-1, below. The first phase to be pursued following the conclusion of permitting includes site preparation and the development of the SOEST Laydown Area as well as the installation of security lighting and fencing. It is estimated that this work will be completed by early 2017. The installation of the proposed new floating dock will follow the completion of this work. The remaining vacant area adjacent to the SOEST Laydown Area will remain open in the interim until second phase expansion plans are finalized.

### **2.4 Project Costs**

The total development cost of the first phase is estimated at \$2 million.



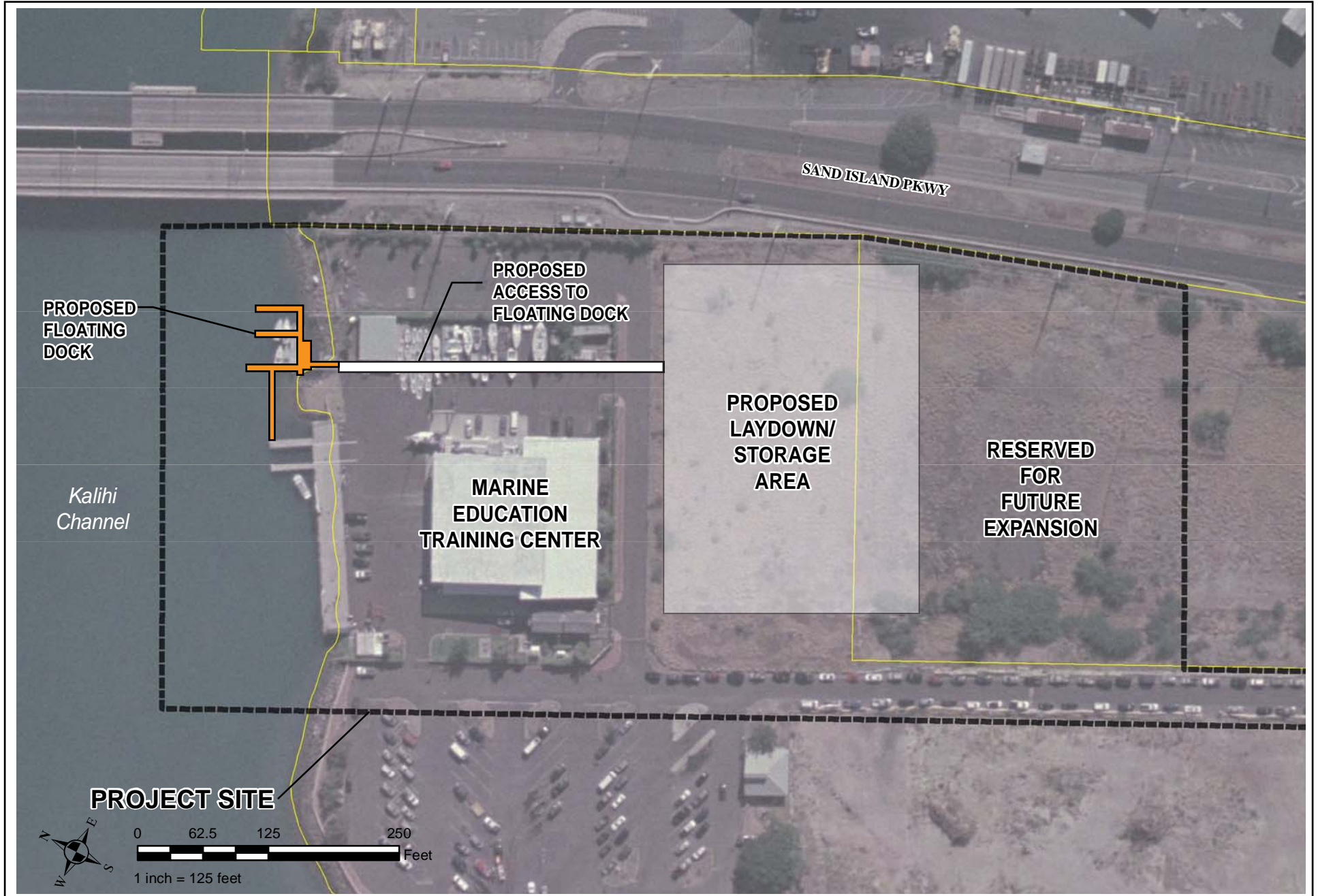
SOEST AND METC FACILITIES AT SAND ISLAND

RELOCATION OF UHMC

FIGURE

2-1





**SOEST AND METC FACILITIES AT SAND ISLAND**

**EASEMENT MAP/SITE PLAN**

FIGURE

2-2

### **3. DESCRIPTION OF EXISTING ENVIRONMENT, IMPACTS, AND MITIGATION MEASURES**

#### **3.1 Climate**

The climate of O'ahu is relatively moderate throughout most of the year and is characterized as semi-tropical with two seasons. The summer period runs from May through September and is generally warm and dry, with predominantly northeast trade winds. In contrast, the winter season runs from October through April and is associated with lower temperatures, higher rainfall and less prevalent trade winds.

The project is located in the Honolulu area which has a climate typical of the leeward coastal lowlands of O'ahu. The area is characterized by abundant sunshine, persistent trade winds, relatively constant temperatures, moderate humidity, and the infrequency of severe storms. Northeasterly trade winds prevail throughout the year although its frequency varies.

The mean temperature measured at Honolulu International Airport ranges from 70 degrees in the winter to 84 degrees Fahrenheit in the summer. Average annual precipitation is measured as approximately 30 inches, with rainfall occurring mostly between October and March.

Over the 20<sup>th</sup> Century, the average temperatures of the Earth's surface and shallow ocean have increased (Fletcher 2010). These changes are largely attributed to the release of greenhouse gases (GHGs) into the atmosphere, so-called as they absorb and "trap" solar radiation instead of reflecting it back into space. Generally speaking, GHGs include carbon dioxide, methane, nitrous oxide, and chlorofluorocarbons.

The main sources of GHG emissions resulting from human activity are from the following sectors, in order from most emissions to least: fossil fuel power stations, industrial activity, transportation, agriculture, fossil fuel processing, residential and commercial activity, land use and biomass burning, and waste disposal and treatment. In 2007, the United States was responsible for approximately 20 percent of global carbon dioxide emissions (WRI 2010). Within Hawai'i, O'ahu emits about 80 percent of the state's total carbon dioxide emissions (ICF 2008). Hawai'i's GHG emissions encompass less than 1 percent of the national total, as of 2007 (Environmental Protection Agency [EPA] 2008).

#### **Impacts and Mitigation Measures**

No significant impacts on climate in the project area are anticipated. Construction and operation of proposed project improvements are not anticipated to affect temperatures, wind, or rainfall levels in the project area.

The implementation of the proposed action will result in the short-term irrevocable release of GHGs from construction activity. This quantity, however, will be negligible. No mitigation is required or proposed.

## **3.2 Physiography**

### **3.2.1 Geology and Topography**

The island of O‘ahu is a volcanic doublet formed by the Wai‘anae Range to the west and the younger Ko‘olau Range to the east. Both are remnants of shield volcanoes, but the term “range” indicates that they have lost most of their original shield outlines and are now long, narrow ridges shaped largely by erosion.

O‘ahu’s southern central coast, geographically referred to as the Honolulu Plain, is underlain by a broad, elevated coral reef which has been partly covered by alluvium carried down from the mountains. Later post-erosional eruptions sent lava down the valleys and involved formation of volcanic cones such as Diamond Head and Tantalus.

The Honolulu Harbor complex, which includes Sand Island and the subject project site, is situated within Honolulu Plain, which encompasses the narrow coastal plain of O‘ahu’s south central coast. The Honolulu Plain and much of the remaining southern edge of O‘ahu is underlain by a broad elevated coral reef, which is covered by alluvium carried out from the mountains. The Honolulu Plain ranges in elevation from zero to ten feet. Sand Island itself is underlain by a zone of low permeability known as caprock which extends along the coastline approximately 800 to 900 feet below sea level. This caprock layer prevents the seaward movement of potable water from the basaltic aquifers which lie underneath it.

Sand Island originally consisted of two separate islands surrounded by shallow coral reefs and mud flats. With the development of Honolulu Harbor and the dredging for Kapālama Basin, the shallow areas surrounding the original two islands were filled with dredged materials and spanned by a causeway constructed to connect the newly formed landmass (Sand Island) with Kalihi. Sand Island Access Road originally crossed this causeway until it was replaced by the existing bascule bridge. Following the initial filling of the site, numerous other operations have gradually raised the area to its present condition.

As referenced above, Sand Island was created on a shallow reef by the incremental deposition and compaction of material from adjacent dredging in Honolulu Harbor and Ke‘ehi Lagoon. Aside from intermittent small land forms and depressions in undeveloped regions, the subject project site is relatively flat, and its topography ranges from near sea level at the shoreline to approximately eight feet along Sand Island Parkway.

#### **Impacts and Mitigation Measures**

In the short- and long-term, no significant impacts on geology or topography are anticipated during construction or operation of the proposed project. Construction of proposed project improvements, however, will not involve any major land disturbing activities involving mass grading or significant revisions to site contours. Applicable best management practices and erosion control measures will be implemented to ensure no adverse impact to the existing geology and topography.

### **3.2.2 Soils**

According to the U.S. Department of Agriculture, Natural Resource Conservation Service, soils within the project site are classified as fill land, mixed (FL) consisting of two general soil

conditions; the first is a dredged fill resting upon one to two feet of mud on a coral ledge, the second consists of dredged fill placed upon soft lagoon deposits in the absence of a coral ledge (See Figure 3-1)

The Land Study Bureau (LSB) classifies site soils with an overall agricultural productivity rating of E, the lowest rating. Soil series are classified as “man-made”, well-drained, 0-10 percent slope, with variable soil properties.

### **Impacts and Mitigation Measures**

In the short- and long- term, no significant impacts on soils are anticipated during the construction or operation of the proposed project. The project site is a previously developed site within the urban core of Honolulu. The project would involve some fine grading for new construction activities. Minor excavation for utility and fencing work are also involved with this effort. Construction of the proposed project, however, will not involve any major land disturbing activities involving mass grading or significant revisions to site contours. Applicable best management practices and erosion control measures will be implemented. As applicable for each phase, these may include but are not limited to: temporary sediment basins, temporary diversion berms and swales to intercept runoff, silt fences, dust fences, slope protection, stabilized construction vehicle entrance, grate inlet protection, truck wash down areas, and use of compost filter socks. Planting of landscaping also will be done as soon as possible on completed areas to help control erosion. Permanent sediment control measures will be used once construction is completed.

Coordination will be undertaken with the appropriate agencies during permitting and construction in order to ensure that the proposed project will not result in significant impacts with regard to soils and erosion. A National Pollutant Discharge Elimination System (NPDES) permit for storm water runoff from construction activities would be required as individual and/or cumulative soil disturbances on the project site will exceed one acre of land area. Any discharges related to project construction or operation activities will comply with applicable State Water Quality Standards as specified in Hawai'i Administrative Rules, Chapter 11-54 and 11-55 Water Pollution Control, Department of Health. Excavation and grading activities will be regulated by applicable provisions of the County's grading ordinance.

## **3.3 Hydrology**

### **3.3.1 Surface and Coastal Waters**

There is no surface water resource located within the land portion of the project site. The nearest streams are Kalihi Stream and Kapālāma Drainage Canal. According to the Hawai'i Stream Assessment, both streams are perennial streams that flow to the sea year-round. Kalihi Stream is located approximately 1,800 feet to the northwest of the subject property where it empties into Ke'ehi Lagoon near the seaplane runway. Kapālāma Drainage Canal is located approximately 1,500 feet to the southeast of the subject property and empties into the Kapālāma Basin.





SOEST AND METC FACILITIES AT SAND ISLAND

SOILS

FIGURE

3-1

According to the National Wetlands Inventory, Kalihi Stream is identified as a Riverine Upper Perennial Unconsolidated Bottom Permanently Flooded (R3UBH) wetland and Palustrine Emergent Persistent Seasonally Flooded wetland (PEM1C).

Portions of Kapālama Canal closest to the project site are classified as Estuarine Sub-tidal Unconsolidated Bottom Sub-tidal wetland (E1UBL).

Where Kalihi Stream empties into Ke‘ehi Lagoon near the seaplane runway, these waters are classified as Estuarine Sub-tidal Unconsolidated Bottom Sub-tidal wetland (E1UBL). Kapālama Drainage Canal empties into Kapalama Basin, which is classified as Marine Sub-tidal Unconsolidated Bottom Sub-tidal Excavated (M1UBLx).

The nearest coastal water is the Kalihi Channel, in which the proposed floating dock would be moored. The channel connects Ke‘ehi Lagoon and Kapālama Basin, which are part of Honolulu Harbor. Pursuant to Hawai‘i Administrative Rules (HAR) Title 11, Chapter 54, Water Quality Standards, the coastal waters in the vicinity of the project site are classified as Class A marine waters. Class A marine waters are recognized as waters providing “recreational purposes and aesthetic enjoyment to be protected. These waters shall not act as receiving waters for any discharge which has not received the best degree of treatment or control compatible with the criteria established for this class”.

#### **Impacts and Mitigation Measures**

No short- or long-term significant impacts on surface and/or coastal waters in the project vicinity are anticipated during construction or operation of the proposed project. There are no streams or wetlands on or within close proximity to the project site. Construction of the proposed project will not involve major land disturbing activities. Applicable erosion control measures and best management practices will be implemented in order to mitigate any possible adverse effects relating to runoff. As applicable for each phase, these may include but are not be limited to: temporary sediment basins, temporary diversion berms and swales to intercept runoff, silt fences, dust fences, slope protection, stabilized construction vehicle entrance, grate inlet protection, truck wash down areas, and use of compost filter socks. Planting of landscaping also will be done as soon as possible on completed areas to help control erosion. Permanent sediment control measures will be used once construction is completed.

Coordination will be undertaken with the appropriate agencies during permitting and construction in order to ensure that the proposed project will not result in significant impacts with regard to surface and coastal waters. A National Pollutant Discharge Elimination System (NPDES) permit for storm water runoff from construction activities would be required as individual and/or cumulative soil disturbances on the project site will exceed one acre of land area. Any discharges related to project construction or operation activities will comply with applicable State Water Quality Standards as specified in Hawai‘i Administrative Rules, Chapters 11-54 and 11-55 Water Pollution Control, Department of Health. Excavation and grading activities will be regulated by applicable provisions of the County’s grading ordinance.

Installation of the floating dock will also require a Department of the Army permit under Section 10 of the federal Rivers and Harbors Act. While the permit addresses navigational considerations, as a federal permit, it provides opportunities for the Corps of Engineers, the agency processing the permit, to pursue any warranted consultation with other federal agencies. This may include consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the federal Endangered Species Act and consultation with the National Oceanic and Atmospheric Administration (National Marine Fisheries Service) pursuant to the Magnuson Stevens Act (Essential Fish Habitat) and the federal Marine Mammals Act.

### **3.3.2 Groundwater**

The State Department of Land and Natural Resources (DLNR), Commission on Water Resource Management (CWRM) has established a groundwater hydrologic unit and coding system for groundwater resource management. The proposed project site is located within the Honolulu Sector Area which is comprised of six Aquifer System Areas identified as Wai'alae – East, Wai'alae – West, Pālolo, Nu'uaniu, Kalihi and Moanalua. The project site is located within the Kalihi Aquifer System (30103) area which has an estimated yield of 9 million gallons per day (mgd).

#### **Impacts and Mitigation Measures**

No short- or long-term significant impacts on groundwater in the project vicinity are anticipated during construction or operation of the proposed project. Infiltration of water at the project site would eventually reach seawater in the ground as opposed to the aquifers discussed above, which lie below the caprock. Construction activities are not likely to introduce to, nor release from the soils, any materials that could adversely affect the underlying groundwater. Construction material wastes will appropriately be disposed of to prevent any leachate from contaminating groundwater.

As the project will relocate an existing use from within the general vicinity, no additional demand on potable groundwater sources will be created.

### **3.4 Natural Hazards**

#### **3.4.1 Flood and Tsunami Hazard**

Honolulu is vulnerable to flooding from inland streams, hurricane and tropical storm surge, and seasonal high waves. Nu'uaniu stream and Honolulu, in general, have historically experienced widespread flooding (Fletcher et al. 2002).

According to the Flood Insurance Rate Map (FIRM), (Community Panel Number 1500010115 B) prepared by the Federal Emergency Management Agency (FEMA), the project site is designated Zone X, an area determined to be outside of 500 year floodplain (See Figure 3-2). There are no base flood elevations or depths shown within this zone. The northwestern area of Sand Island is also outside of the 100-year tsunami inundation zone and the coastal high hazard zone. The area is well protected by the broad coastal reefs extending seaward which minimize the potential impacts of tsunami.

**Impacts and Mitigation Measures**

In the short- and long-term, no significant impacts on flood hazards in the project area are anticipated as the proposed improvements are not anticipated to increase flood risks or cause any adverse flood-related impacts at the project site or lower elevation properties. For development done in the various phases, all drainage improvements, excavation and grading will be coordinated with the appropriate agencies during permitting and construction in order to ensure that the proposed project will not result in significant impacts regarding flood and tsunami hazards.

**3.4.2 Hurricane and Wind Hazard**

The Hawaiian Islands are seasonally affected by Pacific hurricanes from the late summer to early winter months. The State has been affected twice since 1982 by significant hurricanes, 'Iwa in 1982 and 'Iniki in 1992. During hurricanes and storm conditions, high winds cause strong uplift forces on structures, particularly on roofs. Wind-driven materials and debris can attain high velocity and cause devastating property damage and harm to life and limb. It is difficult to predict these natural occurrences, but it is reasonable to assume that future events will occur. The project area is, however, no more or less vulnerable than the rest of the island to the destructive winds and torrential rains associated with hurricanes.

**Impacts and Mitigation Measures**

The potential for hurricanes, while relatively rare, is present. Existing METC facilities are designed to withstand hurricane force winds. To safeguard against hurricane damage, project improvements will be designed in compliance with American Society of Civil Engineers and International Building Code standards for wind exposure.

**3.4.3 Seismic Hazard**

The southern shoreline of O'ahu lies within the Moloka'i Seismic Zone. This region of O'ahu is classified as 2A Seismic Zone under the Uniform Building Code (UBC). Zone 2A is characterized as having earthquakes that may cause minor damage to structures. The Honolulu coastline is assessed to have moderately high vulnerability to earthquakes (Fletcher et al. 2002).

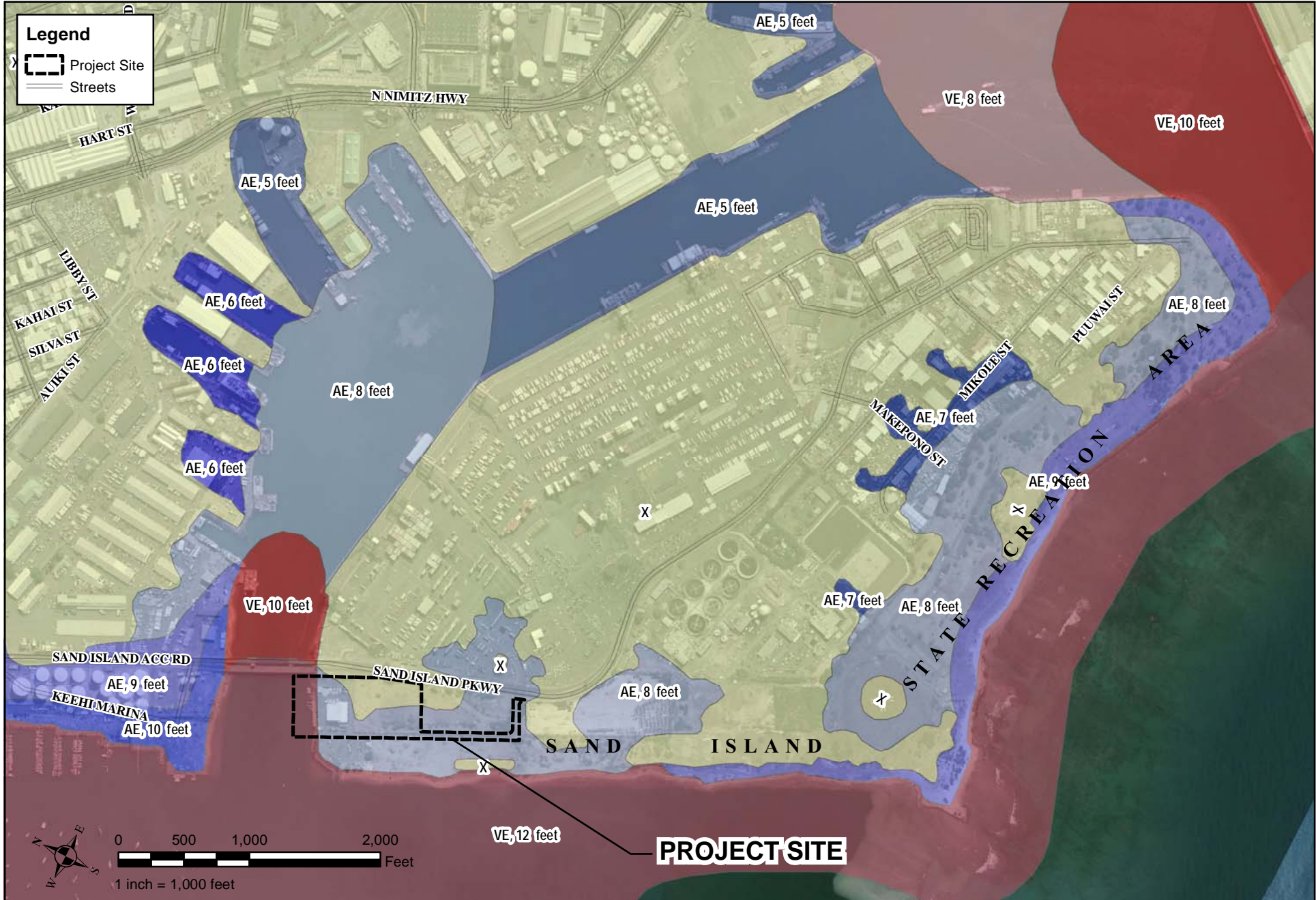
**Impacts and Mitigation Measures**

O'ahu has not experienced significant seismic events in the modern era. The proposed project improvements would meet prevailing building codes, which incorporate specifications to reduce vulnerability to earthquakes.

**3.5 Natural Environment****3.5.1 Flora and Fauna**

The project site is located in a highly altered urban environment. Consequently, no rare, threatened or endangered flora or fauna species have been observed to exist at the project site. Species most commonly frequenting the site and vicinity are typical of urbanized areas and consist of common introduced flora and fauna.





SOEST AND METC FACILITIES AT SAND ISLAND

FLOOD INSURANCE RATE MAP

FIGURE

3-2

Moreover, as the project is surrounded by industrial uses and improved park land, and is comprised of land created from dredged material, only a small variety of untended plant life occurs on Sand Island. Vegetation on Sand Island must survive generally low rainfall, saline soil of man-made origin and a high degree of ground alteration and coverage by buildings and pavement. Consequently, existing plant species are characterized as drought-resistant, saline tolerate, and hardy in dry areas. The majority of these species would have been introduced during fill operations. AECOS Inc. conducted various water quality and biological surveys of the project site in January of 2015, the findings of these surveys are included herein as Appendix A and are summarized below:

Vegetation:

Essentially all of the land that is Sand Island in the project vicinity comprises fill material deposited from dredging of Honolulu Harbor and from other sources. The shore of the project site is mostly piers and seawall with little suitable area for vegetation growth.

Flora:

The climate in the area is dry coastal and the flora is mostly herbaceous plants typical of disturbed areas, with elements of dry coastal scrub and coastal strand assemblages. A total of 53 plant species were recorded during the survey. Pigweed (*Portulaca oleracea*), wiregrass (*Elusine indica*), tree tobacco (*Nicotiana glauca*), grow near the floating piers used by the sailing club. Pickleweed (*Batis maritima*) and mangrove (*Rhizophora mangle*) grow above the rip-rap, an area shaded by milo (*Thespesia populnea*). Guinea grass (*Urochloa maxima*) and sorghum (*Sorghum halepense*) grow further upslope from the shoreline.

The bulk of the approximately 4.6-ac undeveloped parcel to be used in part as a laydown/storage area is covered with buffelgrass (*Cenchrus ciliaris*) and kiawe (*Prosopis pallida*). Virgate mimosa (*Desmanthus pernambucanus*), Indian fleabane (*Pluchea indica*), 'uhaloa (*Waltheria indica*), 'akulikuli (*Sesuvium portulacastrum*), and sourbush (*Pluchea carolinensis*) grow interspersed among the kiawe and occasional koa haole (*Leucaena leucocephala*) shrubs.

Low growing, herbaceous growths of *Sida ciliaris*, false alena (*Boerhavia coccinea*), and coatbuttons (*Tridax procumbens*) line the verge of the access road. Patches of Bermuda grass (*Cynodon dactylon*), buffelgrass, and swollen finger grass (*Chloris barbata*) also grow along the road. Vines (*Ipomoea obscura* and *Macroptilium atropurpureum*) grow in places over concrete barriers along the access road.

Five species observed in the survey area are indigenous to the Hawaiian Islands: 'uhaloa, seaside heliotrope (*Heliotropium curassavicum*), 'akulikuli (*Sesuvium portulacastrum*), milo (*Thespesia populnea*) and naupaka kahakai (*Scaevola taccada*). Early Polynesian introductions recorded are niu (*Cocos nucifera*) and kamani (*Calophyllum inophyllum*). No endemic plant species were observed.

Avian and Terrestrial Fauna:

Wildlife on Sand Island is essentially limited to mammals and birds that have adapted to the urban environment. During stationary point counts, a total of 59 individual birds from 7 families were recorded. All of these bird species are naturalized residents, with Spotted Dove

(*Streptopelia chinensis*) and House Sparrow (*Passer domesticus*) together constituting more than half (56%) of total birds recorded. These two were the only species observed at every point-count station. Common Myna (*Acridotheres tristis*), Red-vented Bulbul (*Pycnonotus cafer*), and Red-crested Cardinal (*Paroaria coronata*) were regularly sighted throughout the Project area. Four Chestnut Munia (*Lonchura atricapilla*) were observed while traversing the property, representing the only bird species observed on site that was not detected during stationary point counts.

The entire survey area is overrun with feral House cats (*Felis catus*). Numerous banquet tables covered with cat food and water are present in the undeveloped parcel. The Small Indian mongoose (*Herpestes auropunctatus*) also inhabits the Project area. Though no rats or mice were observed during the survey, it is possible that one or all of the four naturalized rodents (Family Muridae) in the Hawaiian Islands utilizes the Project area, or not given the cat population.

#### Marine Resources:

The survey area is a remnant reef in water ranging in depth from 0 to 10.9 m (0 to 26 ft) with a substratum of mostly sand adjacent to a dredged ship channel. A veneer of silt covers most bottom substrata, and cyanobacteria are abundant on the bottom. Boulders and sections of remnant reef are scattered about: a cluster of boulders and debris is present on the bottom close to the Bascule Bridge. Sand bottom slopes down to mid channel, reaching a depth of 36 ft (14 m).

In this area, minimal biota was observed. Corals are uncommon here, and the few colonies encountered are growing on the large hard bottom areas or loose rubble and debris such as tires, concrete blocks, and a bicycle. Six coral species were observed: *Porites lobata*, *Pocillopora damicornis*, *Montipora capitata*, *Cyphastrea ocellina* and *Leptastrea bewickensis* and *L. purpurea*. Coral colonies observed are mostly small (<5 and 11 to 20 cm size classes). Non-coral invertebrates seen here include bryozoans (*Reteporellina denticulata*, *Schizoporella errata*, *Amathia distans*, *Bugula dentata*), portunid crabs, feather duster worm (*Sabellastarte spectabilis*), sacoglossan sea slug (*Plakobranthus ocellatus*), nudibranch (*Chromodoris vibratra*), black sea squirt (*Phallusia nigra*), and oyster (*Dendrostroma sandvicensis*). A single black-lipped pear oyster (*Pinctada margaritifera*) was observed.

Fishes are not common here; the few seen in the December 2014 survey include: moorish idol (*Zanclus cornutus*), butterflyfish (*Chaetodon auriga*, *Forcipiger flavissimus*), stripebelly puffer (*Arothron hispidus*), spotted boxfish (*Ostracion meleagris*), blacktail snapper (*Lutjanus fulvus*), goatfishes (*Upeneus arge*, *Mulloidichthys flavolineatus*), damselfishes (*Abudefduf abdominalis* and *A. vaigiensis*, *Dascyllus albisella*), surgeonfishes (*Acanthurus triostegus*, *A. nigrofuscus*, and *Zebrasoma flavescens*) and Hawaiian green lionfish (*Dendrochirus barberi*). A large bed of seagrass (*Halophlia decipens*) was observed near the shore, close to the existing floating dock.

#### Impacts and Mitigation Measures

Potential for adverse effects to flora and fauna is not anticipated. The project site is located within a highly altered urban environment. No listed or protected plant species are known from the project area. Rare, threatened, or endangered fauna are not known to utilize the site for either habitat or foraging purposes. Construction activities

may temporarily disrupt routine behavior of common faunal species in the immediate project area, but will not result in permanent displacement, or adversely affect regional distribution of affected fauna. Specifically, the project includes work in marine waters where ESA-listed species may be directly exposed to project-related activity. Sea turtles and marine mammals typically avoid human activity, so exposure to such activity and equipment operation would be infrequent and non-injurious, resulting in insignificant effects on the ESA-listed marine species. Additionally, protected species BMPs require that the project manager and contractor reduce the likelihood of interactions by watching for and avoiding protected species before commencing work and by postponing or halting operations when protected species are within 50 yards of project activities (USACE, 2012). Once project activities are complete, faunal activity in the vicinity of the work site is expected to return to pre-existing conditions.

Although there is no evidence of migratory seabirds and native waterfowl species using the project site for breeding or habitation, some are known to visit areas within the wider project study area. No adverse impacts resulting from the project are anticipated. However, measures to prevent adverse effects to avifauna from night lighting will include the following:

- During construction activities, all nighttime lighting will be shielded and angled downward to reduce glare and disruption of bird flight.
- Following construction, permanent light sources will be shielded and angled downward to eliminate glare that could disturb or disorient animals.

The nearshore environment of the proposed floating dock location supports a marine assemblage poor in species and numbers. This finding is consistent with previous surveys of this area of Honolulu Harbor (AECOS, 2007, 2009, 2010, 2014). The placement of a floating dock over the seafloor fronting Sand Island may have some impacts to the extant marine biological community, but no listed or rare biological resources currently exist at the proposed location. Special consideration may be necessary for the bed of seagrass observed in the vicinity of the proposed floating dock.

### **3.6 Historic and Archaeological Resources**

An Archaeological Assessment (AA) subject to review under Hawai'i Revised Statutes (HRS) §6E-8 and Hawai'i Administrative Rules (HAR) §13-13-275 to fulfill the requirements of HAR §13-13-276 was conducted by Cultural Surveys Hawaii (CSH) to identify, document, and make significance assessments of any historic properties on the project site.

The AA report, reproduced in its entirety in Appendix B, is intended to support the proposed project's historic preservation review under HRS §6E-8 and HAR) §13-13-275, as well as the project's environmental review under HRS §343. Findings of the AA report are summarized below:

The fieldwork component of the AA was conducted between November 25 and 28, 2014 by CSH archaeologists Scott A. Belluomini, B.A., Layne Krause B.A., and Richard Stark, Ph.D. under the general supervision of project manager David Shideler and principal investigator,



Hallett Hammatt, Ph.D. This work required approximately ten person-days to complete. In general, fieldwork included a full pedestrian inspection of the project area, an underwater survey of the submerged land easement for the proposed floating dock, Global positioning system (GPS) data collection, and subsurface testing of the laydown area.

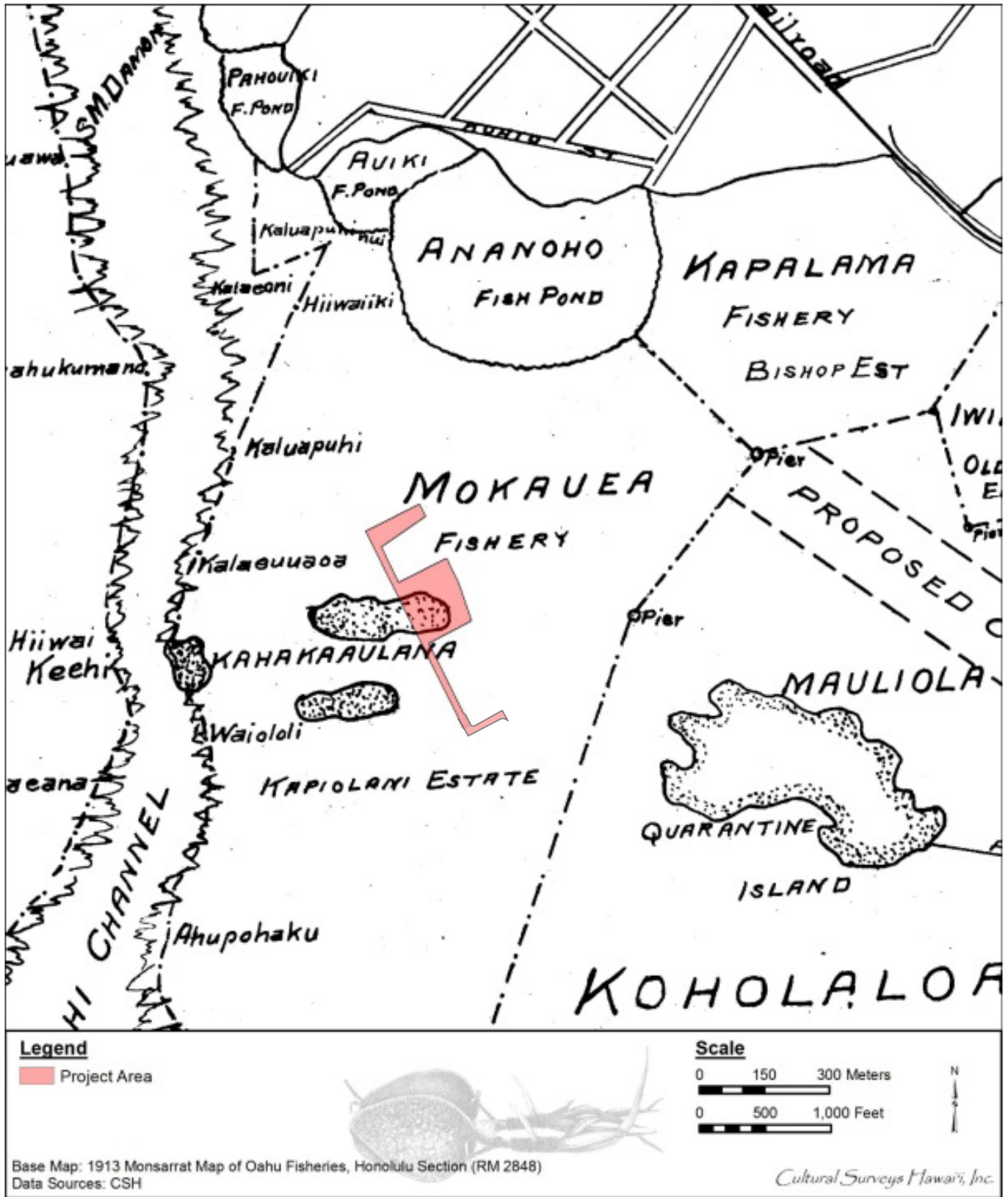
Background research indicates the project area is located within the traditional boundaries of the Mokauea Fishery. Maps indicate a portion of Mokauea Island existed within the project area prior to and in the early part of the twentieth century (See Figure 3-3). Subsurface testing for the presence/absence of natural sediments deposited on Mokauea Island determined that relic sediments exist at least 140 cm (55 inches) below the surface in the southwest portion of the proposed laydown area. No artifacts were recovered from these natural sediments and previous archaeological research within the immediate vicinity of the project area indicate that relic archaeological surfaces from within the project area have been highly altered or destroyed mechanically with the historical development of the area. Historic fill deposits were predicted to and did dominate subterranean stratigraphy. CSH archaeologists observed a generally similar pattern of stratigraphic sequences of historic fills. Test excavations identified as T-4, T-5 and T-7 (See Figure 3-4), all within the southwest corner of the proposed laydown area, are the only trenches in which natural sediments are encountered. T-7, T-8, and T-9 are the only trenches in which artifacts were observed. No artifacts were observed in context with natural sediments; all observed artifacts are historic and none of them are deemed traditional. Six artifacts were collected from within the project area. These artifacts include items that may be expected to be mixed in with historic fills from Sand Island, including two glass bottles, a playing card, an unidentified steel object, a steel hook and loop, and a clay brick.

#### **Impacts and Mitigation Measures**

The proposed project is not expected to result in potential for negative adverse effects on archaeological resources as no historic properties were identified within the current project area.

CSH's project specific effect recommendation is "no historic properties affected." A few historic artifacts were observed but were not concentrated and are not intrinsically associated with any new historic property. No discrete cultural layers or pit features were observed. Consequently, CSH's investigation is classified as an archaeological assessment, per HAR §13-13-275-5(b)(5)(A): "Results of the survey shall be reported either through an archaeological assessment, if no sites were found, or an archaeological survey report which meets the minimum standards set forth in HAR §13-13-276. Further, no human skeletal remains were discovered during this AA investigation that would require compliance with Hawai'i State burial law (HRS §6E-43 and HAR §13-13-300).

In the event of unexpected discovery of historic or archaeological resources, the State Historic Preservation Division (SHPD) will be immediately notified for appropriate response and action.



Source: Cultural Surveys Hawaii, Inc.



SOEST AND METC FACILITIES AT SAND ISLAND



1913 MONSARRAT MAP

FIGURE

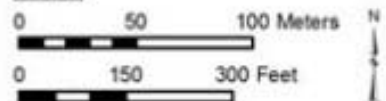
3-3



**Legend**

-  Project Area
-  Trench Location

**Scale**



Base Map: Google Earth Aerial Imagery (2013)  
Data Sources: CSH

*Cultural Surveys Hawaii, Inc.*

Source: Cultural Surveys Hawaii, Inc.



**SOEST AND METC FACILITIES AT SAND ISLAND**

**LOCATION OF TEST EXCAVATIONS**

FIGURE

3-4

### 3.7 Cultural Resources and Practices

No cultural resources were identified by CSH in their visits to the site and during excavation work for the subject AA (see Appendix B). The project site and surrounding lands are not used for traditional, customary, or cultural practices. The project site is located on artificially created land comprised of mixed fill soils in an area that was submerged by the ocean until modern times. Plants found at the site are introduced grass species not associated with cultural gathering or use activities. The artificial creation and developed condition of the site is not conducive to the presence of wahi pana (storied place) or other sites associated with cultural practices.

#### **Impacts and Mitigation Measures**

Based on the above, the potential for adverse effects on traditional and cultural practices is not anticipated. Construction of the proposed project improvements will not disturb traditional sacred sites or traditional cultural objects; will not result in the degradation of resources used by native Hawaiians for subsistence or traditional cultural practices; will not obstruct culturally significant landforms or way-finding features; and, will not result in loss of access to the shoreline or other areas customarily used by Native Hawaiians or others for resource gathering or traditional cultural practices. No mitigation measures are proposed.

### 3.8 Air Quality

The State of Hawai'i Department of Health (DOH), Clean Air Branch, monitors the ambient air quality in the State for various gaseous and particulate air pollutants. The U.S. Environmental Protection Agency (EPA) has set national ambient air quality standards (NAAQS) for six criteria pollutants: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), lead (Pb), ozone (O<sub>3</sub>), and particulate matter (PM<sub>10</sub> and PM<sub>2</sub>). Hawai'i has also established a state ambient air standard for hydrogen sulfide (H<sub>2</sub>S) related to volcanic activity on Hawai'i Island. The primary purpose of the statewide monitoring network is to measure ambient air concentrations of these pollutants and ensure that these air quality standards are met.

Air pollution in Hawai'i is caused by many different man-made and natural sources. There are industrial sources of pollution, such as power plants and petroleum refineries; mobile sources, such as cars, trucks and buses; agricultural sources, such as sugar cane burning, and natural sources, such as windblown dust and volcanic activity. The DOH Clean Air Branch is responsible for regulating and monitoring pollution sources to ensure that the levels of criteria pollutants remain well below the State and federal ambient air quality standards.

The State Department of Health maintains an air quality monitoring station along Sand Island Access Road, near the entrance to the Sand Island State Recreation Area. The station monitors for ozone (O<sub>3</sub>), and PM<sub>2.5</sub> (particulate matter 2.5 micron size or smaller), as well as wind speed and direction. Monitoring at this station consistently shows readings well in compliance with State and federal air quality standards for the measured parameters. The most current published summary of State air quality data, which includes measurements from the years 2006 to 2008, records no instance where measured parameters at this station exceeded air quality standards (DOH, 2008).

Due to generally prevailing trade winds, air quality at the project site is generally good. Since there are industrial sources of air pollution in the Sand Island area, air quality is considered “Moderate”.

#### **Impacts and Mitigation Measures**

In the short- and long-term, no significant impacts on air quality are anticipated as a result of the construction and operation of the proposed project. A portion of the construction for the proposed project will involve fine grading as well as limited excavation for utility lines and fencing. Fugitive dust will be controlled, as required, by methods such as dust fences, water spraying and sprinkling of loose or exposed soil or ground surface areas. As deemed appropriate, planting of landscaping will be done as soon as possible on completed areas to also help control dust. Respective contractors will be responsible to minimize air quality impacts during the various phases of construction.

Exhaust emissions from construction vehicles are anticipated to have negligible impact on air quality in the project vicinity as the emissions would be relatively small and readily dissipated. In the long-term, some vehicular emissions related to operations at the project site are expected, however, due to the generally prevailing trade winds, the emissions would be readily dissipated.

### **3.8 Noise**

The existing noise environment at the project site is characteristic of an urban setting. The two major sources of noise on Sand Island are from vehicular traffic and aircraft overflights. Aircraft noise accounts for most significant contribution to ambient noise levels, as Sand Island is situated within the path of trade wind aircraft departures, approximately 8,000 feet from the end of Honolulu International Airport’s (HNL) Reef Runway.

Ambient noise levels generated by aircraft and airport operations have been studied as part of the U.S. Federal Aviation Administration’s (FAA) Federal Aviation Requirements (FAR) Part 150 Noise Control and Compatibility Planning Program. The noise exposure analysis for HNL indicated that, based on flight operations, aircraft mixes and noise characteristics of aircraft, the northwestern corner of Sand Island falls within the 70 Ldn noise contour. Ldn is the day-night metric of sound level that averages noise levels over a 24-hour period, and applies a penalty for evening noise. Industrial activities are generally compatible within the 70 Ldn noise contour.

#### **Impacts and Mitigation Measures**

In the short-term, noise from construction activities such as grading, excavating, paving and the movement of heavy vehicles will be unavoidable. In the long-term, operation of the proposed facility will initially involve moving shipping containers onto the Laydown Area using tractor trailers. The noise created by the initial occupation of the project site and periodic movement of containers and trailered vessels thereafter will generate unavoidable noise events.

The sonic character of Sand Island, however, is industrial with frequent aircraft overflights. Even the METC, which is an educational facility, provides training in



industrial trades. The Sand Island Recreation Area provides passive and active sports recreational opportunities in a man-made, urban setting. As such, there is little expectation of a pristine sonic environment for recreational use of the area. In this context, the short- and long-term noise impacts of the proposed project will be negligible.

Construction noise impacts will be mitigated by compliance with provisions of the State DOH Administrative Rules, Title 11, Chapter 46, "Community Noise Control" regulations. These rules require a noise permit if the noise levels from construction activities are expected to exceed the allowable levels stated in the DOH Administrative Rules. It shall be the contractor's responsibility to minimize noise impacts during the various phases of construction and to maintain noise levels within regulatory limits.

### 3.9 Hazardous Materials

A Phase I Environmental Site Assessment (ESA) was prepared by EnviroServices & Training Center LLC (ETC) in February 2015. This study is included herein as Appendix C, and is summarized below.

The subject Phase I Environmental Site Assessment (ESA) performed by ETC conforms with the scope and limitations of the American Society for Testing and Materials (ASTM) Practice E1527-13.

Visual observation for the use and/or storage of hazardous materials and hazardous waste was performed on December 8, 2014 and January 16, 2015. Fabrication, maintenance, and repair shops were noted on the northern portion of the Subject Property in association with the SOEST / METC facility.

The project site was not listed in any of the government databases by the contracted database search. The contracted database search identified one (1) Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) no further remedial action planned (NFRAP) site, fifty-eight (58) State Hazardous Waste sites (SHWS), six (6) leaking underground storage tanks (LUST) sites, one (1) underground storage tank (UST) site, one (1) State Brownfields site, and eleven (11) Orphan sites within the specified radii.

Review of the findings indicated that none of the database-identified facilities were considered a significant concern for the project site, except for one (1) Orphan site and the State Brownfields site, which subsequently was revealed to include the project site. Request for file review for the *DLNR Buried Drum Site* from the orphans list revealed no documentation other than that from the database report, which stated that there was a 10-gallon petroleum release that appeared to contaminate the soil and groundwater on Sand Island. The Hawaii Department of Health (DOH) has classified this item as a low hazard priority and the listed Project Manager was not able to provide a location. Although it is not clear whether this site is on or near the project site, due to the DOH's low risk ranking and the relatively minor amount of material released, ETC considers this a *de minimis* condition.

Review of documents associated with the Subject Property included two *Phase I Environmental Site Assessments* (ESA) conducted in 1991 and 2000 as well as the 2001 *Brownfields Environmental Site Assessment*, which had been identified in the database search for Sand Island. The 1991 *Phase I ESA* indicated that hazardous materials had not been properly stored and resulted in a small area of stained soil. However, since this was not identified in the subsequent ESAs or during the site reconnaissance, it can be concluded that the hazardous materials and stained soil were removed and no longer pose a reasonable risk of impacting the project site. Therefore, the former improper storage of hazardous materials is a *de minimis* condition.

The 2000 *Phase I ESA* indicated that the entire area had been used to dispose of solid waste since 1934. No obvious signs of solid waste dumping were identified during the site reconnaissance and solid waste was not noted in the two test pits dug on the project site as a part of the 2001 *Brownfields ESA*. However, there remains the possibility that buried solid waste may present. The 2001 *Brownfields ESA* included the analysis of soil from two test pits on the southern portion of the project site. Analytical results indicated that detectable concentrations of heavy metals, Semivolatile Organic Compounds (SVOCs), Volatile Organic Compounds (VOCs), and pesticides were found in one or more samples. Specifically, test Pit 2, located on the southwestern portion and east of the access road, contained elevated concentrations of benzo(a)pyrene. Visual observations of staining in the test pit(s) was also noted. Based on these findings, the suspect buried solid waste and contaminants found during the previous environmental investigations is considered a recognized environmental condition (REC).

Historical real property tax records, building permit records, aerial photographs, and Sanborn maps were reviewed to assess past and prior use history of the project site. No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

In summary the ETC Phase I ESA revealed no evidence of RECs in connection with the project site, except for the following:

The suspect buried solid waste and contaminants found during previous environmental investigations conducted on the project site and surrounding areas is considered a REC.

### **Impacts and Mitigation Measures**

The construction and operation of the proposed project is not anticipated to involve any hazardous materials. Suspect buried solid waste and contaminants found during previous environmental investigations conducted on the project site and surrounding areas will not be disturbed by the proposed action.

The Department of Health Environmental Health Program regulates asbestos and lead paint. State asbestos rules are noted in Title 11, Chapters 501, 502, 503, and 504, HAR. Lead based paints are regulated in Title 11, Chapter 41, HAR. Buildings should also be inventoried for polychlorinated biphenal (PCB) containing light ballasts and mercury containing lamps. PCB containing light ballasts and mercury containing lamps are normally handled per Universal Waste regulations. Any hazardous materials will be handled in accordance with all applicable Federal, State and local regulations.

### 3.10 Traffic

A Traffic Impact Report (TIR) was prepared in January of 2015 by Wilson Okamoto Corporation to evaluate existing and future conditions in the project area and to ascertain potential impacts resulting from the proposed project (See Appendix D). The findings of this TIR are summarized below:

#### Existing Traffic Conditions

The proposed UH SOEST facility will be located adjacent to Sand Island Parkway on the northwest corner of Sand Island. In the vicinity of the project site, Sand Island Parkway is a predominately four-lane, two-way divided roadway that connects to Sand Island Access Road north of the project site. Near the southeast corner of the project site, Sand Island Parkway intersects an access road for the Horizon Lines terminal facility. At this signalized intersection, both approaches of Sand Island Parkway have an exclusive left-turn lane, one through lane, and a shared through and right-turn lane. It should be noted that U-turns are allowed on both approaches of Sand Island Parkway for all vehicles except trucks. The westbound approach of the Horizon Lines access road has a shared left-turn and through lane, and an exclusive right-turn lane. The eastbound approach of the intersection is comprised of the access road that will serve the SOEST and METC facilities. This approach has one lane that serves all traffic movements.

Field investigations were conducted on November 25, 2014 and consisted of manual turning movement count surveys during the morning peak hours between 6:00 AM and 9:00 AM, and the afternoon peak hours between 3:00 PM and 6:00 PM at the intersection of Sand Island Parkway with the access road for the Horizon Lines terminal facility.

The highway capacity analysis performed in this TIR is based upon procedures presented in the "Highway Capacity Manual", Transportation Research Board, 2000, and the "Synchro" software, developed by Trafficware. The analysis is based on the concept of Level of Service (LOS) to identify the traffic impacts associated with traffic demands during the peak periods of traffic. LOS is a quantitative and qualitative assessment of traffic operations. Levels of Service are defined by LOS "A" through "F"; LOS "A" representing ideal or free-flow traffic operating conditions and LOS "F" unacceptable or potentially congested traffic operating conditions.

Figure 3-5 shows the existing AM and PM peak period traffic volumes and operating conditions. The AM peak hour of traffic generally occurs between 6:00 AM and 7:00 AM. The PM peak hour of traffic generally occurs between the hours of 3:00 PM and 4:00 PM. The analysis is based on these peak hour time periods to project traffic conditions with the proposed project.

At the intersection with the Horizon Lines access road, Sand Island Parkway carries 400 vehicles northbound and 947 vehicles southbound during the AM peak period. During the PM peak period, the overall traffic volume is lower with Sand Island Parkway carrying 648 vehicles northbound and 488 vehicles southbound. Due to the presence of shipping container handling facilities and industrial developments in the vicinity, a number of large vehicles were observed on both approaches of the roadway during the peak periods. Approximately 15% of the vehicles observed along Sand Island Parkway were large vehicles during the AM peak period while they accounted for only 5% during the PM peak period.



Both approaches of Sand Island Parkway operate at LOS "B" during the AM peak period and LOS "A" during the PM peak period.

The Horizon Lines access road approach of the intersection carries 39 vehicles westbound during the AM peak period and 68 vehicles westbound during the PM peak period. Since the access road services the adjacent Horizon Lines shipping container handling facility, a number of large vehicles were observed on this approach during the peak periods.

Approximately 50% of the vehicles observed on this approach were large vehicles during the AM peak period while they accounted for approximately 15% during the PM peak period. The Horizon Lines access road approach operates at LOS "C" during both peak periods.

The eastbound approach of the intersection is comprised of an access road that will serve the proposed SOEST and METC facilities. This approach carries a low volume of vehicles throughout the day with 21 vehicles and 14 vehicles observed on this approach during the AM and PM peak periods, respectively. The eastbound approach operates at LOS "C" during both peak periods.

### **Impacts and Mitigation Measures**

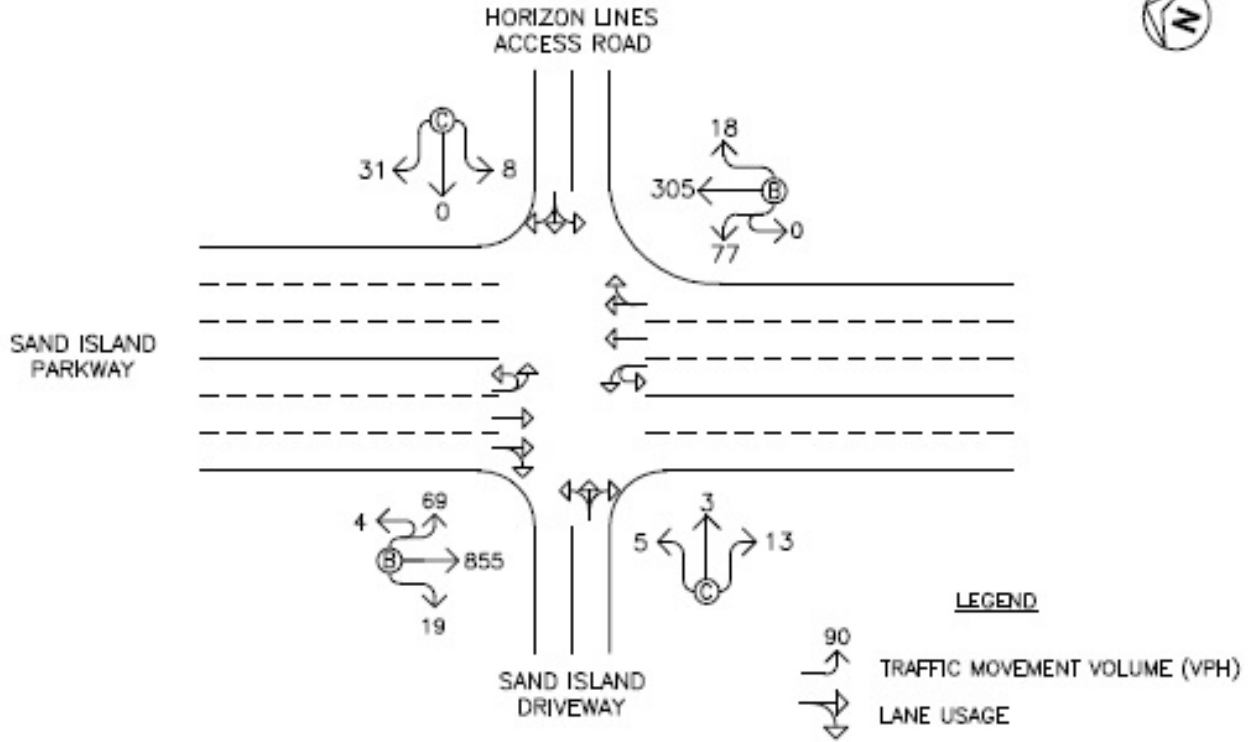
#### **Site Generated Traffic**

The proposed SOEST facility is located adjacent to the existing METC facility. Trips associated with the existing METC facility and users of the existing floating dock are encompassed by the traffic data collected during the field investigations and are not expected to increase by the Year 2016. Trips associated with the SOEST facility are expected to be divided into two categories: trips associated with the relocation of existing facilities and trips associated with the subsequent use of the facility. Upon completion of the proposed project, SOEST estimates that the relocation of their existing small boat operations from Pier 45 to Sand Island will take approximately 3-4 months. During this period, an average of 1-2 large vehicles and 2-3 small vehicles are expected to access the site per day with all of these trips assumed to occur during off-peak periods. After the initial relocation phase, SOEST estimates an average of approximately one large vehicle and 2-3 small vehicles expected to access the site per day with all of these trips assumed to occur during off-peak periods. As such, the proposed facility is not expected to generate additional vehicles during the AM and PM peak periods.

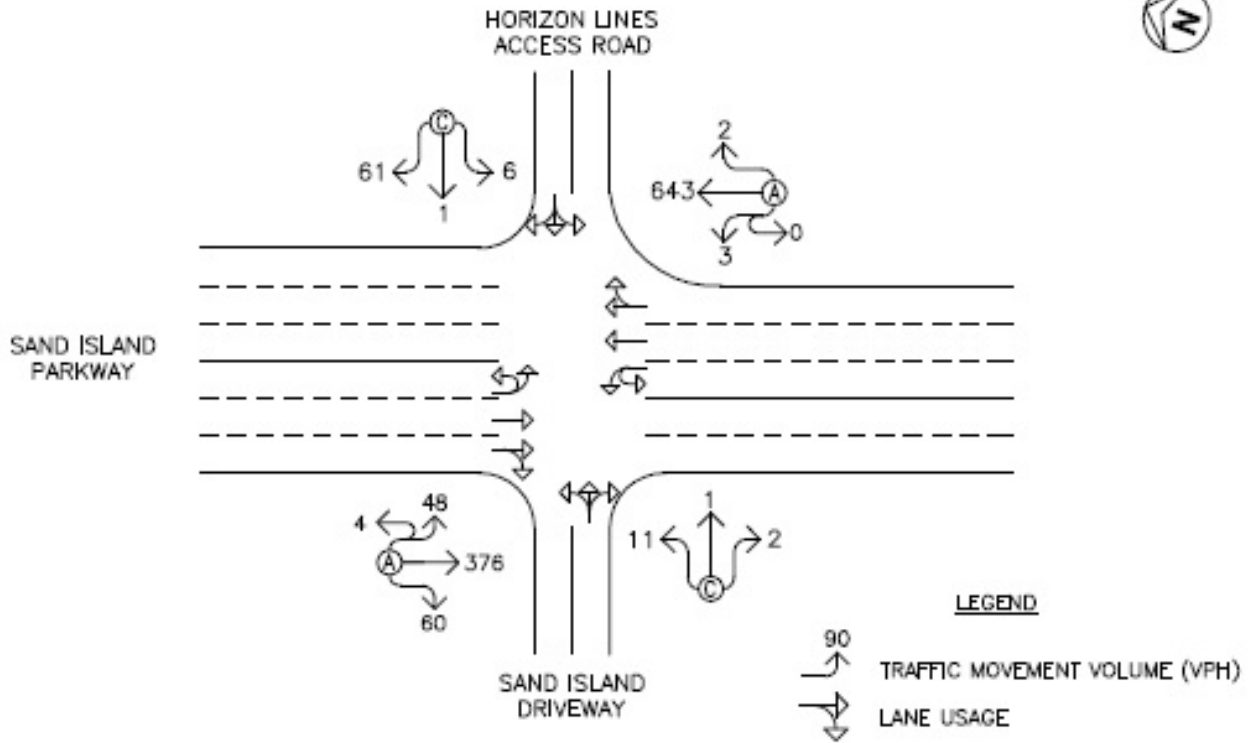
#### **Through Traffic Forecasting Methodology**

The travel forecast is based upon historical traffic count data obtained from the State DOT, Highways Division at a survey station located along Sand Island Parkway in the vicinity of the project site. The historical data indicates relatively stable traffic volumes along Sand Island Parkway. In addition, this section of Sand Island Parkway serves a number of established facilities such as the Sand Island Wastewater Treatment Plant, Sand Island State Recreation Area, and shipping container handling facilities similar to the Horizon Lines terminal facility. Future development in the vicinity is not anticipated at this time. As such, Year 2016 traffic demands along Sand Island Parkway are expected to remain similar to existing conditions.

**AM PEAK PERIOD**



**PM PEAK PERIOD**



Source: Wilson Okamoto Corporation



**SOEST AND METC FACILITIES AT SAND ISLAND**

**EXISTING TRAFFIC CONDITIONS**

FIGURE

3-5

#### Total Traffic Volumes With Project

Traffic volumes at the intersection of Sand Island Parkway with the Horizon Lines access road are expected to be similar to existing conditions with the development of the proposed SOEST and METC facility. As previously discussed, ambient growth in traffic is not expected along Sand Island Parkway and the proposed project is not expected to generate additional site-generated vehicles during the AM and PM peak periods. Hence, the Sand Island Parkway approaches of the intersection are expected to continue operating at LOS “B” or better during both peak periods while the Horizon Lines access road approach is expected to continue operating at LOS “C” during both peak periods. Similarly, the eastbound approach of the intersection is expected to continue operating at LOS “C” during both peak periods.

#### Recommendations

Based on the analysis of the traffic data, the following are the recommendations of the TIR to be incorporated in the project design.

1. Maintain sufficient sight distance for motorists to safely enter and exit the project driveway.
2. Provide adequate on-site loading and off-loading service areas and prohibit off-site loading operations.
3. Provide an adequate turn-around area for vehicles to maneuver on the project site to avoid reversing maneuvers onto public roadways.
4. Provide sufficient turning radii at all project driveways/roadways to avoid or minimize vehicle encroachments to oncoming traffic lanes.

#### Conclusion

Due to the closure of the UHMC at the Pier 45 SNUG Harbor Facility, SOEST is developing a new facility at Sand Island. The proposed facility and the adjacent METC facility are not expected to generate additional trips during the AM and PM peak periods. As such, with the implementation of the aforementioned recommendations, traffic operations with the proposed SOEST and METC facility are expected to remain similar to existing conditions.

### **3.11 Visual Resources**

The subject site is located in an industrial harbor area containing large commercial / industrial buildings, fuel tanks, and tall cranes used for container shipping operations. The existing METC facility is a two-story structure that is visible from the ocean, from Ke’ehi Lagoon, from various vantages within the immediate surrounding properties, and from areas with elevations exceeding 100 feet above sea level, including Punchbowl, Pacific Heights, Alewa Heights, Upper Kalihi, Tantalus/Roundtop, Diamond Head, and high-rise buildings along Ala Moana Boulevard and Nimitz Highway.

Within view planes from the urban coastal areas laterally down the shoreline or towards the sea, existing site features and facilities subordinate to the Harbor area’s much taller cargo facility loading cranes (approximately 250 feet in height) and consistent in appearance with other industrial facilities on Sand Island.

### Impacts and Mitigation Measures

The project is not expected to adversely affect scenic and visual resources in the project area. The proposed SOEST Laydown Area and Floating Dock will not degrade lateral coastal views or mauka-makai views from Sand Island Parkway, the Sand Island State Recreation Area, or other areas in the vicinity of the site. The vertical components of the Laydown Area will include fencing and security lighting standards, which will be consistent with the visual character of the surrounding industrial uses.

### 3.12 Socio-Economic Characteristics

The project site is located within the Kapālama Census Tract (CT 56). However, data from the Kamehameha Heights (CT 48), Palama (CT 55), Iwilei-Ānuenuē (CT 57), Waiakamilo Road (CT 58), Umi Street (CT 60), and Kalihi Waena (CT 61) are also presented since these communities are an integral part of the Kalihi-Palama District of O‘ahu. Demographic and other information was reviewed from the U.S. Census 2010 for the above listed CTs and the City and County of Honolulu and is shown on Table 3-1.

**Table 3-1**  
Demographic Characteristics

	KAMEHAMEHA HEIGHTS CT 48	PALAMA CT 55	KAPĀLAMA CT 56	IWILEI- ĀNUENUÉ CT 57	WAIAKAMILO ROAD CT 58	UMI STREET CT 60	KALIHI WAENA CT 61	CITY & COUNTY OF HONOLULU
Population	6,225	2,139	6,083	2,059	3,573	5,627	4,061	953,207
<b>INCOME</b>								
Median Household Income	\$85,567	\$50,694	\$46,008	\$35,294	\$32,051	\$71,725	\$90,517	\$72,292 (a)
Persons Below Poverty Level	11.5%	5.8%	12.4%	39.2%	28.8%	10.4%	2.5%	9.6%
<b>RACE</b>								
White	5.1%	2.5%	2.7%	14.1%	2.1%	1.4%	1.4%	22.4%
Black	0.4%	0.3%	0.4%	2.6%	0.4%	0.2%	0.3%	2.8%
American Indian	0.1%	0	0.1%	0.4%	0.2%	0	0	0.3%
Asian	59.8%	73.4%	78.4%	47.0%	65.0%	82.1%	81.3%	43.3%
Native Hawaiian	11.5%	13.0%	7.1%	18.5%	13.2%	8.0%	5.8%	9.6%
Two or More Races	22.7%	10.3%	10.8%	16.7%	18.3%	8.1%	10.8%	22.7%
<b>SOCIO-ECONOMIC CHARACTERISTICS</b>								
Population with High School Degree or Higher	81.9%	63.3%	73.3%	73.8%	64.4%	72.2%	76.1%	90.4%
Population with Bachelor's Degree or Higher	22.3%	13.7%	17.2%	13.9%	12.9%	8.4%	11.5%	31.5%
Foreign Born Population	30.1%	43.6%	49.2%	29.7%	57.6%	57.3%	54.1%	19.7%
Non-English Speaking Population	45.2%	56.1%	63.0%	39.2%	73.1%	68.8%	62.5%	28.1%
Owner-Occupied Housing Units	55.7%	32.0%	38.2%	17.6%	39.9%	31.7%	45.8%	56.4% (b)
Median Value of Owner-Occupied Units	\$604,100	\$395,200	\$448,800	\$412,700	\$259,700	\$387,600	\$613,400	\$557,810
Average Household Size	3.65	3.54	3.61	1.99	3.37	4.22	4.93	2.98 (c)

(a) - 2008-2012

(b) - Homeownership rate, 2008-2012

(c) - Persons per household

Source: U.S. Census Bureau, *American Fact Finder, Profile of General Population and Housing Characteristics: 2010*.  
U.S. Census Bureau, *Honolulu County: Quick Facts from the U.S. Census Bureau*.

Based upon the data presented in the table, the communities in the Kalihi District exhibit a range of incomes. The Kamehameha Heights (CT 48) and Kalihi Waena (CT 61) areas show higher median household incomes of \$85,567 and \$90,517, respectively. The Umi Street (CT 60) area has a median household income of \$71,725. The other areas exhibit lower median household incomes. Palama (CT 55) is at \$50,694. Kapālama (CT 56) is at \$46,008. Iwilei-ʻĀnuenue (CT 57) shows a median household income of \$35,294. Waiakamilo Road (CT 58) is at \$32,051. In comparison, median household income for the City and County of Honolulu as a whole is \$72,292.

Within the City and County of Honolulu as a whole, 9.6% of the population is considered below poverty level. The percentages are higher in Kamehameha Heights (11.5%), Kapālama (12.4%), Iwilei-ʻĀnuenue (39.2%), Waiakamilo Road (28.8%), and Umi Street (10.4%). However, Palama (5.8%) and Kalihi-Waena (2.5%) exhibit lower percentages than the City and County of Honolulu as a whole.

By racial mix, all the noted census tracts in the Kalihi District have higher percentages of Asian populations than the City and County of Honolulu as a whole. Asian populations range from a low of 47.0% in the Iwilei-ʻĀnuenue CT 57 to a high of 82.0 % in the Umi Street CT 60. Native Hawaiian individuals range from a low of 5.8% in Kalihi Waena CT 61 to a high of 18.5% within Iwilei-ʻĀnuenue CT 57. Within the City and County of Honolulu as a whole, individuals identified as Hawaiian comprise 9.6% of the population. Individuals of two or more races range from 8.1% within Umi Street CT 60 to 22.7% within Kamehameha Heights CT 48. The percentage of individuals identified as two or more races within the City as a whole is 22.7%. Except for the 14.1% white population in Iwilei-ʻĀnuenue CT 57, proportions of White, Black and American Indian are minimally represented in the subject census tracts.

Regarding socio-economic characteristics, percentages of persons who have obtained a high school degree or higher within the noted Kalihi District census tracts are below the percentages for the City and County of Honolulu as a whole. Persons with high school degrees or above ranged from 63.3% in Palama CT 55 to 81.9% in Kamehameha Heights CT 48. This compares to 90.4% for the City as a whole. Persons with a Bachelor's degree or higher within the noted Kalihi census tracts are also lower than the percentages of the City as a whole. Persons with Bachelor's degrees or above ranged from 8.4% in Umi Street CT 60 to 22.3% in Kamehameha Heights CT 48. Within the City and County of Honolulu, 31.5% of individuals have obtained a Bachelor's degree or a higher level degree.

Percentages of foreign born individuals as well as non-English speaking individuals are higher in all the noted Kalihi census tracts when compared to the City and County of Honolulu as a whole. Foreign born populations range from a low of 29.7% in the Iwilei-ʻĀnuenue CT 57 to a high of 57.6% in Waiakamilo Road CT 58. A total of 19.7% of the population of the City considered themselves foreign born. In the noted Kalihi census tracts, non-English speaking individuals ranged from a low of 39.2% in the Iwilei-ʻĀnuenue CT 57 to a high of 68.8% in Umi Street CT 60. Within the City and County of Honolulu as a whole, non-English speaking individuals total 28.1% of the population.

Percentages of owner-occupied housing units are lower in the noted Kalihi census tracts than the City and County of Honolulu as a whole. It ranges from a low of 17.6% in Iwilei-ʻĀnuenue CT 57 to 55.7% in Kamehameha Heights CT 48. Within the City, 56.4% of the

existing housing inventory is comprised of owner-occupied units. Median values for owner-occupied units are generally lower than the City as a whole. Kamehameha Heights CT 48 and Kalihi Waena CT 61 have median values above the City median of \$557,810. The remaining census tracts are below the median.

Regarding average household size, the noted Kalihi census tracts are generally higher than the City as a whole. With the exception of Iwilei-Ānuenue CT 57 which has an average household size of 1.99, the remaining census tracts range from 3.37 in Waiakamilo Road CT 58 to 4.93 in Kalihi Waena CT 61. The average household size in the City as a whole is 2.98.

### **Impacts and Mitigation Measures**

In the short-term, construction expenditures related to the project will provide positive benefits to the local economy. This would include creation of construction and construction support jobs, and the purchase of materials from local suppliers, as well as indirect benefits to local retail businesses resulting from construction activities.

In the long-term, the proposed project is a relocation of an existing use from a relatively nearby area. Therefore, it is not anticipated to have any identifiable impact on the socio-economic character of the area.

## **3.13 Public Services and Facilities**

### **3.13.1 Police Fire, and Medical Services**

Police protection is provided by the City and County of Honolulu Police Department (HPD). The project area is a part of District 5 – Kalihi, Sector 3, which covers the areas of Kalihi Kai, Palama and Sand Island. It is served by the Kalihi Substation located at 1865 Kamehameha IV Road, approximately 4.1 miles to the north of the project site.

Fire protection is provided by the City and County of Honolulu Fire Department (HFD). The project area is a part of Battalion 1 and is served by the Kalihi Kai Fire Station, which is located on Kalihi Street, approximately 2.5 miles from the project site.

Being in urban Honolulu, the project site is located within close proximity to several major medical facilities. Kuakini Medical Center, located at 347 North Kuakini Street, is approximately 4.5 miles to the southeast of the project site. Queen's Medical Center, located at 1301 Punchbowl Street, is approximately 4.9 miles to the southeast of the project site. Straub Clinic & Hospital, located at 888 South King Street, is approximately 6.1 miles to the southeast of the project site.

Emergency medical service is provided by the City's Emergency Services Department, Emergency Medical Services Division. The Department has 19 ambulance units and two Rapid Response units under two districts. All ambulance units are designated as advanced life support units, meaning they are staffed by at least two people. The project area is served by District 1, which includes the western region of O'ahu.

**Impacts and Mitigation Measures**

In the short- and long-term, no significant impacts on police, fire, and medical services are anticipated.

In the long-term, while the proposed project may require occasional police, fire, and medical support, the level of demand for those services would not represent a significant amount relative to overall regional demand. Moreover, since the proposed project would relocate an existing use from within the general area, it would shift the location of demand rather than increase demand for such services.

**3.13.2 Education**

The project site is located within the State Department of Education's (DOE) Honolulu District, and specifically within the Farrington Complex, which is served by Farrington High School. The Farrington Complex middle feeder schools include Dole Middle School and Kalakaua Middle School. Elementary feeder schools include Fern Elementary School, Kaewai Elementary School, Kalihi Elementary School, Kalihi Kai Elementary School, Kalihi Uka Elementary School, Kalihi Waena Elementary School, Kapālama Elementary School, Linapuni Elementary School, and Pu'uhale Elementary School.

**Impacts and Mitigation Measures**

In the short- and long-term, no significant impacts or increased demand on schools are anticipated. The proposed project is not anticipated to induce population growth and is, therefore, not expected to affect student enrollment at public school facilities in the area.

**3.13.3 Recreational Facilities**

Located on Sand Island at the entrance to Honolulu Harbor, the Sand Island State Recreation Area (SRA) is an approximately 141-acre coastal recreational area managed by the DLNR, Division of State Parks (DSP).

Sand Island was extensively used by the military during WWII for coastal defense with bunkers and lookout towers still present throughout the SRA. Sand Island was known as Quarantine Island during the nineteenth century when it was used to quarantine ships believed to hold contagious diseases. During World War II, Sand Island was used to camp Japanese-American citizens and foreign nationals from Germany, Italy, and other countries as part of the wartime effort.

Approximately 97 acres of the SRA at the east end of Sand Island adjacent to the Honolulu Harbor Channel, is existing developed park area. Facilities in this area include picnic tables, BBQs, campgrounds, open lawn passive recreation areas, baseball diamonds, exercise and play apparatus, multi-use paths, covered pavilions, shade trees, and comfort stations. The park provides a wide sand beach that is over a half-mile long.

The remaining approximately 44 acres of the SRA extends along the south and southwest facing shores of Sand Island, and includes lands adjacent to the project site. The area is relatively undeveloped.

Existing facilities include the METC, boat ramp, canoe pavilion, and parking at the mouth of the Kapālama Basin Kalihi Channel. The remaining area, comprising approximately 30 acres, is currently used as an off-highway vehicle (OHV) recreation area under a pilot project managed by the DLNR Na Ala Hele program.

The Ke'ehi Small Boat Harbor, owned and operated by the State and located across Kalihi Channel from the project site, provides more than 302 berths for recreational boaters as well as two boat launching ramps at opposite ends of the marina. There are approximately 300 additional vessels moored offshore in Ke'ehi Lagoon. Several private marina facilities are also located in the lagoon, including Ke'ehi Marine Center (126 berths) and La Mariana Sailing Club (65 berths).

#### **Impacts and Mitigation Measures**

In the short- and long-term, no significant impacts or increased demand on recreational facilities in the project vicinity are anticipated. The project is not anticipated to induce population growth and associated demands on recreational facilities and parks. Public access and use of the park and shoreline areas will remain unaffected by project activities. No mitigation measures are proposed or anticipated to be required.

### **3.13.4 Solid Waste Collection and Disposal**

Residential solid waste collection and disposal service is provided by the City and County of Honolulu Department of Environmental Services. Commercial solid waste collection and disposal service is provided by private haulers. Solid waste collected in the Honolulu area is hauled to the Campbell Industrial Park H-POWER Plant for incineration and eventual disposal at the Waimānalo Gulch Sanitary Landfill. Construction and demolition material is disposed of at the privately-owned PVT landfill in Nānākuli.

#### **Impacts and Mitigation Measures**

No short- or long-term significant impacts to municipal solid waste collection and disposal facilities are anticipated as a result of the construction and operation of the proposed project.

Construction of the proposed project will generate solid waste typical of building construction related activities over the short-term. The contractor will be required to remove all debris from the site, and properly dispose of it at the PVT landfill in conformance with County regulations.

The project is not anticipated to significantly affect the City's solid waste collection and disposal service.

### **3.14 Infrastructure and Utilities**

#### **3.14.1 Water System**

Water service to Sand Island is provided by the City and County of Honolulu Board of Water Supply (BWS) via two lines, a 12-inch line and a 16-inch line, which cross Kalihi Channel



from Kapālama. On Sand Island, the 16-inch line serves as the primary high pressure line. Service to Sand Island State Recreation Area is provided via the 12-inch line which comes off of the 16-inch line near the fixed-bascule bridge and runs parallel to the shore to Sand Island State Park.

**Impacts and Mitigation Measures**

In the short- and long- term, the project is not anticipated to result in significant increased demand on the water system in the area. Moreover, the project is not anticipated to induce population growth and associated demand on water.

**3.14.2 Wastewater System**

Wastewater service in the area is provided by the City and County of Honolulu Department of Environmental Services (ENV). The nearby Sand Island Wastewater Treatment Plant (WWTP) provides advance primary sewage treatment for wastewater generated in Honolulu. The Plant has a treatment design capacity of approximately 82 million gallons per day, and effluent from the plant is disposed of through an 84-inch ocean outfall which discharges more than two miles offshore of Sand Island. A 24" Army sewer line from the Fort Shafter Military Reservation runs under the project site to the Sand Island WWTP.

**Impacts and Mitigation Measures**

No significant impacts are anticipated regarding extent of wastewater flows on the existing wastewater system as a result of the construction and operation of the proposed improvements. Prior to construction, UH will work with the Department of Planning and Permitting Wastewater Branch on any appropriate improvements that may be required as a result of the developing and operating the proposed project and the applicable rules and regulations.

**3.14.3 Drainage System**

An existing 24-inch drain line is used to collect runoff along Sand Island Parkway. This system connects to a larger 60-inch line which is routed to an outlet for disposal into Kalihi Channel near the bascule bridge. There are no drainage inlets along the access road bordering the southwest side of the project site, except for a grated inlet in the road where it intersects the road between the METC and the proposed Laydown Area. Based on vegetation growing on the project site, rainfall on the project site appears to drain toward the borders along Sand Island Parkway and the access road to the southwest. A low spot appears to be located in the future expansion area where vegetation along the access road extends well into the site.

**Impacts and Mitigation Measures**

No short- or long-term significant impacts on the quantity or quality of drainage in the project vicinity are anticipated during construction or operation of the proposed project. There are no streams or wetlands on or within close proximity to the project site. Construction of the proposed project will not involve major land disturbing activities. Applicable erosion control measures and best management practices will be implemented in order to mitigate any possible adverse effects relating to runoff. As applicable for each phase, these may include but are not be limited to: temporary sediment basins, temporary diversion berms and swales to intercept runoff, silt

fences, dust fences, slope protection, stabilized construction vehicle entrance, grate inlet protection, truck wash down areas, and use of compost filter socks. Planting of landscaping also will be done as soon as possible on completed areas to help control erosion. Permanent sediment control measures will be used once construction is completed.

Coordination will be undertaken with the appropriate agencies during permitting and construction in order to ensure that the proposed project will not result in significant impacts with regard to surface and coastal waters. A National Pollutant Discharge Elimination System (NPDES) permit for storm water runoff from construction activities would be required as individual and/or cumulative soil disturbances on the project site will exceed one acre of land area. Any discharges related to project construction or operation activities will comply with applicable State Water Quality Standards as specified in Hawai'i Administrative Rules, Chapter 11-54 and 11-55 Water Pollution Control, Department of Health. Excavation and grading activities will be regulated by applicable provisions of the County's grading ordinance.

In the long-term, construction of the Laydown Area and its subsequent expansion will create impermeable paved surfaces that would reduce the area available on the project site for runoff to percolate into the ground. The drainage system for the proposed project will be designed to receive and detain or retain flows to allow percolation to occur within the project site such that no additional volume of discharge from the property would occur.

#### **3.14.4 Electrical and Communications Systems**

Electrical power on the island of O'ahu is provided by Hawaiian Electric Company (HECO). A significant electrical source for the project area is the Downtown Power Plant.

Telephone service in the area is provided by Hawaiian Telcom.

Oceanic Time Warner Cable of Hawai'i is the island's primary CATV provider.

#### **Impacts and Mitigation Measures**

In the short- and long-term, the proposed project is not anticipated to impact or increase overall demand on electrical and communication systems in the area.

(This page intentionally left blank)

#### 4. RELATIONSHIP TO PLANS, POLICIES, AND CONTROLS

This section discusses the State and City and County of Honolulu land use plans, policies and controls relating to the proposed project.

##### 4.1 State Land Use Plans and Policies

###### 4.1.1 Hawai'i State Plan

The Hawai'i State Plan, Chapter 226, HRS, provides goals, objectives, policies, and priorities for the State. The Hawai'i State Plan also provides a basis for determining priorities, allocating limited resources, and improving coordination of State and County Plans, policies, programs, projects, and regulatory activities. It establishes a set of themes, goals, objectives, and policies that are meant to guide the State's long-range growth and development activities. The proposed project is consistent with the following applicable objectives and policies:

*Sec. 226-11 Objectives and policies for the physical environment – land-based, shoreline, and marine resources.*

- (a) *Planning for the State's physical environment with regard to land-based shoreline, and marine resources shall be directed towards achievement of the following objectives:*
  - (1) *Prudent use of Hawai'i's land-based, shoreline, and marine resources.*
  - (2) *Effective protection of Hawai'i's unique and fragile environmental resources.*
- (b) *To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to:*
  - (3) *Take into account the physical attributes of areas when planning and designing activities and facilities.*
  - (4) *Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.*
  - (6) *Encourage the protection of rare or endangered plant and animal species and habitats native to Hawai'i.*
  - (8) *Pursue compatible relationships among activities, facilities, and natural resources.*

#### **Discussion:**

The proposed project is located directly on the shoreline along the Kalihi Channel of Honolulu Harbor at the northwest end of Sand Island.

No short- or long-term significant impacts on surface and/or coastal waters in the project vicinity are anticipated during construction or operation of the proposed project. There are no streams or wetlands on or within close proximity to the project site. Construction of the proposed project will not involve major land disturbing activities. Applicable erosion control measures and best management practices will be implemented in order to mitigate any possible adverse effects relating to runoff. As applicable for each phase, these may include but are not be limited to: temporary sediment basins, temporary diversion berms and swales to intercept runoff, silt fences, dust fences, slope protection, stabilized construction vehicle entrance, grate inlet protection, truck wash down areas, and use of compost filter socks. Planting of landscaping also will be done as soon as possible on completed areas to help control erosion. Permanent sediment control measures will be used once construction is completed.

Coordination will be undertaken with the appropriate agencies during permitting and construction in order to ensure that the proposed project will not result in significant impacts with regard to surface and coastal waters. A National Pollutant Discharge Elimination System (NPDES) permit for storm water runoff from construction activities would be required as individual and/or cumulative soil disturbances on the project site will exceed one acre of land area. Any discharges related to project construction or operation activities will comply with applicable State Water Quality Standards as specified in Hawai'i Administrative Rules, Chapter 11-54 and 11-55 Water Pollution Control, Department of Health. Excavation and grading activities will be regulated by applicable provisions of the County's grading ordinance.

Installation of the floating dock will also require a Department of the Army permit under Section 10 of the federal Rivers and Harbors Act. While the permit addresses navigational considerations, as a federal permit, it provides opportunities for the Corps of Engineers, the agency processing the permit, to pursue any warranted consultation with other federal agencies. This may include consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the federal Endangered Species Act (ESA) and consultation with the National Oceanic and Atmospheric Administration (National Marine Fisheries Service) pursuant to the Magnuson Stevens Act (Essential Fish Habitat) and the federal Marine Mammals Act.

No listed or protected plant species are known from the project area. Rare, threatened, or endangered fauna are not known to utilize the site for either habitat or foraging purposes. Since the proposed project includes work in marine waters there is a potential for ESA-listed species to be directly exposed to project-related activity. Sea turtles and marine mammals typically avoid human activity, so exposure to such activity and equipment operation would be infrequent and non-injurious, resulting in insignificant effects on the ESA-listed marine species. Additionally, protected species BMPs require that the project manager and contractor reduce the likelihood of interactions by watching for and avoiding protected species before commencing work and by postponing or halting operations when protected species are within 50 yards of project activities (USACE, 2012). Once project activities are complete, faunal activity in the vicinity of the work site is expected to return to pre-existing conditions.

*Sec. 226-21 Objectives and policies for socio-cultural advancement – education.*

- (a) *Planning for the State’s socio-cultural advancement with regard to education shall be directed towards achievement to the objective of the provision of a variety of educational opportunities to enable individuals to fulfill their needs, responsibilities, and aspirations.*
- (b) *To achieve the educational objective, it shall be the policy of this State to:*
  - (2) *Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs;*
  - (5) *Provide higher educational opportunities that enable Hawaii’s people to adapt to changing employment demands;*
  - (6) *Emphasize equality in educational programs in Hawaii’s institutions to promote academic excellence; and*
  - (9) *Support research programs and activities that enhance the education programs of the State.*

**Discussion:**

The proposed project will allow UH SOEST to continue its operations, and will not adversely affect HCC’s operation of the METC facility. Both UH and HCC provide a range of higher educational opportunities that enable students to adapt to changing employment demands, and support research programs and activities that enhance statewide educational programs and initiatives.

**4.1.2 State Land Use District**

The State Land Use Law, Chapter 205, HRS, is intended to preserve, protect and encourage the development of lands in the State for uses that are best suited to the public health and welfare of Hawai’i’s people. Under Chapter 205, HRS, all lands in the State of Hawai’i are classified by the State Land Use Commission (LUC) into one of four major categories of State Land Use Districts. These districts are identified as the Urban District, Agricultural District, Conservation District, and Rural District.

**Discussion:**

The LUC’s Land Use District Boundary map for the Island of O’ahu depicts the lands within the project area as being designated within the State Urban District. Pursuant to Section 205-2(b), HRS, Urban Districts shall include activities or uses as provided by ordinances or regulations of the county in which the Urban District is situated (See Section 4.2 City and County of Honolulu Land Use Plans and Policies).

The proposed floating dock will be located seaward of the shoreline fronting the METC, which is by definition in the State Conservation District, Resource Subzone.



Therefore, installation of the floating dock will require approval of a Conservation District Use Application (CDUA) by the Board of Land and Natural Resources.

#### 4.1.3 Hawai'i Coastal Zone Management Program

The National Coastal Zone Management (CZM) Program was created through passage of the Coastal Zone Management Act of 1972. Hawaii's Coastal Zone Management (CZM) Program, established pursuant to Chapter 205A, HRS, as amended, is administered by the State Office of Planning (OP) and provides for the beneficial use, protection and development of the State's coastal zone. The objectives and policies of the Hawaii CZM Program encompass broad concerns such as impact on recreational resources, historic and archaeological resources, coastal scenic resources and open space, coastal ecosystems, coastal hazards, and the management of development. The Hawai'i CZM area includes all lands within the State and the areas seaward to the extent of the State's management jurisdiction. Hence, the proposed project site is located in the CZM area. A discussion of the project's consistency with the objectives and policies of the CZM Program is provided below.

##### (1) *Recreational Resources*

Objective:

*Provide coastal recreational opportunities accessible to the public.*

Policies:

- (A) *Improve coordination and funding of coastal recreational planning and management; and*
- (i) *Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by: Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;*
  - (ii) *Requiring replacement of coastal resources having significant recreational value, including but not limited to surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the state for recreation when replacement is not feasible or desirable;*
  - (iii) *Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;*
  - (iv) *Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;*
  - (v) *Ensuring public recreational use of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources; Adopting water quality standards and regulating point and nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters.*
  - (vi) *Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and*
  - (vii) *Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the*

*land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of section 46-6.*

**Discussion:**

The proposed project is located directly on the shoreline along the Kalihi Channel of Honolulu Harbor at the northwest end of Sand Island.

No short- or long-term significant impacts on surface and/or coastal waters in the project vicinity are anticipated during construction or operation of the proposed project. There are no streams or wetlands on or within close proximity to the project site. Construction of the proposed project will not involve major land disturbing activities. Applicable erosion control measures and best management practices will be implemented in order to mitigate any possible adverse effects relating to runoff. As applicable for each phase, these may include but are not be limited to: temporary sediment basins, temporary diversion berms and swales to intercept runoff, silt fences, dust fences, slope protection, stabilized construction vehicle entrance, grate inlet protection, truck wash down areas, and use of compost filter socks. Planting of landscaping also will be done as soon as possible on completed areas to help control erosion. Permanent sediment control measures will be used once construction is completed.

Coordination will be undertaken with the appropriate agencies during permitting and construction in order to ensure that the proposed project will not result in significant impacts with regard to surface and coastal waters. A National Pollutant Discharge Elimination System (NPDES) permit for storm water runoff from construction activities would be required as individual and/or cumulative soil disturbances on the project site will exceed one acre of land area. Any discharges related to project construction or operation activities will comply with applicable State Water Quality Standards as specified in Hawai'i Administrative Rules, Chapter 11-54 and 11-55 Water Pollution Control, Department of Health. Excavation and grading activities will be regulated by applicable provisions of the County's grading ordinance.

Public access to the shoreline will not be affected by the proposed project.

(2) Historic Resources

Objective:

- (A) *Protect, preserve and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.*

Policies:

- (A) *Identify and analyze significant archaeological resources;*  
(B) *Maximize information retention through preservation of remains and artifacts or salvage operations; and*  
(C) *Support state goals for protection, restoration, interpretation, and display of historic resources.*

**Discussion:**

The proposed project is not expected to result in potential for negative adverse effects on archaeological resources as no historic properties were identified by an archaeological assessment conducted for the proposed project. Therefore, the archaeological assessment offered a specific effect recommendation of “no historic properties affected”, which has yet to be approved by the State Historic Preservation Division. In the event of unexpected discovery of historic or archaeological resources, however, the State Historic Preservation Division will be immediately notified for appropriate response and action.

**(3) Scenic and Open Space Resources****Objective:**

- (A) *Protect, preserve, and where desirable, restore or improve the quality of coastal scenic and open space resources.*

**Policies:**

- (A) *Identify valued scenic resources in the coastal zone management area;*  
(B) *Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;*  
(C) *Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and*  
(D) *Encourage those developments which are not coastal dependent to locate in inland areas.*

**Discussion:**

The project is not expected to adversely affect scenic and visual resources in the project area. The proposed SOEST Laydown Area and Floating Dock will not degrade lateral coastal views or mauka-makai views from Sand Island Parkway, the Sand Island State Recreation Area, or other areas in the vicinity of the site. The vertical components of the Laydown Area will include fencing and security lighting standards, which will be consistent with the visual character of the surrounding industrial uses.

**(4) Coastal Ecosystems****Objective:**

- (A) *Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.*

**Policies:**

- (A) *Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;*  
(B) *Improve the technical basis for natural resource management;*  
(C) *Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;*

- (D) *Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and*
- (E) *Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.*

**Discussion:**

The proposed project is located directly on the shoreline along the Kalihi Channel of Honolulu Harbor at the northwest end of Sand Island.

No short- or long-term significant impacts on surface and/or coastal waters in the project vicinity are anticipated during construction or operation of the proposed project. There are no streams or wetlands on or within close proximity to the project site. Construction of the proposed project will not involve major land disturbing activities. Applicable erosion control measures and best management practices will be implemented in order to mitigate any possible adverse effects relating to runoff. As applicable for each phase, these may include but are not be limited to: temporary sediment basins, temporary diversion berms and swales to intercept runoff, silt fences, dust fences, slope protection, stabilized construction vehicle entrance, grate inlet protection, truck wash down areas, and use of compost filter socks. Planting of landscaping also will be done as soon as possible on completed areas to help control erosion. Permanent sediment control measures will be used once construction is completed.

Coordination will be undertaken with the appropriate agencies during permitting and construction in order to ensure that the proposed project will not result in significant impacts with regard to surface and coastal waters. A National Pollutant Discharge Elimination System (NPDES) permit for storm water runoff from construction activities would be required as individual and/or cumulative soil disturbances on the project site will exceed one acre of land area. Any discharges related to project construction or operation activities will comply with applicable State Water Quality Standards as specified in Hawai'i Administrative Rules, Chapter 11-54 and 11-55 Water Pollution Control, Department of Health. Excavation and grading activities will be regulated by applicable provisions of the County's grading ordinance.

**(5) Economic Uses****Objective:**

- (A) *Provide public or private facilities and improvements important to the State's economy in suitable locations.*

**Policies:**

- (A) *Concentrate coastal dependent development in appropriate areas;*
- (B) *Ensure that coastal dependent developments such as harbors and ports, and coastal related development such as visitor facilities and energy generating*

- facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and*
- (C) *Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:*
- (i) Use of presently designated locations is not feasible;*
  - (ii) Adverse environmental effects are minimized; and*
  - (iii) The development is important to the State's economy.*

**Discussion:**

In the short-term, construction expenditures will provide positive benefits to the local economy. This would include creation of some construction and construction support jobs, and the purchase of materials from local suppliers, as well as indirect benefits to local retail businesses resulting from construction activities.

In the long-term, the proposed project will provide the opportunity for UH and HCC to continue to offer a variety of education programs which will help students to attain higher educational and workforce development goals that may benefit the State's economy.

(6) Coastal Hazards

Objectives:

- (A) *Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.*

Policies:

- (A) *Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;*
- (B) *Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint pollution hazards;*
- (B) *Ensure that developments comply with requirements of the Federal Flood Insurance Program;*
- (C) *Prevent coastal flooding from inland projects.*

**Discussion:**

According to the Flood Insurance Rate Map (FIRM), (Community Panel Number 0353G) prepared by FEMA, the project site is designated Zone X, an area determined to be outside of the 0.2% annual chance floodplain. There are no base flood elevations or depths shown within this zone.

In the short- and long-term, no significant impacts on flood hazards in the project area are anticipated as the proposed improvements are not anticipated to increase flood risks or cause any adverse flood-related impacts at the project site or lower elevation properties.

(7) Managing Development

Objective:

- (A) *Improve the development review process, communication, and public participation in the management of coastal resource and hazards.*

Policies:

- (A) *Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;*
- (B) *Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements; and*
- (C) *Communicate the potential short- and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning and review process.*

**Discussion:**

The Hawai'i State environmental review process, Chapter 343, HRS, provides opportunities for project review by government agencies and affords the public the opportunity to provide comments on the proposed project. The proposed project will also require a Special Management Area permit that will evaluate its consistency with the CZM objectives and policies and require a public hearing.

(8) Public Participation

Objective:

- (A) *Stimulate public awareness, education, and participation in coastal management.*

Policies:

- (A) *Promote public involvement in coastal zone management processes;*
- (B) *Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and*
- (C) *Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.*

**Discussion:**

The Hawai'i State environmental review process, Chapter 343, HRS, provides opportunities for project review by government agencies and affords the public the opportunity to provide comments on the proposed project. The proposed project will also require a Special Management Area permit that will evaluate its consistency with the CZM objectives and policies and require a public hearing.



(9) Beach Protection

Objective:

- (A) *Protect beaches for public use and recreation.*

Policies:

- (A) *Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;*
- (B) *Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and*
- (C) *Minimize the construction of public erosion-protection structures seaward of the shoreline.*

**Discussion:**

The Kalihi Channel is a man-made shoreline fronting the METC. The proposed floating dock is not an erosion-protection structure and no hardening of the shoreline is proposed.

(10) Marine Resources

Objective:

- (A) *Promote the protection, use, and development of marine and coastal resources to assure their sustainability.*

Policies:

- (D) *Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;*
- (E) *Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;*
- (F) *Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;*
- (G) *Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and*
- (H) *Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.*

**Discussion:**

The proposed project is located directly on the shoreline along the Kalihi Channel of Honolulu Harbor at the northwest end of Sand Island.

No short- or long-term significant impacts on surface and/or coastal waters in the project vicinity are anticipated during construction or operation of the proposed project. There are no streams or wetlands on or within close proximity to the project site. Construction of the proposed project will not involve major land disturbing activities. Applicable erosion control measures and best management practices will be implemented in order to mitigate any possible adverse effects relating to runoff. As applicable for each phase, these may include but are not be limited to: temporary sediment basins, temporary diversion berms and swales to intercept runoff, silt fences, dust fences, slope protection, stabilized construction vehicle entrance, grate inlet protection, truck wash down areas, and use of compost filter socks. Planting of landscaping also will be done as soon as possible on completed areas to help control erosion. Permanent sediment control measures will be used once construction is completed.

Coordination will be undertaken with the appropriate agencies during permitting and construction in order to ensure that the proposed project will not result in significant impacts with regard to surface and coastal waters. A National Pollutant Discharge Elimination System (NPDES) permit for storm water runoff from construction activities would be required as individual and/or cumulative soil disturbances on the project site will exceed one acre of land area. Any discharges related to project construction or operation activities will comply with applicable State Water Quality Standards as specified in Hawai'i Administrative Rules, Chapter 11-54 and 11-55 Water Pollution Control, Department of Health. Excavation and grading activities will be regulated by applicable provisions of the County's grading ordinance.

Installation of the floating dock will also require a Department of the Army permit under Section 10 of the federal Rivers and Harbors Act. While the permit addresses navigational considerations, as a federal permit, it provides opportunities for the Corps of Engineers, the agency processing the permit, to pursue any warranted consultation with other federal agencies. This may include consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the federal Endangered Species Act (ESA) and consultation with the National Oceanic and Atmospheric Administration (National Marine Fisheries Service) pursuant to the Magnuson Stevens Act (Essential Fish Habitat) and the federal Marine Mammals Act.

No listed or protected plant species are known from the project area. Rare, threatened, or endangered fauna are not known to utilize the site for either habitat or foraging purposes. Since the proposed project includes work in marine waters there is a potential for ESA-listed species to be directly exposed to project-related activity. Sea turtles and marine mammals typically avoid human activity, so exposure to such activity and equipment operation would be infrequent and non-injurious, resulting in insignificant effects on the ESA-listed marine species. Additionally, protected species BMPs require that the project manager and contractor reduce the likelihood of interactions by watching for and avoiding protected species before commencing work and by postponing or halting operations when protected species are within 50 yards of project activities (USACE, 2012). Once project activities are complete, faunal activity in the vicinity of the work site is expected to return to pre-existing conditions.

## 4.2 City and County of Honolulu Land Use Plans and Policies

### 4.2.1 City and County of Honolulu General Plan

The City and County of Honolulu last updated its General Plan in October of 2002. The General Plan for the City and County of Honolulu is a written commitment by the City and County government to a future for the Island of O‘ahu that it considers desirable and attainable. The Plan is a two-fold document: First, it is a statement of the long-range social, economic, environmental, and design objectives for the general welfare and prosperity of the people of O‘ahu. These objectives contain both statements of desirable conditions to be sought over the long run and statements of desirable conditions that can be achieved within an approximately 20-year time horizon. Second, the General Plan is a statement of broad policies that facilitate the attainment of the objectives of the Plan.

The General Plan is a guide for all levels of government, private enterprise, neighborhood and citizen groups, organizations, and individual citizens in eleven areas of concern:

- (1) Population;
- (2) Economic activity;
- (3) Natural environment;
- (4) Housing,
- (5) Transportation and utilities;
- (6) Energy;
- (7) Physical development and urban design;
- (8) Public safety;
- (9) Health and education;
- (10) Culture and recreation; and
- (11) Government operations and fiscal management.

The proposed project is relevant and consistent with the following applicable goals, objectives, policies, and actions of the *City and County of Honolulu General Plan*:

#### **VII. Health and Education**

##### **Objective B**

*To provide a wide range of educational opportunities for the people of O‘ahu*

##### *Policy 4*

*Encourage the construction of school facilities that are designed for flexibility and high levels of use.*

##### *Policy 5*

*Facilitate the appropriate location of learning institutions from the preschool through the university levels.*

##### **Discussion:**

In the long-term, the proposed project will provide an opportunity for UH and HCC to individually as well as collaboratively develop and offer a marine-focused curriculum

that will provide both specialized and diverse educational opportunities to the people of Hawai'i and the island of O'ahu.

#### **4.2.2 Primary Urban Center Development Plan**

The project site is located within the Primary Urban Center (PUC) Development Plan (DP) area, which extends from downtown Honolulu to Pearl City in the west to Waialae- Kahala in the east. The PUC is home to almost half of Oahu's population and three quarters of all jobs. The *Primary Urban Center Development Plan* (June 2004) provides a vision for the PUC in the areas of land use, transportation, infrastructure, and public facilities. It also provides policies and guidelines for achieving that vision. The City's Land Use Map indicates that the project site lands are designated for Institutional uses. The proposed project is consistent with the following guidelines, policies and principles contained in the PUC Development Plan:

##### 4.7 School and Library Facilities

###### *4.7.2 Policies:*

- *Support the development of a high quality educational system of schools and post-secondary institutions that increase the attractiveness of the Primary Urban Center as a place to live and work.*
- *Work with the Department of Education to develop innovative shared-use facilities, particularly on City-owned properties.*

###### **Discussion:**

In the long-term, the proposed project will provide an opportunity for UH and HCC to individually as well as collaboratively develop and offer a marine-focused curriculum that will provide both specialized and diverse educational opportunities to the people of Hawai'i and the island of O'ahu.

#### **4.2.3 City and County of Honolulu Zoning**

The purpose and intent of the City and County of Honolulu Land Use Ordinance is to regulate land use in a manner that will encourage orderly development in accordance with adopted land use policies, including the O'ahu General Plan and development plans, and to promote and protect the public health, safety, and welfare.

###### **Discussion:**

According to the City and County of Honolulu Department of Planning and Permitting (DPP), the project site is zoned General Preservation (P-2). See Figure 4-1. As a "public use and structure" within the P-2 District, it is considered a permitted use.

#### **4.2.4 City and County of Honolulu Special Management Area**

Pursuant to the Hawai'i CZM Program, Chapter 205A, HRS, the counties have enacted ordinances establishing Special Management Areas (SMA). The City and County of Honolulu enacted its SMA ordinance as Chapter 25, Revised Ordinances of Honolulu. Any "development" within its geographically defined SMA (See Figure 4-2) with a valuation greater than \$500,000 requires an SMA Use Permit. The permit is processed by the Department of Planning and Permitting, requires a public hearing and must be approved by

the Honolulu City Council by resolution. Proposed developments are evaluated for consistency with with the previously discussed CZM objectives and policies as well as SMA guidelines set forth in Chapter 205A, HRS.

**Discussion:**

The proposed project site is located within the SMA and will, therefore, require an SMA Use Permit.

**4.3 Permits and Approvals**

The following is a list of permits, approvals, and reviews that may be required prior to construction and operation of the proposed project.

Federal

U.S. Army Corps of Engineers

- Department of the Army permit – Section 10, Rivers and Harbors Act

State of Hawai'i

Department of Land and Natural Resources

- Conservation District Use Permit
- Chapter 6E, HRS, State Historic Preservation Law

Department of Health

- National Pollutant Discharge Elimination System

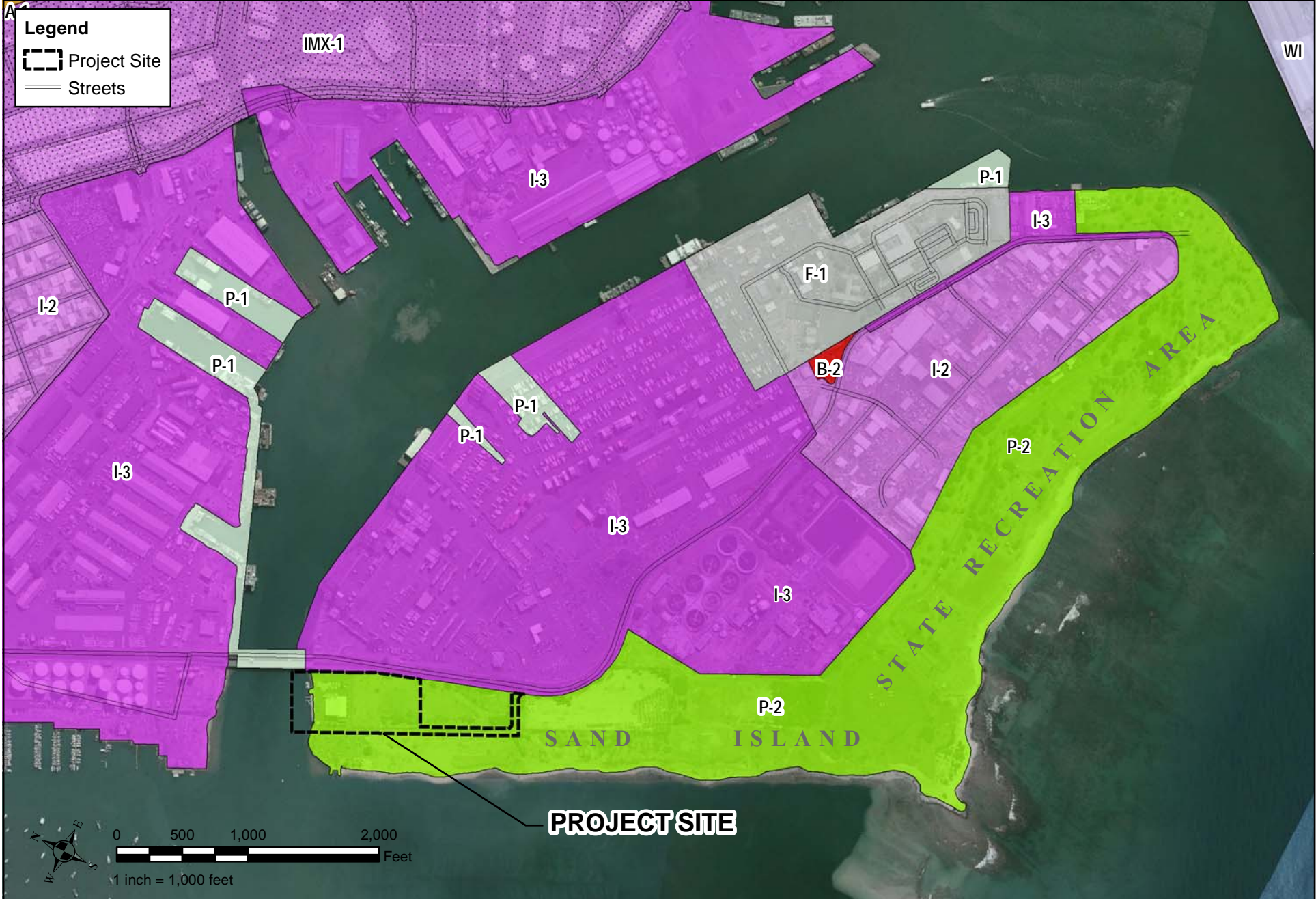
Department of Accounting and General Services

- Shoreline Certification

City and County of Honolulu

Department of Planning and Permitting

- SMA Permit
- Shoreline Setback Variance
- Zoning Waiver
- Building Permit
- Grading Permit/Trenching Permit

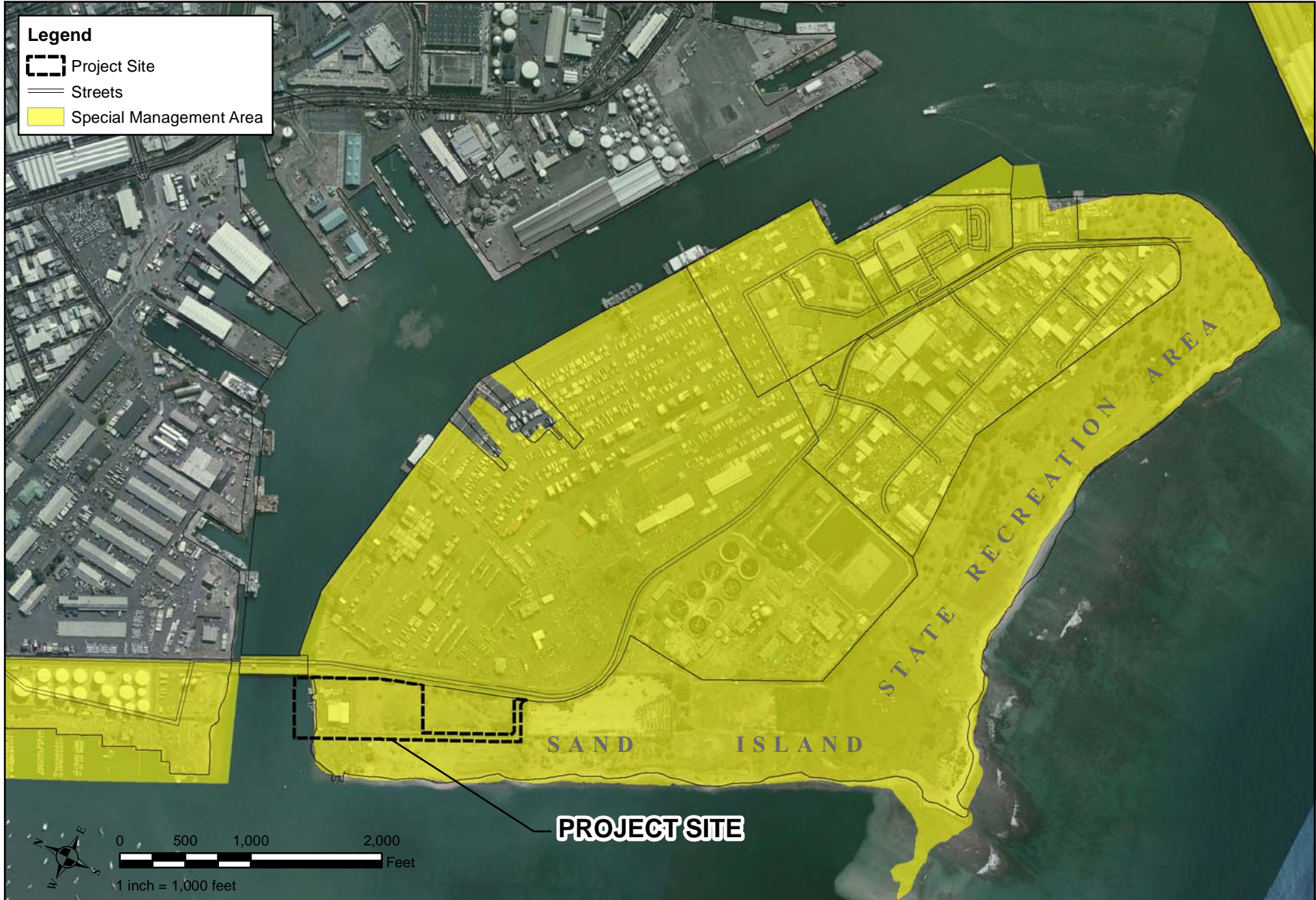


SOEST AND METC FACILITIES AT SAND ISLAND

ZONING MAP

FIGURE 4-1





SOEST AND METC FACILITIES AT SAND ISLAND

SPECIAL MANAGEMENT AREA MAP

FIGURE

4-2

## **5. ALTERNATIVES ELIMINATED FROM CONSIDERATION**

Hawai'i Administrative Rules (HAR) § 11-200-10 (1996) requires an environmental assessment to identify and consider alternative means to realize the purpose and need of the proposed action.

Relocating the UHMC within Honolulu Harbor and fulfilling the Legislature's request to meet the UHMC's displaced facility requirements constrains potential alternative approaches. Alternatives eliminated from consideration include no action, delayed action, relocation of all UHMC activities to the proposed SOEST and METC Facilities at Sand Island, and alternate locations in Honolulu Harbor or other state harbors.

### **5.1 No Action Alternative**

Under the No Action Alternative, the approximately 4.6 acre undeveloped lot would remain in its current unimproved condition and the existing floating dock fronting the METC would be maintained in place. Upon the closure of the UHMC at Snug Harbor, small boat activities would cease until a base of operations can be established elsewhere. This would significantly hinder the growth and operations of the UHMC program. The UH is opposed to no action and has agreed in principle to the relocation of the UHMC.

The no-action alternative would preclude permit approval, as well as costs for design and construction which would otherwise be required for the proposed project improvements. The no-action alternative would also avoid insignificant environmental impacts that would occur as a result of implementing the proposed project along with appropriate mitigation measures, as discussed in Chapter 3.

This alternative would fail to satisfy the purpose and need of the proposed action, and thus is not a feasible alternative.

### **5.2 Full Relocation of UHMC to Sand Island**

Initially, UH proposed to relocate all UHMC operations to the northwest corner of Sand Island under a DLNR lease that would co-locate the entire UH marine program with the HCC-METC. In order to accommodate UHMC large ship operations, this alternative would require construction of a new facility, floating pier, and dredging of the harbor.

The projected cost to immediately relocate all UHMC operations to a new facility at Sand Island would be approximately \$100 million, which is significantly greater than the cost of the split relocation outlined under the preferred alternative. This alternative would have potentially greater environmental effects as it would likely require new construction and dredging. Consequently, it was eliminated as an alternative.

### **5.3 Alternative Location in Honolulu Harbor**

Alternative piers in Honolulu Harbor were considered and eliminated because the locations do not meet UHMC or DOT Harbor operational requirements.

#### **5.4 Alternative Location at other State Harbors**

Alternative harbors on O‘ahu, Maui, Hawai‘i Island, or other islands were considered and eliminated because the locations do not have space to accommodate the UHMC and the construction of such required space at an alternative site is not financially feasible at this time.

## 6. ANTICIPATED DETERMINATION OF FONSI

The proposed project involves the following improvements:

Potential impacts of the proposed improvements have been evaluated in accordance with the significance criteria of §11-200-12 of the Department of Health's Administrative Rules. Discussion of the project's conformance to the criteria is presented as follows:

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

No natural or cultural resources of significance were identified on the proposed project site. In the event of unexpected discovery of historic or archaeological resources, the SHPD will be immediately notified for appropriate response and action.

- (2) *Curtails the range of beneficial uses of the environment;*

The proposed project will not curtail the range of beneficial uses of the environment. Development of the proposed laydown area and installation of the proposed floating dock will not restrict or hamper other beneficial uses that may choose to locate in the vicinity or elsewhere.

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

The proposed project does not conflict with the long-term environmental policies, goals, and guidelines of the State of Hawai'i. As presented in this EA, any potential temporary impacts associated with short-term construction-related activities will be mitigated through adherence to standard construction impact mitigation practices.

- (4) *Substantially affects the economic or social welfare of the community or state;*

In the short term, construction expenditures will provide positive benefits to the local economy. This would include creation of some construction and construction support jobs, and the purchase of materials from local suppliers, as well as indirect benefits to local retail businesses resulting from construction activities, but not at a level that would generate any significant population expansion.

In the long-term, the proposed project will provide the opportunity for UH SOEST to continue to offer its students a range of college, career and vocational readiness opportunities which can help to boost academic achievement.

- (5) *Substantially affects public health;*

No identifiable adverse short- or long-term impacts on public-health are anticipated to result from the construction and operation of the proposed project. Typical short-term construction-related impacts (e.g., noise and air quality) are anticipated, however, they will be temporary in nature and will comply with State and County regulations.

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

Substantial impacts to public facilities are not anticipated to result from the construction and operation of the proposed project. Moreover, the proposed project is not anticipated to induce population growth in the area or region. Existing public water, wastewater, drainage, and utility infrastructure have served the urban/industrial center of Sand Island for many years, and are expected to have sufficient capacity to serve project demands. Agencies with jurisdiction over their respective infrastructure systems will be consulted as the project proceeds to assure that it can be accommodated.

- (7) *Involves a substantial degradation of environmental quality;*

The proposed project is not anticipated to substantially degrade environmental quality. Long-term impacts to air and water quality, noise levels and natural resources will be minimal. Typical short-term construction-related impacts (e.g., noise and air quality) are anticipated, but will be temporary and will comply with State and County regulations.

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

The proposed action does not have a considerable effect upon the environment. There are no commitments for further action beyond the scope presented within this EA.

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

Installation of the floating dock will also require a Department of the Army permit under Section 10 of the federal Rivers and Harbors Act. While the permit addresses navigational considerations, as a federal permit, it provides opportunities for the Corps of Engineers, the agency processing the permit, to pursue any warranted consultation with other federal agencies. This may include consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the federal Endangered Species Act (ESA) and consultation with the National Oceanic and Atmospheric Administration (National Marine Fisheries Service) pursuant to the Magnuson Stevens Act (Essential Fish Habitat) and the federal Marine Mammals Act.

No listed or protected plant species are known from the project area. Rare, threatened, or endangered fauna are not known to utilize the site for either habitat or foraging purposes. Since the proposed project includes work in marine waters there is a potential for ESA-listed species to be directly exposed to project-related activity. Sea turtles and marine mammals typically avoid human activity, so exposure to such activity and equipment operation would be infrequent and non-injurious, resulting in insignificant effects on the ESA-listed marine species. Additionally, protected species BMPs require that the project manager and contractor reduce the likelihood of interactions by watching for and avoiding protected species before commencing work and by postponing or halting operations when protected species are within 50 yards

of project activities (USACE, 2012). Once project activities are complete, faunal activity in the vicinity of the work site is expected to return to pre-existing conditions.

Although there is no evidence of migratory seabirds and native waterfowl species using the project site for breeding or habitation, some are known to visit areas within the wider project study area. No adverse impacts resulting from the project are anticipated. However, measures to prevent adverse effects to avifauna from night lighting will include the following:

- During construction activities, all nighttime lighting will be shielded and angled downward to reduce glare and disruption of bird flight.
- Following construction, permanent light sources will be shielded and angled downward to eliminate glare that could disturb or disorient animals.

The nearshore environment of the proposed floating dock location supports a marine assemblage poor in species and numbers. This finding is consistent with previous surveys of this area of Honolulu Harbor (AECOS, 2007, 2009, 2010, 2014). The placement of a floating dock over the seafloor fronting Sand Island may have some impacts to the extant marine biological community, but no listed or rare biological resources currently exist at the proposed location. Special consideration may be necessary for the bed of seagrass observed in the Project vicinity.

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

No long-term significant impacts to air quality, water quality, or noise levels within the project site are anticipated as a result of the construction and operation of the proposed project.

In the short- and long-term, no significant impacts on air quality are anticipated as a result of the construction and operation of the proposed project. A portion of the construction for the proposed project will involve fine grading as well as limited excavation for utility lines and fencing. Fugitive dust will be controlled, as required, by methods such as dust fences, water spraying and sprinkling of loose or exposed soil or ground surface areas. As deemed appropriate, planting of landscaping will be done as soon as possible on completed areas to also help control dust. Respective contractors will be responsible to minimize air quality impacts during the various phases of construction.

Exhaust emissions from construction vehicles are anticipated to have negligible impact on air quality in the project vicinity as the emissions would be relatively small and readily dissipated. In the long-term, some vehicular emissions related to operations at the project site are expected, however, due to the generally prevailing tradewinds, the emissions would be readily dissipated.

No short- or long-term significant impacts on surface and/or coastal waters in the project vicinity are anticipated during construction or operation of the proposed project. There are no streams or wetlands on or within close proximity to the project site. Construction of the proposed project will not involve major land disturbing

activities. Applicable erosion control measures and best management practices will be implemented in order to mitigate any possible adverse effects relating to runoff. As applicable for each phase, these may include but are not be limited to: temporary sediment basins, temporary diversion berms and swales to intercept runoff, silt fences, dust fences, slope protection, stabilized construction vehicle entrance, grate inlet protection, truck wash down areas, and use of compost filter socks. Planting of landscaping also will be done as soon as possible on completed areas to help control erosion. Permanent sediment control measures will be used once construction is completed.

Coordination will be undertaken with the appropriate agencies during permitting and construction in order to ensure that the proposed project will not result in significant impacts with regard to surface and coastal waters. A National Pollutant Discharge Elimination System (NPDES) permit for storm water runoff from construction activities would be required as individual and/or cumulative soil disturbances on the project site will exceed one acre of land area. Any discharges related to project construction or operation activities will comply with applicable State Water Quality Standards as specified in Hawai'i Administrative Rules, Chapter 11-54 and 11-55 Water Pollution Control, Department of Health. Excavation and grading activities will be regulated by applicable provisions of the County's grading ordinance.

In the short- and long-term, no significant impacts on air quality are anticipated as a result of the construction and operation of the proposed project. A portion of the construction for the proposed project will involve fine grading as well as limited excavation for utility lines and fencing. Fugitive dust will be controlled, as required, by methods such as dust fences, water spraying and sprinkling of loose or exposed soil or ground surface areas. As deemed appropriate, planting of landscaping will be done as soon as possible on completed areas to also help control dust. Respective contractors will be responsible to minimize air quality impacts during the various phases of construction.

Exhaust emissions from construction vehicles are anticipated to have negligible impact on air quality in the project vicinity as the emissions would be relatively small and readily dissipated. In the long-term, some vehicular emissions related to operations at the project site are expected, however, due to the generally prevailing tradewinds, the emissions would be readily dissipated.

Land disturbing activities include demolition, foundation work, utility repairs and upgrades,

- (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;*

No short- or long-term significant impacts are anticipated as the project site is not located within an environmentally sensitive area.



According to the FIRM, the project site is designated Zone X, an area determined to be outside of the 0.2% annual chance floodplain. There are no base flood elevations or depths shown within this zone.

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

The proposed project will not result in significant impacts to view planes identified in county or state plans or studies. Moreover, the proposed project is not expected to adversely affect scenic and visual resources in the project area. The proposed SOEST Laydown Area and Floating Dock will not degrade lateral coastal views or mauka-makai views from Sand Island Parkway, the Sand Island State Recreation Area, or other areas in the vicinity of the site. The vertical components of the Laydown Area will include fencing and security lighting standards, which will be consistent with the visual character of the surrounding industrial uses.

- (13) *Requires substantial energy consumption.*

The construction and operation of the proposed project will not require a significant level of energy consumption. The primary demand for energy will be for night-time security lighting.

(This page intentionally left blank)

## 7. CONSULTATION

### 7.1 Pre-Assessment Consultation

The following agencies and organizations were consulted during the preparation of the Draft EA. Of the 16 parties that formally replied during the pre-assessment period, some had no comments while others provide substantive comments as indicated by the ✓ and ✓✓, respectively. All written comments are reproduced in Appendix D.

#### Federal Agencies

- National Oceanic and Atmospheric Administration, Pacific Islands Regional Office
- ✓✓ U.S. Army Corps of Engineers
- U.S. Department of the Interior, Fish and Wildlife Service

#### State Legislative Branch

- Senator Donna Mercado Kim
- Senator Suzanne Chun Oakland
- Representative Karl Rhoads
- Representative John Mizuno

#### State Agencies

- ✓ Department of Accounting and General Services
- Department of Business, Economic Development and Tourism
- Department of Business, Economic Development and Tourism, Energy Office
- Department of Business, Economic Development and Tourism, Land Use Commission
- Department of Business, Economic Development and Tourism, Office of Planning
- Department of Defense
- Department of Defense, State Civil Defense
- Department of Health
- ✓✓ Department of Health, Clean Water Branch
- Department of Health, Environmental Management Division
- ✓✓ Department of Health, Environmental Planning Office
- ✓✓ Department of Land and Natural Resources
- ✓✓ Department of Land and Natural Resources, Historic Preservation Division
- Department of Transportation
- Office of Environmental Quality Control
- Office of Hawaiian Affairs
- ✓✓ Office of Planning
- University of Hawai'i at Mānoa Environmental Center

#### City Council

- Councilmember Carol Fukunaga
- Councilmember Joey Manahan

#### City and County of Honolulu Agencies

- Board of Water Supply
- ✓ Department of Community Services
- Department of Design and Construction

- Department of Environmental Services
- ✓ Department of Facility Maintenance
- ✓ Department of Parks and Recreation
- ✓✓ Department of Planning and Permitting
- ✓✓ Department of Transportation Services
- ✓✓ Honolulu Fire Department
- ✓ Honolulu Police Department

**Utility Companies**

- Verizon Hawai'i
- ✓ Hawai'i Gas
- ✓ Hawaiian Electric Company
- ✓ Hawaiian Telcom
- Oceanic Cable

**Other Interested Parties and Individuals**

- Polynesian Voyaging Society
- Kalihi-Palama Neighborhood Board No. 15

## 8. REFERENCES

- Federal Emergency Management Agency, *Flood Insurance Rate Map Panel No. 0353G*.  
gis.hawaiiinfip.org/
- City and County of Honolulu, *General Plan, Objectives and Policies Amended October 3, 2002*.
- City and County of Honolulu, Department of Planning and Permitting, *Primary Urban Center Development Plan*, June 2004.
- State of Hawai'i Department of Health, *Hawai'i Ambient Air Quality Data*, Clean Air Branch. Internet. Available at: <http://health.hawaii.gov/cab/Hawai'i-ambient-air-quality-data/>
- State of Hawai'i Department of Health, *Hawai'i Administrative Rules Title 11 Department of Health Chapter 54, Water Quality Standards*, amended and compiled May 27, 2009.
- State of Hawai'i Department of Health, *Hawai'i Administrative Rules Title 11 Department of Health Chapter 60.1, Air Pollution Control*, amended and compiled September 16, 2003.
- U.S. Census Bureau American Fact Finder, Profile of General Population and Housing Characteristics: 2010. <http://factfinder2.census.gov>
- U.S. Census Bureau, Honolulu County – Quick Facts from the U.S. Census Bureau: <http://quickfacts.census.gov/qfd/states>
- U.S. Fish and Wildlife Service, National Wetlands Inventory <http://www.fws.gov/wetlands/Data/Mapper.html>
- United States Department of Agriculture Natural Resource Conservation Service. *Soil Classification*. Internet. Available at: <http://soils.usda.gov/technical/classification/>
- University of Hawai'i at Hilo, Department of Geography, *Atlas of Hawai'i*, Third Edition, Edited by Sonia P. Juvik and James O. Juvik, University of Hawai'i Press, Honolulu, 1998.

(This page intentionally left blank)

---

# **APPENDIX A:**

Water Quality and Biological Surveys  
for the School of Ocean and Earth  
Science and Technology (SOEST),  
Sand Island, O'ahu, Hawai'i.  
AECOS, February 11, 2015.





## Water quality and biological surveys for School of Ocean and Earth Science and Technology (SOEST) Sand Island, O'ahu, Hawai'i<sup>1</sup>

February 11, 2015 AECOS No. 1417

Stacey Kilarski, Chad Linebaugh, and Rachel Knapstein  
 AECOS, Inc.  
 45-939 Kamehameha Hwy, Suite 104  
 Kane'ohe, Hawai'i 96744  
 Phone: (808) 234-7770 Fax: (808) 234-7775 Email: aecos@aecos.com

Table of Contents	
Introduction	2
Project Description	3
Marine Environment	4
Methods	5
Water Quality	5
Botanical Survey	7
Avian Survey	8
Terrestrial Mammal Survey	8
Marine Biota	9
Survey Results	10
Water Quality	10
Vegetation	11
Flora	11
Avian Survey	15
Terrestrial Mammals	15
Marine Resources	15
Assessment	22
Water Quality	22
Botanical Resources	24
Avian Resources	25
Terrestrial Mammals	25
Marine Resources	26
ESA-listed and state protected species	26
References	29

<sup>1</sup> Report prepared for Wilson Okamoto Corporation for use in the preparation of an Environmental Assessment/Environmental Impact Statement and various environmental permits.

## Introduction

Owing to the closure of the University of Hawai'i Marine Center at the Pier 45 Snug Harbor Facility, The University of Hawai'i (UH) School of Ocean and Earth Science and Technology (SOEST) will divide and relocate its small- and large-boat operations. The large boat operations of SOEST will be moved to a new facility at Pier 35, while its small boat operations will be moved to the proposed Sand Island Small-Boat Facility & Floating Dock adjacent to Honolulu Community College's (HCC), Marine Education Training Center (METC) at Sand Island (Figure 1). The latter move will require an Environmental Assessment (EA) to identify resources and evaluate impacts. To support the EA, Wilson Okamoto Corp. retained AECOS, Inc. to conduct marine and terrestrial surveys for the project ("Project"). Our surveys were conducted on three days in December 2014 and included surveys of water quality, terrestrial flora and fauna, and marine biota. This report details findings of those surveys.

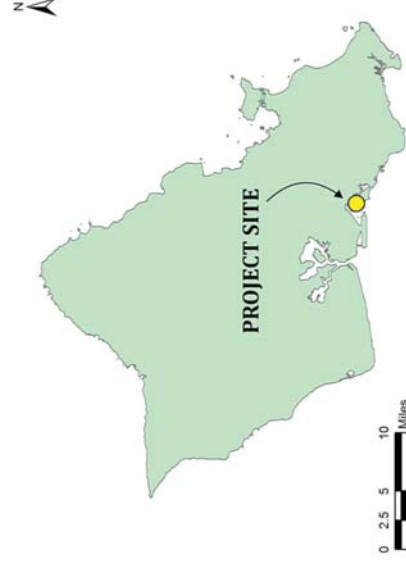


Figure 1. General location of Project area on the Island of O'ahu.

Project Description

Proposed Project improvements include constructing a paved, fenced and lighted laydown/storage area and installing a new larger floating dock to replace the existing floating dock fronting the METC (Figures 2 and 3). In the first phase, approximately 2.3 ac of TMK: 1-5-041:006 por. & 334 por., a presently vacant, 4.6-ac lot adjacent to the METC will be developed for the laydown/storage area. Following construction, SOEST proposes to relocate a number of storage containers from the Snug Harbor facility to the laydown area, and erect tents and/or prefabricated structures to house its collection of geologic samples. In addition, the laydown area will be used to store SOEST's small vessels and trailers and for parking by SOEST personnel and visitors. The proposed replacement floating dock will be used jointly by SOEST, the UH Sailing Team, the UH Student Recreation Service, and the HCC METC.



Figure 2. SOEST and METC proposed site plan.



Figure 3. SOEST and METC proposed site plan.

Marine Environment in Project Vicinity

Although small beaches of sand and gravel lie along the south shore of Sand Island, much of this shore is rocks, concrete blocks, and miscellaneous debris (AECOS, 1979). NOAA-NOS benthic habitat maps (Batista et al., 2007) identify marine environments in the Project vicinity as dredged, uncolonized sediment ("mud"). The historical AECOS Coastal Zone map (AECOS, 1979) indicates that the northwest end of Sand Island, fronting Kalihi Channel is "sbr" (generally a poorly sorted deposit of rubble, gravel, and sand usually associated with either a protected shore behind a fringing reef or a stream deposit). A fringing reef flat lies to seaward off Sand Island, varying in width between 60 to 180 m (200 to 600 ft). This reef is a remnant of the once more extensive reef platform which was covered by fill during expansion of Sand Island. A part of the reef flat was dredged during World War II nearly to the reef margin to create several

seaplane runways in Ke'ehi Lagoon. The shallow and irregular reef flat west of Sand Island consists of sand, gravel, rubble, and scattered boulders. The depth is about 1 foot below MLLW or less over sand bars. The reef margin is consolidated limestone partially exposed at low tide. The reef front slopes gradually to depths of around 30 to 40 ft (9 to 12 m). The margin is furrowed by surge channels and depressions; bottom relief is up to 5 to 7 ft (1.5 to 2 m). The reef front below 8 ft (2.4 m) consists of scattered sand pockets and larger sand patches (AECOS, 1979).

A 2010 survey of the area found the substratum under Bascule Bridge in Kalihi Channel consists mostly of silt and fine sand, with patches of shell hash, errant debris, and an abundance of small burrows. Invasive snowflake coral (*Caijia risedi*) is pervasive in this area. Polychaetes, including feather duster worm (*Sabellastarte spectabilis*), Christmas tree worm (*Spirobranchus giganteus*), sea frost (*Salmacina dysteri*), and parchment worm (*Chaetopterus* sp.) are also found growing on these substrata. Corals are occasional, and are generally less than 25 cm in diameter, though a few larger colonies of rice coral do occur here (AECOS, 2010).

**Water circulation** – Circulation of water in Kalihi Channel is complex due to its location between the basins of Ke'ehi Lagoon and Honolulu Harbor. The presence of two channels connecting Honolulu Harbor with the ocean and the input of large quantities of freshwater into the harbor influence currents governed by more than just tidal flows. Prevailing current measured near the bascule bridge (Sand Island Access Road crossing over Kalihi Channel) is nearly due west, out of the harbor in the upper 3 m (10 ft) of the channel. Approximately 45% of surface flow is out of the harbor while 22% of flow is into the harbor with a net flow of 2 cm/s due west. In deeper waters of the channel, at depths of 6 to 9 m (20 to 30 ft), 40% of the flow is out of the harbor (west) and 32% of the flow is into the harbor (east), with a net flow of 1 cm/s to the west-southwest. Another notable feature of the water currents in the Kalihi Channel is that the greatest amount of water flowing into the harbor occurs during the tidal ebb, when currents would be expected to flow out of the harbor. Exclusively tidally driven currents in Mamala Bay, offshore of the project site, typically flow around 24 cm/s, reversing with the tide, and result in net transport to the southwest (SEI, 2007).

## Methods

### Water Quality

Biologists collected water samples and measured field parameters at three stations in Kalihi Channel (Figure 4) on December 12, 2014. Samples were collected from 30 cm (1 ft) below water surface, at mid-depth, and 30 cm (1 ft) above the seafloor. Station "Bridge" was located at the north-east edge of the Project, adjacent to the seaward side of Bascule Bridge, approximately 38 m (125 ft) off the shoreline. Station "Channel" was located in Kalihi Channel, approximately 76 m (250 ft) south from Sta. Bridge and 38 m (125 ft) off shoreline. Station "Corner" was located approximately 152 m (500 ft) south from Sta. Bridge and 38 m (125 ft) off the shoreline.



Figure 4. Locations of water quality stations sampled on December 12, 2014.

Temperature, salinity (by refractometer), pH, and dissolved oxygen (DO) were measured *in situ*. Water samples were collected, chilled, and returned to the AECOS laboratory for other analyses (AECOS Log No. 30597). The following parameters were measured in the laboratory from these samples: salinity (by salinometer), turbidity, total suspended solids (TSS), ammonia nitrogen, nitrate+nitrite nitrogen, total nitrogen, total phosphorus, and chlorophyll *a*. Table 1 lists the instruments and analytical methods used for field and laboratory analyses.

Table 1. Analytical methods used in water quality sampling for SOEST Sand Island project.

Analysis	Method	Reference	Instrument <sup>†</sup>
Temperature	SM 2550 B	SM (1998)	YSI Model PRO 20 DO meter thermistor
Salinity(field)	SM 2510-B	SM (1998)	YSI Model PRO 20 DO meter - conductivity calc.
pH	SM 4500 H+	SM (1998)	pHep HANNA meter
Dissolved Oxygen	SM 4500-O G	SM (1998)	YSI Model PRO 2030 DO meter
Salinity (salinometer)	SM 2510-B	SM (1998)	AGE Model 2100 salinometer
Turbidity	EPA 180.1 Rev 2.0	EPA (1993)	HACH 2100N Turbidimeter
Total Suspended Solids	SM 2540 D	SM (1998)	Mettler Toledo H31 analytical balance
Ammonia	Kerouel and Aminot (1997)	Kerouel and Aminot (1997)	SealAA3 Autoanalyzer, colorimetric
Nitrate + Nitrite	Grasshoff (1983)	Grasshoff (1983)	Seal AA3 Autoanalyzer, colorimetric
Total Nitrogen	Grasshoff (1983)	Grasshoff (1983)	Seal AA3 Autoanalyzer, UV
Total Phosphorus	Grasshoff (1983)	Grasshoff (1983)	Seal AA3 Autoanalyzer, UV
Chlorophyll <i>a</i>	SM 10200-H	SM (1998)	Turner Fluorometer

<sup>†</sup> typical instruments listed, others may have been substituted.

## Botanical Survey

A survey of plants growing in the Project area was undertaken on December 10, 2014 by two AECOS biologists. The survey entailed traversing on foot all areas anticipated to be impacted by the project including: the Project shoreline along

the Kalihi Channel, the undeveloped parcel to be used as laydown/storage area south of the Marine Education and Training Center and the right-of-way on both sides of the access road leading to the site from Sand Island Parkway. A handheld GNSS unit (Garmin 62CSx) was used to record progress of the survey (survey path) as well as mark locations of any special features. Plants were identified in the field and those not immediately identifiable were photographed and/or a part "collected" for identification in the laboratory. Plant names follow *Manual of the Flowering Plants of Hawaii* (Wagner, Herbst, & Sohmer, 1990, 1999) for native and naturalized flowering plants, *A Tropical Garden Flora* (Staples & Herbst, 2005) for crop and ornamental plants, and *Hawaii's Ferns and Fern Allies* (Palmer, 2003) for ferns and fern allies. Some plant names have been updated as presented in various recent published papers and summarized by Imada (2012).

## Avian Survey

The avian survey included three stationary point-count stations in which all birds observed during a 5 minute period were recorded within a visible radius of the observer and by listening for vocalizations. Point-count stations (Figure 5) were located along the Kalihi Channel shoreline (Sta. 1), at the south end of the access road (Sta. 2), and in the center of the laydown/storage area (undeveloped parcel) south of METC (Sta. 3). Additionally, a running tally of bird species not observed during stationary point counts was kept.

Stationary point counts were conducted near mid-day on December 10 and early in the morning on December 12, 2014. Weather conditions during both survey periods were ideal, with no rain, unlimited visibility, and Tradewinds between 5 and 15 mph. Species identifications were verified with: *A Photographic Guide to the Birds of Hawaii: the Main Islands and Offshore Waters* (Denny, 2010). Taxonomy follows the Checklist of North and Middle American Birds by American Ornithologists' Union (AOU, 2014).

## Terrestrial Mammals Survey

A list of mammal species observed in the project area was noted as biologists conducted botanical and avian surveys. Visual observation for tracks, scat or other signs of mammalian use of the Project area was also undertaken concurrent with other surveys.





Figure 5. Locations of avian point-count stations.

### Marine Biota

On December 12, 2014, AECOS biologists used SCUBA to conduct a rapid assessment and qualitative survey of the marine biological community off the shoreline fronting the Kalihi Channel of Honolulu Harbor. Biologists identified fishes, algae, and macroinvertebrates, and noted bottom types. A list of species of marine plants and animals observed at the survey was developed. Marine biota were identified in the field and verified with various resource texts: for algae (Huisman et al., 2007), for macro-invertebrates (Hoover, 1999), and for fishes (Hoover, 2008). The survey began at 10:00 AM, approximately 120 minutes after a predicted +1.73 ft high tide (relative to MLLW; Honolulu Harbor, HI. Station ID 1612340; NOAA, 2014). Underwater visibility ranged from 0.3 to 1.5 m (1 to 5 ft).

## Survey Results

### Water Quality

Results of the water quality sampling event are summarized in Table 2 (physical parameters) and Table 3 (nutrients and chlorophyll *a*). All stations had similar water temperature, dissolved oxygen (DO), and salinity whereas pH increased slightly in the seaward (WSW) direction. Turbidity levels were highest above the bottom at each station, but TSS varied among depths at each station.

Table 2. Physical water quality parameters for marine waters in the SOEST Project area. Water samples collected December 12, 2014.

Station	Temperature (°C)	Dissolved Oxygen (mg/l)	DO Saturation (%)	pH (pH)	Salinity (ppt)	Turbidity (ntu)	TSS (mg/l)
Bridge	Surface	7.33	109	7.99	35.0	1.05	4.5
	Mid	7.55	112	8.09	35.0	1.33	5.9
	Bottom	7.56	113	8.06	34.9	1.86	3.7
Channel	Surface	7.53	112	8.13	35.0	1.40	4.5
	Mid	7.57	113	8.25	35.1	1.46	3.2
	Bottom	7.33	110	8.24	35.0	1.60	3.6
Corner	Surface	7.40	110	8.25	35.0	1.36	3.2
	Mid	7.58	114	8.25	35.1	1.35	3.1
	Bottom	7.53	112	8.26	35.0	2.39	7.6

Ammonia concentrations varied between shallow and mid-depths at all stations and were highest at Sta. Corner below the near-surface sample. Nitrate-nitrite and chlorophyll *a* concentrations were consistent among all stations and depths. Total nitrogen concentrations were generally consistent among the Sta. Bridge and Sta. Channel samples, but were elevated slightly at the mid- and near-bottom depths of Sta. Corner. Total P showed a trend of slightly higher values in the seaward direction.

Table 3. Water quality characteristics for marine waters in the SOEST Project area. Water samples collected December 12, 2014.

Station	Ammonia (µgN/l)	Nitrate - nitrite (µgN/l)	Total N (µgN/l)	Total P (µgP/l)	Chlorophyll a (µg/l)
Bridge					
Surface	<1	6	103	17	0.38
Mid	15	5	105	15	0.43
Bottom	13	5	105	17	0.32
Channel					
Surface	6	5	104	18	0.35
Mid	17	3	103	17	0.50
Bottom	10	4	103	20	0.48
Corner					
Surface	6	4	97	20	0.39
Mid	22	4	113	21	0.46
Bottom	32	4	124	21	0.40

Vegetation

Essentially all of the land that is Sand Island in the Project vicinity comprises fill material deposited from dredging of Honolulu Harbor and from other sources (Foote et al., 1972). The shore of the Project is mostly piers and seawall with little suitable area for vegetation growth.

Flora

The climate in the area is dry coastal and the flora is mostly herbaceous plants typical of disturbed areas, with elements of dry coastal scrub and coastal strand assemblages. A total of 53 plant species were recorded during the survey (Table 4). Pigweed (*Portulaca oleracea*), wiregrass (*Fusine indica*), and tree tobacco (*Nicotiana glauca*) grow near the floating piers used by the sailing club. Pickleweed (*Batis maritima*) and mangrove (*Rhizophora mangle*) grow above the rip-rap, an area shaded by *milo* (*Thespesia populnea*). Guinea grass (*Urochloa maxima*) and sorghum (*Sorghum halepense*) grow further upslope from the shoreline.

Table 4. Checklist of plants and relative abundances in Project area.

FAMILY	Genus species	Common name	Status	Abundance
NEPHROLEPIDACEAE	<i>Nephrolepis brownii</i> (Desv.) Hovenkamp & Miyam.	sword fern	Nat	R
PTERIDOPHYTES				
FLOWERING PLANTS				
DICOTYLEDONES				
ACANTHACEAE	<i>Asystasia gangetica</i> (L.) T.Anderson	Chinese violet	Nat	R
AIZOACEAE	<i>Sesuvium portulacastrum</i> (L.) L.	'akulikali	Ind	C
AMARANTHACEAE	<i>Alternanthera pungens</i> Kunth	khaki weed	Nat	R
	<i>Amaranthus viridis</i> L.	slender amaranth	Nat	R
APOCYNACEAE	<i>Nerium oleander</i> L.	oleander	Orn	R
ASTERACEAE (COMPOSITAE)				
	<i>Bidens alba</i> (L.) DC.	beggartick	Nat	U
	<i>Calypocarpus vialis</i> Less	---	Nat	U
	<i>Emilia fosbergii</i> Nicolson	Flora's paintbrush	Nat	R
	<i>Pluchea carolinensis</i> (Jacq.) G. Don	sourbush	Nat	O
	<i>Pluchea indica</i> (L.) Less.	Indian fleabane	Nat	O
	<i>Pluchea x fosbergii</i> Cooperr. & Galang	sourbush hybrid	Nat	R
	<i>Taraxacum officinale</i> W.W.Weber ex F.H.Wigg.	common dandelion	Nat	R
BATACEAE	<i>Tridax procumbens</i> L.	coatbuttons	Nat	C
BORAGINACEAE	<i>Batis maritima</i> L.	pickleweed	Nat	R
	<i>Heliotropium curassavicum</i> L.	seaside heliotrope	Ind	O
CAPPARACEAE	<i>Gleome gynandra</i> L.	wild spider flower	Nat	R
CLUSIACEAE	<i>Calophyllum inophyllum</i> L.	<i>kamani</i>	Pol	R
CONVOLVULACEAE	<i>Ipomoea cairica</i> (L.) Sweet	ivy leaf morning glory	Nat?	R
	<i>Ipomoea obscura</i> (L.) Ker Gawl.	---	Nat	O

Table 4 (continued).

FAMILY	Genus species	Common name	Status	Abundance
EUPHORBIACEAE	<i>Euphorbia albomarginata</i> Torr. & A.Gray	rattlesnake weed	Nat	R
	<i>Euphorbia hypericifolia</i> L.	graceful spurge	Nat	O
	<i>Euphorbia hirta</i> L.	garden spurge	Nat	U
FABACEAE	<i>Desmanthus pernambucanus</i> (L.) Thellung	virgate mimosa	Nat	C
	<i>Indigofera spicata</i> Forssk.	creeping indigo	Nat	C
	<i>Leucaena leucocephala</i> (Lam.) deWit	<i>koa haole</i>	Nat	O
	<i>Macropitium atropurpureum</i> (DC.) Urb	---	Nat	U
	<i>Prosopis pallida</i> (Humb. & Bonpl. Ex Willd) Kunth	<i>kiawe</i>	Nat	C
GOODENIACEAE	<i>Scaevola taccada</i> (J. Gaertn.) Roxb.	<i>naupaka kahakai</i>	Ind	U
MALVACEAE	<i>Malvastrum coromandelianum</i> (L.) Garcke	---	Nat	U
	<i>Sida ciliaris</i> L.	---	Nat	C
	<i>Sida rhombifolia</i> L.	Cuban jute	Nat?	U
	<i>Thespesia populnea</i> (L.) Sol ex Correa	<i>milo</i>	Ind	R
	<i>Waltheria indica</i> L.	<i>'uhaloa</i>	Ind?	C
NYCTAGINACEAE	<i>Boerhavia coccinea</i> Mill.	false <i>alena</i>	Nat	C
PORTULACACEAE	<i>Portulaca oleracea</i> L.	pigweed	Nat	C
PASSIFLORACEAE	<i>Passiflora foetida</i> L.	love in a mist	Nat	R
RHIZOPHORACEAE	<i>Rhizophora mangle</i> L.	American mangrove	Nat	R
RUBIACEAE	<i>Spermacoce assurgens</i> Ruiz & Pav	buttonweed	Nat	R
SOLANACEAE	<i>Nicotiana glauca</i> Graham	tree tobacco	Nat	R
		FLOWERING PLANTS		
		MONOCOTYLEDONES		
ARECACEAE	<i>Cocos nucifera</i> L.	coconut palm; <i>niu</i>	Pol	R
CYPERACEAE	<i>Cyperus rotundus</i> L.	nutgrass	Nat	U
POACEAE (GRAMINEAE)	<i>Bothriochloa pertusa</i> (L.) A.Camus	pitted beardgrass	Nat	O

Table 4 (continued).

FAMILY	Genus species	Common name	Status	Abundance
POACEAE (continued)	<i>Cenchrus ciliaris</i> L.	buffelgrass	Nat	AA
	<i>Cenchrus echinatus</i> L.	sandbur	Nat	O
	<i>Chloris barbata</i> (L.) Sw.	swollen fingergrass	Nat	C
	<i>Cynodon dactylon</i> (L.) Pers.	Bermuda grass	Nat	C
	<i>Eleusine indica</i> (L.) Gaertn.	wire grass	Nat	R
	<i>Eragrostis amabilis</i> (L.) Wight & Arn.	lovegrass	Nat	O
	<i>Eragrostis pectinacea</i> (Michx.) Nees	Carolina lovegrass	Nat	O
	<i>Melinis repens</i> (Willd.) Zizka	Natal reedtop	Nat	R
	<i>Sorghum halepense</i> (L.) Pers.	sorghum	Nat	R
	<i>Urochloa maxima</i> (Jacq.) R.D.Webster	Guinea grass	Nat	O

Table 4 legend:

Status = distributional status

Ind = endemic; native to Hawaii and found naturally nowhere else

Ind = indigenous; native to Hawaii, but not unique to the Hawaiian Islands

Nat = naturalized; exotic, plant introduced to the Hawaiian Islands since the arrival of Cook Expedition in 1778, and well-established outside of cultivation

Pol = Early Polynesian introduction before 1778

Abundance = occurrence ratings for plants

R - Rare - only one or two plants seen

U - Uncommon - several to five plants observed

O - Occasional - found between five and ten times

C - Common - considered an important part of the vegetation and observed numerous times

A - Abundant - found in large numbers; may be locally dominant

AA - Abundant and dominant, defining species.

The bulk of the approximately 4.6-ac undeveloped parcel to be used in part as a laydown/storage area is covered with buffelgrass (*Cenchrus ciliaris*) and *kiawe* (*Prosopis pallida*). Virgate mimosa (*Desmanthus pernambucanus*), Indian fleabane (*Pluchea indica*), *'uhaloa* (*Waltheria indica*), *'akaukuli* (*Sesuvium portulacastrum*), and sourbush (*Pluchea carolinensis*) grow interspersed among the *kiawe* and occasional *koa haole* (*Leucaena leucocephala*) shrubs.

Low growing, herbaceous growths of *Sida ciliaris*, false *alena* (*Boerhavia coccinea*), and coatbuttons (*Tridax procumbens*) line the verge of the access road. Patches of Bermuda grass (*Cynodon dactylon*), buffelgrass, and swollen finger grass (*Chloris barbata*) also grow along the road. Vines (*Ipomoea obscura* and *Macropitium atropurpureum*) grow in places over concrete barriers along the access road.



Five species observed in the survey area are indigenous to the Hawaiian Islands: 'uhaloa, seaside heliotrope (*Heliotropium curassavicum*), 'akulikuli (*Sesuvium portulacastrum*), mila (*Thespesia populnea*) and naupaka kahakai (*Scaevola taccada*). Early Polynesian introductions recorded are niu (*Cocos nucifera*) and kamani (*Calophyllum inophyllum*). No endemic plant species were observed.

Avian Survey

During stationary point counts, a total of 59 individual birds from 7 families were recorded (Table 5). All of these bird species are naturalized residents, with Spotted Dove (*Streptopelia chinensis*) and House Sparrow (*Passer domesticus*) together constituting more than half (56%) of total birds recorded. These two were the only species observed at every point-count station. Common Myna (*Acridotheres tristis*), Red-vented Bulbul (*Pycnonotus cafer*), and Red-crested Cardinal (*Paroaria coronata*) were regularly sighted throughout the Project area. Four Chestnut Munia (*Lonchura atricapilla*) were observed while traversing the property, representing the only bird species observed on site that was not detected during stationary point counts.

Terrestrial Mammals

The entire survey area is overrun with feral House cat (*Felis catus*). Numerous banquet tables covered with cat food and water are present in the undeveloped parcel. The Small Indian mongoose (*Herpestes auropunctatus*) also inhabits the Project area. Though no rats or mice were observed during the survey, it is possible that one or all of the four naturalized rodents (Family Muridae) in the Hawaiian Islands utilizes the Project area, or not given the cat population.

Marine Resources

The survey area is a remnant reef in water ranging in depth from 0 to 10.9 m (0 to 26 ft) with a substratum of mostly sand adjacent to a dredged ship channel. A veneer of silt covers most bottom substrata, and cyanobacteria are abundant on the bottom. Boulders and sections of remnant reef are scattered about a cluster of boulders and debris is present on the bottom close to the Bascule Bridge. Sand bottom slopes down to mid channel, reaching a depth of 36 ft (14 m). Table 6 is a listing of marine biota identified by AECOS biologists on December 12, 2014 in Kalihi Channel off the Project.

In this area, minimal biota was observed. Corals are uncommon here, and the few colonies encountered are growing on the large hard bottom areas or loose

Table 5. Checklist and counts for birds observed at Sand Island Project site, December 2014.

PHYLUM, CLASS, ORDER, FAMILY	Genus species	Common name	Status	Station Point-Counts (SPC)						SPC Abundance (total/3)
				Sta. 1		Sta. 2		Sta. 3		
				Early AM	Late AM	Early AM	Late AM	Early AM	Late AM	
BIRDS										
CHORDATA AVES										
COLUMBIFORMES										
COLUMBIDAE										
	<i>Colaptes auratus</i>	Rock Dove	Nat	--	2	--	--	--	--	0.33
	<i>Columba striata</i> L.	Zebra Dove	Nat	--	--	--	--	1	--	0.17
	<i>Streptopelia chinensis</i>	Spotted Dove	Nat	1	3	7	4	1	--	2.67
AVES, PASSERIFORMES										
ESTRILIDAE										
	<i>Lonchura atricapilla</i>	Chestnut Munia	Nat	--	--	--	--	--	--	Incidental sighting
	<i>Lonchura cantans</i>	African Silverbill	Nat	3	--	--	--	--	--	0.50
PASSERIDAE										
	<i>Passer domesticus</i> L.	House Sparrow	Nat	10	3	3	--	2	--	3.00
PYCNONOTIDAE										
	<i>Pycnonotus cafer</i> L.	Red-vented Bulbul	Nat	--	--	2	--	--	--	0.33
STURNIDAE										
	<i>Acridotheres tristis</i> L.	Common Myna	Nat	--	--	2	--	4	--	1.00
THRAUPIDAE										
	<i>Paroaria coronata</i> J.F. Miller	Red-crested Cardinal	Nat	--	--	3	--	--	--	0.50
AVES, PELECANIFORMES										
ARDEIDAE										
	<i>Bubulcus ibis</i> L.	Cattle Egret	Nat	1	2	3	2	--	--	1.33

Table 6. Inventory of marine biota observed in the vicinity of the Project on December 12, 2014.

PHYLUM, CLASS, ORDER FAMILY	Species	Common name, <i>Hawaiian name</i>	Status	Abundance
<b>CYANOPHYTA</b>	<i>Lyngbya majuscula</i>	<b>BLUE-GREEN ALGAE</b>	---	C
<b>MAGNOLIOPHYTA</b>	<i>Halophila decipiens</i>	<b>SEAGRASS</b>	Nat	0
<b>PORIFERA, DEMOSPONGIAE,</b>		<b>INVERTEBRATES</b>		
<b>MYXILLIDAE</b>	<i>Iotrochota protea</i>	Sponges	Ind	0
<b>CHALINIDAE</b>	<i>Sigmaoacia</i> sp.	staining sponge	Ind	0
<b>MYCALIDAE</b>	<i>Mycale</i> sp.	Boring sponge	Nat	0
		---	Nat	0
<b>CNIDARIA, HYDROZOA,</b>				
<b>ANTHOATHECATA</b>				
<b>PENNARIIDAE</b>	<i>Pennaria disticha</i>	Christmas tree hydroid	Ind	R
<b>CNIDARIA, ANTHOZOA,</b>				
<b>OCTOCORALLIA, TELESTACEA</b>				
<b>TELESTIDAE</b>	<i>Carijoa riisei</i>	snowflake coral	Nat	R
<b>CNIDARIA, ANTHOZOA,</b>		<b>HARD CORALS</b>		
<b>SCLERACTINIA</b>	<i>Pocillopora damicornis</i>	lace coral	Ind	C
<b>POCILLOPORIDAE</b>	<i>Montipora capitata</i>	rice coral	Ind	0
<b>ACROPORIDAE</b>	<i>Porites lobata</i>	lobe coral, <i>po'haku puna</i>	Ind	C
<b>PORITIDAE</b>				
<b>FAVIIDAE</b>	<i>Leptastrea bewickensis</i>	bewick coral	Ind	0
	<i>Leptastrea purpurea</i>	crust coral	Ind	0
	<i>Cyphastrea ocellina</i>	ocellated coral	Ind	R

Table 6 (continued).

PHYLUM, CLASS, ORDER FAMILY	Species	Common name, <i>Hawaiian name</i>	Status	Abundance
<b>ANNELIDA, POLYCHAETA</b>				
<b>SABELLIDAE</b>	<i>Sabellastarte spectabilis</i>	feather duster worm	Ind	C
<b>SERPULIDAE</b>				
<b>TEREBELLIDAE</b>	<i>Loimia medusa</i>	medusa spaghetti worm	Ind	0
<b>SERPULIDAE</b>	<i>Salmacina dysteri</i>	sea frost	Ind	R
<b>ECTOPROCTA,</b>		<b>BRYOZOANS</b>		
<b>GYMNOLAEMATA,</b>				
<b>CHELOSTOMATA</b>				
<b>RETEPORIDAE</b>	<i>Reteporellina denticulata</i>	lace bryozoan	Ind	R
<b>SCHIZOPORELLIDAE</b>	<i>Schizoporella errata</i>	erratic bryozoan	Ind	R
<b>VESICULARIDAE</b>	<i>Amathia distans</i>	bushy bryozoan	Nat	R
<b>BUGULIDAE</b>	<i>Bugula dentate</i>	blue fan bryozoan	Nat	R
<b>MOLLUSCA, OPISTHOBRANCHIA,</b>				
<b>SACOGLOSSA</b>				
<b>ELYSIIDAE</b>	<i>Plakobranchus ocellatus</i>	ringed sap-sucking slug	Ind	C
<b>DORIDACEA,</b>				
<b>CHROMODORIDIDAE</b>	<i>Chromodoris vibrata</i>	trembling nudibranch	End	C
<b>MOLLUSCA, BIVALVIA</b>	<i>Pinctada margaritifera</i>	black-lipped pearl oyster	Ind	R
<b>OSTREIDAE</b>	<i>Dendostrea sandvicensis</i>	True oysters	Ind	0
		Hawaiian oyster		
<b>ARTHROPODA, CRUSTACEA,</b>				
<b>MALACOSTRACA, DECOPODA</b>				
<b>GRAPSIDAE</b>	<i>Grapsus tenuicrustatus</i>	thin shelled rock crab, <i>'ā'ama</i>	Ind	0
<b>ECHINODERMATA, ECHINOIDEA,</b>				
<b>TEMNOPLEUROIDEA</b>				
<b>TOXOPNEUSTIDAE</b>	<i>Tripaneustes gratilla</i>	collector urchin <i>hāwā'e maoli</i>	Ind	C

Table 6 (continued).

PHYLUM, CLASS, ORDER FAMILY	Species	Common name, Hawaiian name	Status	Abundance
<b>VERTEBRATA, ACTINOPTERYGII, PERCIFORMES</b>		<b>VERTEBRATES</b>		
<b>POMACENTRIDAE</b>	<i>Abudefduf abdominalis</i>	Hawaiian sergeant, <i>mamo</i>	Ind	R
	<i>Abudefduf vaigiensis</i>	Indo-Pacific sergeant, <i>mamo</i>	Ind	R
	<i>Dascyllus albisella</i>	Hawaiian dascyllus, <i>ālo'ilo'i</i>	Ind	R
<b>ACANTHURIDAE</b>	<i>Acanthurus triostegus</i>	SURGEONFISH convict tang; <i>manini</i>	Ind	R
	<i>Acanthurus nigrofasciatus</i>	brown surgeonfish; <i>mā'i'i'i</i>	Ind	R
	<i>Zebrasoma flavescens</i>	yellow tang <i>lau 'i-pala</i>	Ind	R
<b>MULLIDAE</b>	<i>Mullidichthys flavolineatus</i>	GOATFISH square spot goatfish, <i>weke'a</i>	Ind	O
	<i>Upeneus arge</i>	bandtail goatfish, <i>weke pueo</i>	Ind	R
<b>TETRAODONTIDAE</b>	<i>Arothron hispidus</i>	PUFFERFISH stripebelly puffer, 'o'opu <i>hue</i>	Ind	R
<b>OSTRACIDAE</b>	<i>Ostracion meleagris</i>	BOXFISH spotted boxfish, <i>moa</i>	Ind	R
<b>CARANGIDAE</b>	<i>Carangoides ferdau</i>	barred jack, <i>ulua</i>	Ind	R
<b>LUTJANIDAE</b>	<i>Lutjanus fulvus</i>	SNAPPER blacktail snapper	Ind	O
<b>SCORPAENIDAE</b>	<i>Dendrochirus barberi</i>	Hawaiian green lionfish	End	R
<b>CHAETODONTIDAE</b>	<i>Chaetodon auriga</i>	BUTTERFLYFISH threadfin butterflyfish; <i>kikākapu</i>	Ind	R
	<i>Forcipiger flavissimus</i>	common longnose butterflyfish; <i>lauwithii</i> <i>nukanuka'oi'oi</i>	Ind	R
<b>ZANCLIDAE</b>	<i>Zanclus cornutus</i>	Moonish idol	Ind	O

Table 6 (continued).

PHYLUM, CLASS, ORDER FAMILY	Species	Common name, Hawaiian name	Status	Abundance
<b>SYNDONTIDAE</b>	<i>unid synodon</i>	LIZARDFISH unid. lizardfish	Ind	O
<b>CHORDATA, ASCIDACEA ENTEROGONA ASCIDIIDAE</b>	<i>Phallusia nigra</i>	TUNICATES black sea squirt	Nat	O

Legend to Table 6:  
Abundance categories:  
D = Dominant - observed in large numbers and widely distributed.  
A = Abundant - observed everywhere, although generally not in large numbers.  
C = Common - seen irregularly in small numbers.  
O = Occasional - several to a dozen individuals observed.  
R = Rare - only one or two individuals observed.  
Status categories:  
End - Endemic - species found only in Hawaii  
Ind - Indigenous - species found in Hawaii and elsewhere  
Nat - Naturalized - species were introduced to Hawaii intentionally, or accidentally.

rubble and debris such as tires, concrete blocks, and a bicycle. Six coral species were observed: *Porites lobata*, *Pocillopora damicornis*, *Montipora capitata*, *Cyphastrea ocellina* and *Leptastrea bewickensis* and *L. purpurea*. Coral colonies observed are mostly small (<5 and 11 to 20 cm size classes). Non-coral invertebrates seen here include bryozoans (*Reteporellina denticulata*, *Schizoporella errata*, *Amathia distans*, *Bugula dentata*), portunid crabs, feather duster worm (*Sabellastarte spectabilis*), sacoglossan sea slug (*Plakobranchus ocellatus*), nudibranch (*Chromodoris vibratra*), black sea squirt (*Phallusia nigra*), and oyster (*Dendrostroma sandvicensis*). A single black-tipped pearl oyster (*Pinctada margaritifera*) was observed.

Fishes are not common here; the few seen in the December 2014 survey include: moonish idol (*Zanclus cornutus*), butterflyfish (*Chaetodon auriga*, *Forcipiger flavissimus*), stripebelly puffer (*Arothron hispidus*), spotted boxfish (*Ostracion meleagris*), blacktail snapper (*Lutjanus fulvus*), goatfishes (*Upeneus arge*, *Mullidichthys flavolineatus*), damselfishes (*Abudefduf abdominalis* and *A. vaigiensis*, *Dascyllus albisella*), surgeonfishes (*Acanthurus triostegus*, *A. nigrofasciatus*, and *Zebrasoma flavescens*) and Hawaiian green lionfish (*Dendrochirus barberi*). Figure 6 displays representative photos of the bottom

in the survey area. A large bed of seagrass (*Halophila decipens*) was observed near the shore, close to the existing floating dock



Figure 6. Marine bottom: representative photographs in the Project vicinity. Corals are rare, sparsely distributed, and small (top left and right). Errant debris litters the seafloor, particularly off the northeast edge of the Project (bottom left). One black-lipped pearl oyster was observed growing among debris (bottom right).

### Assessment

#### Water Quality

State of Hawai'i, Water Quality Standards classify the waters of Honolulu Harbor as Class A embayment (HDOH 2014a). It is the objective of Class A waters that "...their use for recreational purposes and aesthetic enjoyment be protected. Any other use shall be permitted as long as it is compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation in and on these waters. These waters shall not act as receiving waters for any discharge which has not received the best degree of treatment or control compatible with the criteria established for this class. No new sewage discharges will be permitted within embayments. No new industrial discharges shall be permitted within embayments, with exceptions for Honolulu Harbor."

The waters of Honolulu Harbor and Shore Area- Kewalo Basin, near shore waters from Sand Island Channel to Waikiki Beach, and Ke'ehi Lagoon appear on the Hawai'i Department of Health (HDOH) 2014 list of impaired waters prepared under Clean Water Act §303(d) (HDOH, 2014). The listings indicate that waters in these areas do not meet certain applicable water quality standards. Honolulu Harbor and Shore Area- Kewalo Basin is listed as impaired for turbidity, yet data regarding ammonia and chlorophyll  $\alpha$  remain insufficient. Near shore waters from Sand Island Channel to Waikiki Beach are listed as impaired for turbidity. Data regarding ammonia and chlorophyll  $\alpha$  remain insufficient. Waters of Ke'ehi Lagoon are listed as impaired however data remain insufficient for nitrate-nitrite, total nitrogen (TN), total phosphorus (TP), total suspended solids (TSS), and turbidity.

Applicable state water quality criteria for Honolulu Harbor are given in Table 7. State water quality criteria for embayments incorporate "wet" and "dry" criteria values based on average percent of freshwater inflow: instances where average fresh water inflow from the land equals or exceeds one per cent of the embayment volume per day, wet criteria apply; where average fresh water inflow from the land is less than one per cent of the embayment volume per day, dry criteria apply.

The purpose of our water quality measurements was to characterize the existing aquatic environment, not to set baseline values or determine compliance with Hawai'i's water quality standards. In fact, the state criteria for all nutrient measurements, turbidity, and chlorophyll  $\alpha$  are based upon calculating geometric mean values and a minimum of three separate samples

per sampling location would be needed to compute a geometric mean (HDOH, 2004a).

Table 7. Selected State of Hawai'i water quality criteria for embayments (HAR §11-54-6 [b]; HDOH, 2014a).

Parameter	Geometric Mean value not to exceed this value	Value not to be exceeded more than 10% of the time	Value not to be exceeded more than 2% of the time
Total Nitrogen (µg N/l)	200.0 150.0	350.0 250.0	500.0 350.0
Ammonia Nitrogen (µg N/l)	6.00 3.50	13.00 8.50	20.00 15.00
Nitrate+Nitrite (µg N/l)	8.00 5.00	20.00 14.00	35.00 25.0
Total Phosphorus (µg P/l)	25.00 20.0	50.00 40.0	75.00 60.00
Chlorophyll α (ug/l)	1.50 0.50	4.50 1.50	8.50 3.00
Turbidity (NTU)	1.5 0.40	3.00 1.00	5.00 1.50

Two values: upper, "wet criteria" apply when the average fresh water inflow from the land equals or exceeds 1% of the embayment volume per day; lower "dry criteria" (*italicized*) apply when the average fresh water inflow from the land is less than 1% of the embayment volume per day.  
Other\* standards\*:

- pH units shall not deviate more than 0.5 units from a value of 8.1, except at coastal locations where and when freshwater from stream, stormdrain, or groundwater discharge may depress the pH to a minimum level of 7.0.
- Dissolved oxygen shall not decrease below 75% of saturation.
- Temperature shall not vary more than 1°C from ambient conditions.
- Salinity shall not vary more than 10‰ from natural or seasonal changes considering hydrologic input and oceanographic factors

Water quality conditions in the project area on December 12, 2014 met state water quality criteria for the parameters of pH, and DO saturation. Conditions likely comply with temperature and salinity criteria (measured values are essentially ambient). Turbidity was elevated compared with the state geometric criterion, but within a range common for Hawaiian embayments. There are no

state embayment criteria for TSS, but this parameter is often measured for projects that could possibly impact sediment distribution.

Nutrients (with the exception of ammonia) and chlorophyll concentrations were characteristic of Hawai'i embayments. Ammonia concentrations were elevated in the mid-water and near-bottom samples at all stations. The reason for this is not apparent, but may have been due to decaying organic matter on the bottom; ammonia being a breakdown product of organic nitrogen.

Potential exists for short term impacts from construction activities on water quality of the nearshore environment. A possible impact from construction is introduction of sediment into the water from construction activity. Recommended standard best management practices (BMPs) to protect water quality during construction should be used to minimize impacts to fish and wildlife resources. Such BMPs include, but are not limited to, using silt containment devices, avoiding creating runoff during coral spawning periods, and protecting soils from erosion.

Botanical Resources

Our plant survey revealed 53 species of ferns and flowering plants present in the Project area. The bulk of species observed (86%) are non-native species naturalized on the Island of O'ahu. Ornamental plants comprise 2% of species, with another 4% considered early Polynesian introductions (so-called "canoe plants"). Native plants present (10%) are species indigenous to the Hawaiian Islands; no endemics are present. Thus, no botanical resources of interest or potential concern from a conservation perspective—for examples, rare endemics and special trees (protected by County ordinance)—are present in the Project area. No plants listed as threatened or endangered by state (HDLNR, 1998) or federal (USFWS, 2014) statutes are present at the Project site.

The only botanical observed having any potential for consideration is tree tobacco (*Nicotiana glauca*): three tree tobacco plants are growing within the survey area. All three plants are growing close to the shoreline: two near the floating piers at METC and one near the northwest corner of the survey area (locations indicated in Figure 7). This non-native species is not protected by any statutes and regarded as invasive. However, in recent years, the endangered Hawaiian Sphinx moth (*Manduca blackburni*; a rare horn worm) has been found to utilize tree tobacco as a larval food source. This cross-over from a native food source has not been observed on O'ahu where the moth is considered extirpated (no longer present). However, in locations where tree tobacco is coincident with the known range of the moth (as on Maui and Hawai'i islands), special consideration must be given to removal of tree tobacco plants.



During the survey, the plants at the Project vicinity were inspected for signs of feeding by sphinx moth caterpillars, but no browsing was evident.

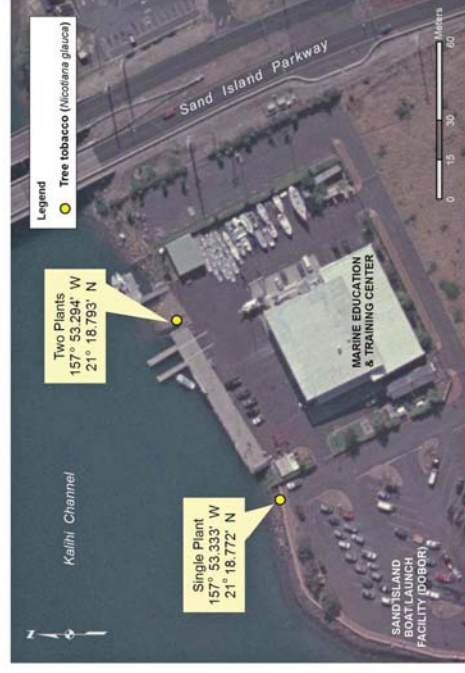


Figure 7. Map and coordinates for Tree Tobacco plants in Project vicinity.

### Avian Resources

Naturalized, urban-dwelling birds constitute the bulk of species encountered in the Project area. No native species were encountered. No species protected by State of Hawai'i Administrative Rules (DLNR, 1998, 2007) nor listed as endangered or threatened species under the federal ESA (USFWS, 2008, 2014) are present. The Project is not expected to adversely impact avian resources extant in the Project site or vicinity.

### Terrestrial Mammals

No terrestrial mammals of any concern occur in the Project area.

### Marine Resources

The nearshore environment of the proposed floating dock location supports a marine assemblage poor in species and numbers. This finding is consistent with previous surveys of this area of Honolulu Harbor (AECOS, 2007, 2009, 2010, 2014). The placement of a floating dock in the seafloor fronting Sand Island may have some impacts to the extant marine biological community, but no listed or rare biological resources currently exist at the proposed location. Special consideration may be necessary for the bed of seagrass observed in the Project vicinity.

### ESA-listed and state protected species

No listed (endangered or threatened; USFWS, 2013) species were encountered in the December 2014 surveys. Listed marine species (sea turtles, Hawaiian monk seal, and humpback whale) can occur in the general vicinity. State protected species (hermatypic corals) and black-lipped pearl oyster (*P. margaritifera*) occur in the Project area (DLNR, 1998, 2002, 2007, 2009; NOAA-NMFS, 2012 and 2013; USFWS, 2015).

The Project includes work in marine waters where ESA-listed species may be directly exposed to project-related activity. Sea turtles and marine mammals typically avoid human activity, so exposure to such activity and equipment operation would be infrequent and non-injurious, resulting in insignificant effects on the ESA-listed marine species. Additionally, protected species BMPs require that the project manager and contractor reduce the likelihood of interactions by watching for and avoiding protected species before commencing work and by postponing or halting operations when protected species are within 50 yards of project activities (USACE, 2012). Turbid water does not deter green sea turtles from foraging and resting areas; turtles were encountered during our January 2014 survey nearby under elevated turbidity conditions (AECOS, 2014).

**Sea turtle**—Of the sea turtles found in the Hawaiian Islands, only the green sea turtle is likely in the Project vicinity. The hawksbill sea turtle (*Eretmochelys imbricata*) is rare in the Hawaiian Islands and only known to nest in the southern reaches of the state (NOAA-PIFSC, 2010). In 1978, the green sea turtle was listed as a threatened species under the Endangered Species Act (ESA; USFWS, 1978, 2001). Since protection, the green sea turtle has become the most common sea turtle in the Hawaiian Islands with a steadily growing population (Chaloupka et al., 2008). Threats to the green sea turtle in Hawai'i include: disease and parasites, accidental fishing take, boat collisions,

entanglement in marine debris, loss of foraging habitat to development, and ingestion of marine debris (NMFS-USFWS, 1998).

Green sea turtle nesting mostly occurs on beaches of the Northwestern Hawaiian Islands, with 90% occurring at French Frigate Shoals (Balazs et al., 1992). None of the Hawaiian sea turtles is known to nest in the Project vicinity.

The green sea turtle diet consists primarily of benthic macroalgae (Arthur and Balazs, 2008), which the shallow reefs of the main Hawaiian Islands provide in abundance. Red macroalgae generally make up 78% of their diet, whereas green macroalgae make up 12% (Arthur and Balazs, 2008). Turbidity (murky water) does not appear to deter green sea turtles from foraging and resting areas and construction projects in Hawai'i have found sea turtles adaptable and tolerant of construction-related disturbances (Brock, 1998a,b). During our survey, no green sea turtles were observed, although a food resource (seagrass, see below) occurs there.

**Shellfishes**—Shellfishes, including pearl oyster (*Pinctada margaritifera*), are regulated throughout the State of Hawai'i, where it is prohibited to "catch, take, kill, possess, remove, sell or offer for sale", without a permit, pearl oysters and 6 other shellfishes (DLNR, 2009). One of the regulated shellfishes (*P. margaritifera*) was observed during our survey.

**Monk seal** — O'ahu's beaches and coastline are used by the endangered Hawaiian monk seal (*Monachus schauinslandi*) for hauling out and for pupping and nursing. Currently, only the remote Northwestern Hawaiian Islands are considered critical habitat for this species (50 CFR 226.201). However, recently the waters surrounding the Main Hawaiian Islands (MHI) have been proposed as monk seal critical habitat, excluding portions (e.g., boat harbors, cliffs, active lava, and large bays with extensive runoff) of the MHI coastal environments considered hardened shorelines or developed areas that do not have the essential features that would support Hawaiian monk seal use. The Project area does not meet the definition of critical habitat for monk seal. As defined as a location delineated by the identified boundaries, Pearl Harbor to Kapua Channel delineated by all terrestrial coastlines between Keahi point (21°18'57.95" N/157°58'42.82" W) east to eastern edge of the Kapua channel (21°15'28.77" N/157°49'07.51" W) and all waters out to depth of the 3 fathoms (5.4864 m) between the line drawn from Keahi point (21°18'57.95" N/157°58'42.82" W) to meet the 3 fathom (5.5 m) depth contour following the 3-fathom contour east to a line drawn from the eastern edge of the Kapua channel (21°15'28.77" N/157°49'07.51" W) out to meet the 3 fathom contour). The Project area is not proposed as critical habitat for this species (50 CFR 226, June 2, 2011; NOAA-NMFS, 2011).

**Humpback whale** — The humpback whale or *koholā* (*Megaptera novaeangliae*) was listed as endangered in 1970 under the ESA. In 1993 it was estimated that there were 6,000 humpback whales in the North Pacific Ocean, and that 4,000 of those regularly came to the Hawaiian Islands. The population is estimated to be growing at between 4 and 7% per year. Today, as many as 10,000 humpback whales may visit Hawai'i each year (HIHWNMS, 2013a). The waters of the Project area are not within the Hawaiian Islands Humpback Whale National Marine Sanctuary (HIHWNMS, 2013b).

**Coral** — Coral species are protected under Hawai'i State law, which prohibits "breaking or damaging, with any implement, any stony coral from the waters of Hawai'i, including any reef or mushroom coral" (HAR §13-95-70, DLNR, 2010). It is also unlawful to take, break or damage with any implement, any rock or coral to which marine life of any type is visibly attached (HAR §13-95-71, DLNR, 2002). On August 27, 2014, NOAA issued a final rule for listing 20 coral species as threatened under ESA (NOAA-NMFS, 2014). None of these newly listed corals occurs in Hawai'i.

**Seagrass** — Three species of seagrasses are found in Hawai'i: an endemic (*Halophila hawaiiiana*), an indigenous (*Ruppia maritima*), and an introduced species (*Halophila decipiens*). Seagrasses, although not types of grass, are vascular plants and not algae. In general, seagrasses thrive in areas with low sedimentation, adequate water flow, and low wave energy (Hemminga and Duarte, 2000). Previous studies have observed *H. hawaiiiana* and *H. decipiens* in the vicinity of Sand Island, specifically, in sand bottom areas offshore (AECOS, 2010). Seagrass constitutes a unique habitat in Hawaiian waters and both species of *Halophila* are consumed by green sea turtles (Russell et al., 2003). The general degradation of seagrass beds by eutrophication (excessive nutrients from land runoff), sedimentation, chemical poisoning, collecting and gleaning, trampling, anchoring, etc. is a widespread threat to the recovery of depleted sea turtle stocks (NMFS and USFWS, 1998).

Seagrass beds are considered a Special Aquatic Site under the Clean Water Act (Subpart E of 40 CFR Part 230). Special aquatic sites are described in the Act as "... sanctuaries and refuges, wetlands, mud flats, vegetated shallows (seagrass beds), coral reefs, and [stream] riffle and pool complexes." When a project requiring a Clean Water Act, Section 404 permit (regulating the discharge of dredged, excavated, or fill material in wetlands, streams, rivers, and other waters of the U.S.) is proposed to be conducted in a Special Aquatic Site, as part of the permitting process, all alternatives that do not result in a discharge into a Special Aquatic Site are presumed to have lesser adverse impact.

## References

- AECOS, Inc. (AECOS). 1979. Hawaii Coral Reef Inventory: Island of Oahu. Part B – Sectional Map Descriptions. Prep. for: U.S. Army Corp of Engineers, Pacific Ocean Division, Fort Shafter, Hawaii. 552 pp.
- \_\_\_\_\_. 1988a. Biological reconnaissance surveys of selected areas in Ke'ehi Lagoon, O'ahu, Hawaii. Prep. for OI Consultants, Inc., Honolulu. *AECOS* No. 498: 16 pp.
- \_\_\_\_\_. 1988b. Biological reconnaissance survey and environmental assessment for Pier 1 modifications, Honolulu Harbor, Hawaii. *AECOS* Report No. 550.
- \_\_\_\_\_. 2007. Water quality and biological surveys of the proposed small boat shipyard site, Ke'ehi Lagoon, Honolulu, O'ahu, Hawaii. *AECOS* Report No. 1139: 27 pp.
- \_\_\_\_\_. 2010. Marine and Water Quality Surveys for Sand Island Waste Water Treatment Plant & Sewer Basin Facilities, O'ahu, Hawaii. Prep for R.M. Towill Corporation. *AECOS* Report No. 1211: 31 pp.
- \_\_\_\_\_. 2014. Biological and water quality surveys for a proposed shipyard site at Ke'ehi Lagoon Honolulu, O'ahu, Hawaii. *AECOS* Report No. 1139F: 33 pp.
- American Ornithologist's Union (AUO). 2014. American Ornithologist's Union. Updated Check-list of Birds of North and Middle America. Available online at URL: <http://checklist.aou.org/>; last accessed on August 29, 2014.
- Arthur, K. E. and G. H. Balazs. 2008. A comparison of immature green turtles (*Chelonia mydas*) diets among seven sites in the main Hawaiian Islands. *Pacific Science*, 62(2): 205–217.
- Balazs, G. H., H. F. Hirth, P. Kawamoto, E. Nitta, L. Ogren, R. Wass and J. Wetherall. 1992. Recovery plan for Hawaiian sea turtles. *Nat Marine Fish Ser.*, S. F. S. C., Honolulu, Adm. Rep. H-92-01: 76 pp.
- Battista, T. A., Costa, B. M., and S. M. Anderson, S. M. 2007. Shallow-Water Benthic Habitats of the Main Eight Hawaiian Islands (DVD). *NOAA Tech Memo. NOS-NCCOS* 61, Biogeography Branch. Silver Spring, MD. Available

online at URL: [http://ccma.nos.noaa.gov/products/biogeography/hawaii\\_cd\\_07/default.aspx](http://ccma.nos.noaa.gov/products/biogeography/hawaii_cd_07/default.aspx); last accessed December 1, 2011.

- Braimard, R. E., C. Birkeland, C. M. Eakin, P. McElhany, M. W. Miller, M. Patterson, and G. A. Piniak. 2011. Status review report of 82 candidate coral species petitioned under the U.S. Endangered Species Act. U.S. Dep. Commerce, NOAA Tech. Memo., NOAA-TM-NMFS-PIFSC-27, 530 p. + 1 Appendix. Available online at URL: [http://www.pifsc.noaa.gov/library/pubs/tech/NOAA\\_Tech\\_Memo\\_PIFSC\\_27.pdf](http://www.pifsc.noaa.gov/library/pubs/tech/NOAA_Tech_Memo_PIFSC_27.pdf); last accessed December 14, 2013.
- Brock, R. E. 1988a. Green sea turtle population monitoring during blasting work at West Beach, Oahu. Final Report. Prep. for Alfred A. Yee Division, Leo A. Daly. 15 pp.
- \_\_\_\_\_. 1988b. Green turtles (*Chelonia mydas*) at Hawai'i Kai, Hawai'i: An analysis of the impacts with the development of a ferry system. Prep. for Sea Engineering, Inc. 26 pp.
- Chaloupka, M., K. A. Bjorndal, G. H. Balazs, A. B. Bolten, L. M. Ehrhart, C. J. Limpus, H. Suganuma, S. Troeng, and M. Yamaguchi. 2008. Encouraging outlook for recovery of a once severely exploited marine megaherbivore. *Global Ecology and Biogeography*: 17: 297-304.
- Denny, J. 2010. *A Photographic Guide to the Birds of Hawaii: the Main Islands and Offshore Waters*. University of Hawai'i Press. 209pp.
- Grasshoff, K., M. Ehrhardt, and K. Kremling. 1983. *Methods of Seawater Analysis*, second revised and extended edition,
- Hawaii Department of Health (HDOH). 2014a. Hawai'i Administrative Rules, Title 11, Department of Health, Chapter 54, Water Quality Standards. State of Hawai'i, Department of Health. 110 pp.
- \_\_\_\_\_. 2014b. State of Hawaii Water Quality Monitoring and Assessment Report: Integrated Report to the U.S. Environmental Protection Agency and the U.S. Congress Pursuant to §303(d) and §305(b). Clean Water Act (P.L. 97-117). 123 pp.
- Hawaii Department of Land and Natural Resources (DLNR). 1998. Indigenous wildlife, endangered and threatened wildlife and plants, and introduced wild birds. State of Hawai'i, Department of Land and Natural Resources, Administrative Rule §13-124-1 through §13-124-10, with Exhibits.



- Hawaii Department of Land and Natural Resources (DLNR). 2002. Hawai'i Administrative Rules, Title 13, Department of Land and Natural Resources, Chapter 99, Protected Marine Fisheries Resources, Rules Regulating the Taking and Selling of Certain Marine Resources. 14 pp.
- \_\_\_\_\_. 2007. Hawai'i Administrative Rules. Department of Land and Natural Resources. Title 12. Conservation and Resources. Chapter 188. Fishing Rights and Regulations. 5 pp.
- \_\_\_\_\_. 2009. Hawai'i Administrative Rules. Title 13. Department of Land and Natural Resources. Chapter 4. Protected Marine Fisheries. 15 pp.
- Hawaiian Islands Humpback Whale National Marine Sanctuary (HIHWNMS). 2014. HIHWNMS website – Resource Protection. Available online at URL: <http://hawaiiuhumpbackwhale.noaa.gov/>; last accessed October 3, 2014.
- Hemminga, M. A. and C. M. Duarte. 2000. *Seagrass Ecology: An Introduction*. Cambridge University Press, Cambridge, MA. 298 pp.
- Hoover, J. P. 1999. *Hawai'i's sea creatures: a guide to Hawai'i's marine invertebrates*. Mutual Publishing, Honolulu, Hawai'i. 366 pp.
- Huisman, J. M., I. A. Abbott, and C. M. Smith. 2007. *Hawaiian Reef Plants*. Hawai'i Sea Grant College Program, Honolulu, Hawai'i. 264 pp.
- Imada, C. 2012. Hawaiian Native and Naturalized Vascular Plants Checklist: December 2012 update. Bishop Museum Technical Report 60. Hawai'i Biological Survey No. 2012-021. 343 pp.
- Kerouel, R. and A. Aminot. 1997. Fluorometric determination of ammonia in sea and estuarine waters by direct segmented flow analysis. *Marine Chemistry*, 57(3-4): 265-275.
- National Marine Fisheries Service and U.S. Fish and Wildlife Service (NMFS and UFWFS). 1998. Recovery Plan for U.S. Pacific Populations of the Hawksbill Turtle (*Eretmochelys imbricata*). National Marine Fisheries Service, Silver Spring, MD. 95 pp. Available online at URL: [http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle\\_hawksbill\\_pacific.pdf](http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_hawksbill_pacific.pdf).
- \_\_\_\_\_ & \_\_\_\_\_. 1998. Recovery Plan for U.S. Pacific Populations of the Green Turtle (*Chelonia mydas*). National Marine Fisheries Service, Silver Spring, MD. 97 pp. Available online at URL: [http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle\\_green\\_pacific.pdf](http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_green_pacific.pdf); last accessed October 4, 2014.

- National Oceanic and Atmospheric Administration (NOAA). 2002. Department of Commerce, National Oceanic and Atmospheric Administration. 50 CFR 600. Magnuson-Stevens Act Provisions; Essential Fish Habitat (EFH). *Federal Register* 67 (12 ,Thursday, January 17, 2002) 2343-2483.
- \_\_\_\_\_. 2005. Department of Commerce, National Oceanic and Atmospheric Administration. Small Takes of Marine Mammals Incident to Specified Activities; Low-Energy Seismic Survey in the Southwest Pacific Ocean. *Federal Register*, 70 (35; February 10, 2005): 8768 - 8783.
- \_\_\_\_\_. 2014. Tides and currents. Predicted tides at Honolulu Harbor, HI. Station ID: 1612340. Available online at URL: <http://tidesandcurrents.noaa.gov/noaatipredictions/viewDailyPredictions.jsp?bmon=12&bday=12&byear=2014&timelength=daily&timeZone=1&datum=MLLW&timeUnits=2&interval=highlow&Threshold=greaterthanequal&thresholdvalue=&format=Submit&Stationid=1612340>; last accessed January 29, 2015.
- National Oceanic and Atmospheric Administration – National Marine Fisheries Service (NOAA-NMFS). 2007. Green Sea Turtle (*Chelonia mydas*). 5-Year Review: Summary and Evaluation. 105 p. Available online at URL: [http://www.nmfs.noaa.gov/pr/pdfs/species/greenturtle\\_5yearreview.pdf](http://www.nmfs.noaa.gov/pr/pdfs/species/greenturtle_5yearreview.pdf).
- \_\_\_\_\_. 2011. 50 CFR 226. Endangered and threatened wildlife and plants: proposed rulemaking to revise critical habitat for Hawaiian Monk Seals. *Federal Register*, 76 (106; June 2, 2011): 32026-32063. Available online at URL: <http://www.nmfs.noaa.gov/pr/pdfs/fr/fr76-32026.pdf>; last accessed October 3, 2014.
- \_\_\_\_\_. 2014. Department of Commerce. Endangered and Threatened Wildlife and Plants: Final Listing Determination on Proposal to List 66 Reef-building Coral Species and to Reclassify Elkhorn and Staghorn Corals. Available online at URL: [http://www.nmfs.noaa.gov/stories/2014/08/docs/final\\_coral\\_rule.pdf](http://www.nmfs.noaa.gov/stories/2014/08/docs/final_coral_rule.pdf).
- Palmer, D. D. 2003. *Hawai'i's Ferns and Fern Allies*. Univ. of Hawai'i Press, Honolulu. 324 pp.
- Russell, D. J., G. H. Balazs, R. C. Phillips, and A. K. H. Kam. 2003. Discovery of the seagrass *Halophila decipiens* (Hydrocharitaceae) in the diet of the Hawaiian green sea turtle, *Chelonia mydas*. *Pac. Sci.*, 57(4): 393-397.

School of Ocean and Earth Science and Technology (SOEST), 1996. The Ocean Atlas of Hawai'i. Available online at URL: <http://oos.soest.hawaii.edu>; last accessed January 30, 2015.

Sea Engineering, Inc. (SEI). 2007. Coastal engineering assessment of proposed site for Kewalo Shipyard. Prep. for R.M. Towill Corporation, Honolulu, Hawaii. 17 pp.

Standard Methods (SM). 1998. Standard Methods for the Examination of Water and Wastewater. 20<sup>th</sup> Edition. (Greenberg, Clesceri, and Eaton, eds.). APHA, AWWA, & WEF. 1100 pp.

Staples, G. W. and D. R. Herbst. 2005. *A Tropical Garden Flora. Plants Cultivated in the Hawaiian Islands and other Tropical Places*. Bishop Museum, Honolulu. 908 pp.

U.S. Army Corps of Engineers (USACE). 2012. Department of Defense, Department of the Army, Corps of Engineers. Reissuance of Nationwide Permits Notice. *Federal Register*, 77 (34; Tuesday, February 21, 2012): 10184-10290. Available online at URL: <http://www.gpo.gov/fdsys/pkg/FR-2012-02-21/pdf/2012-3687.pdf>; last accessed January 30, 2014.

U.S. Fish and Wildlife Service (USFWS). 2014. USFWS Threatened and Endangered Species System (TESS). Available online at URL: <http://pbadupws.nrc.gov/docs/ML0710/ML071000492.pdf>; last accessed February 10, 2015.

Wagner, W. L., D. R Herbst, and S. H. Sohmer 1990. *Manual of the Flowering Plants of Hawai'i*. University of Hawaii Press, Honolulu, Hawai'i. 1854 pp.

\_\_\_\_\_ and \_\_\_\_\_. 1999. *Supplement to the Manual of the flowering plants of Hawai'i*, pp. 1855-1918. In: Wagner, W.L., D.R. Herbst, and S.H. Sohmer, Manual of the flowering plants of Hawai'i. Revised edition. 2 vols. University of Hawaii Press and B.P. Bishop Museum.



---

## **APPENDIX B:**

Archaeological Assessment,  
Sand Island, O‘ahu, Hawai‘i.

TMKs: [1] 1-5-041:334 por. and 006 por.  
Cultural Surveys Hawai‘i, Inc., January 2015.



**Draft**

**Archaeological Assessment Report for the  
School of Ocean and Earth Science and Technology  
(SOEST) Facility at Sand Island and Floating Dock at the  
Marine Education Training Center (METC)  
Honolulu Ahupua'a, Honolulu (Kona) District, O'ahu  
TMKs: [1] 1-5-041:334 por. and 006 por.**

Prepared for  
Wilson Okamoto Corporation

Prepared by  
Richard T. Stark, Ph.D.,  
Layne Krause, B.A.,  
Scott A. Belluomini, B.A.,  
David W. Shideler, M.A.,  
and  
Hallett H. Hammatt, Ph.D.

Cultural Surveys Hawai'i, Inc.  
Kailua, Hawai'i  
(Job Code: HONOLULU 56)

January 2015

O'ahu Office  
P.O. Box 1114  
Kailua, Hawai'i 96734  
Ph.: (808) 262-9972  
Fax: (808) 262-4950

Maui Office  
1860 Main St.  
Wailuku, Hawai'i 96793  
Ph.: (808) 242-9882  
Fax: (808) 244-1994

[www.culturalsurveys.com](http://www.culturalsurveys.com)

**Management Summary**

<b>Reference</b>	Archaeological Assessment for the School of Ocean and Earth Science and Technology (SOEST) Facility at Sand Island and Floating Dock at the Marine Education Training Center (METC) Honolulu Ahupua'a, Honolulu (Kona) District, O'ahu TMKs: [1] 1-5-041:334 por. and 006 por. (Stark et al. 2015)
<b>Date</b>	January 2015
<b>Project Number(s)</b>	Cultural Surveys Hawai'i, Inc. (CSH) Job Code: HONOLULU 56
<b>Investigation Permit Number</b>	CSH completed the archaeological assessment (AA), initially termed archaeological inventory survey (AIS) fieldwork under archaeological permit number 14-04, issued by the Hawai'i State Historic Preservation Division (SHPD) per Hawai'i Administrative Rules (HAR), §13-13-282.
<b>Agencies</b>	State Historic Preservation Department (SHPD)
<b>Land Jurisdiction</b>	University of Hawai'i, School of Ocean and Earth Science and Technology
<b>Project Proponent</b>	Wilson Okamoto Corporation
<b>Project Funding</b>	University of Hawai'i
<b>Project Location</b>	Sand Island at the School of Ocean and Earth Science Technology facility off Sand Island Parkway at the Marine Education Training Center (METC), Honolulu Ahupua'a, Honolulu (Kona) District, O'ahu, TMKs: [1] 1-5-041:334 por. and 006 por.
<b>Project Description</b>	This project will include grading and paving about half of Parcel B on the METC side and the installation of fencing and security lighting. These improvements will be utilized by scientists to bring in their storage containers of samples or various structures for storage. They will also utilize the space to store trailered boats and park vehicles.
<b>Project Acreage</b>	5.53 acres (2.17 hectares) total, made up of Parcel B at 4.6 acres (1.86 hectares), Easement 1 at 0.65 acres (0.26 hectares), and Easements 2 and 3 at 0.1 acres (0.04 hectares)
<b>Area of Potential Effect (APE) and Survey Area Acreage</b>	The area of potential effect (APE) for this project includes 100% of the project area, with emphasis on Parcel B and little to no impacts on the easements. The archaeological survey and subsurface testing focuses on Parcel B (4.6 acres/1.86 hectares) and the underwater archaeological observations focus on Easement 1 (0.65 acres/0.26 hectares).
<b>Historic Preservation Regulatory Context</b>	This archaeological investigation fulfills the requirements of HAR §13-13-276-5 and was conducted to identify, document, and assess significance of any historic properties. This document is intended to support the proposed project's historic preservation review under Hawai'i Revised Statutes (HRS) §6E-8 and HAR §13-13-275, as well as the project's environmental review under HRS §343. It is also intended

	<p>to support any project-related historic preservation consultation with stakeholders, such as state and county agencies and interested Native Hawaiian Organizations (NHOs) and community groups. Because no historic properties were identified within the project area during the initial AIS, this investigation is termed an archaeological assessment (AA) per HAR §13-13-275-5(b)(5)(A): "Results of the survey shall be reported either through an archaeological assessment, if no sites were found, or an archaeological survey report which meets the minimum standards set forth in HAR §13-13-276. An archaeological assessment shall include the information on the property and the survey methodology as set forth in subsections in HAR §13-13-275-5 (a) and (c), as well as a brief background section discussing the former land use and types of sites that might have been previously present." No human skeletal remains were discovered during this archaeological investigation that complied with Hawai'i State burial law (HRS §6E-43 and HAR §13-13-300). In consultation with the SHPD, this AA report was prepared to fulfill the requirements of HAR §13-13-276 and Hawai'i State significance assessments for any cultural resources/historic properties<sup>2</sup> and is intended for review and acceptance by the SHPD.</p>
<p><b>Fieldwork Effort</b></p>	<p>CSH completed the fieldwork component of this AA between 25 November 2014 and 28 November 2014 by CSH archaeologists Scott A. Belluomini, B.A., Layne Krause B.A., and Richard Stark, Ph.D. under the general supervision of project manager David Shideler, M.A. and principal investigator, Hallett Hammatt, Ph.D. This work required approximately 10 person-days to complete. In general, fieldwork included 100% pedestrian inspection of the project area, GPS data collection, subsurface testing, and an underwater survey.</p>
<p><b>Consultation</b></p>	<p>Consultation included a meeting at Sand Island, on the beach across the dredged sea plane runway channel from the current houses on Mokauea Island, on 30 December 2014 between Kēhaulani Kupihea, Joni Bagoood, and Richard Stark to discuss traditionally named places, traditional uses of the Mokauea Fishery, the history of Mokauea Island, including the dredging and evictions as well as ongoing educational programs on Mokauea Island. Kēhaulani Kupihea shared a power point that she has used as an introduction to educational programs on Mokauea Island. She also generously offered to share for this report images she has collected and created for educational programs through the Mokauea Fishermen's Association. Joni Bagoood, a resident of Mokauea Island since 1979, discussed struggles with self-determination in living on Mokauea Island and concerns regarding their ongoing lease with the DLNR that expires in 2043.</p>
<p><b>Historic Properties Identified</b></p>	<p>None</p>

<p><b>Effect Recommendation</b></p>	<p>CSH's project specific effect recommendation is "no historic properties affected." No evidence of traditional Hawaiian culture was observed. A few historic artifacts were observed but were not concentrated and are not intrinsically associated with any new historic property. No discrete cultural layers nor pit features were observed.</p>
<p><b>Mitigation Recommendations</b></p>	<p>No historic properties are noted within the project area and no further archaeological work is recommended for the project area.</p>

<sup>1</sup>In historic preservation parlance, cultural resources are the physical remains and/or geographic locations that reflect the activity, heritage, and/or beliefs of ethnic groups, local communities, states, and/or nations. Generally, they are at least 50 years old (although there are exceptions) and include buildings and structures; groupings of buildings or structures (historic districts); certain objects; archaeological artifacts, features, sites, and/or deposits; groupings of archaeological sites (archaeological districts); and, in some instances, natural landscape features and/or geographic locations of cultural significance.

Under Hawai'i State historic preservation legislation, historic properties are defined as any cultural resources that are 50 years old, regardless of their historic/cultural significance under State law, and a project's effect and potential mitigation measures are evaluated based on the project's potential impact to "significant" historic properties (those historic properties evaluated as significant under Hawai'i State historic property significance criteria).

<sup>2</sup>Historic property significance is evaluated based on the project's potential impact to "significant" historic properties. To be considered significant an historic property should possess integrity of location, design, setting, materials, workmanship, feeling, and/or association and meet one or more of the following broad cultural/historic significance criteria: "a" reflects major trends or events in the history of the state or nation; "b" is associated with the lives of persons significant in our past; "c" is an excellent example of a site type/work of a master; "d" has yielded or may be likely to yield information important in prehistory or history; and "e" has traditional cultural significance to an ethnic group (includes religious structures, burials, and traditional cultural properties).

## Table of Contents

Management Summary .....	i
<b>Section 1 Introduction .....</b>	<b>1</b>
1.1 Project Background .....	1
1.2 Historic Preservation Regulatory Context and Document Purpose .....	1
1.2.1 Definitions of Cultural Resources and Historic Properties .....	6
1.3 Environmental Setting .....	6
1.3.1 Natural Environment .....	6
1.3.1 Built Environment .....	8
<b>Section 2 Methods .....</b>	<b>11</b>
2.1 Field Methods .....	11
2.1.1 Pedestrian and Aquatic Surveys .....	11
2.1.2 Subsurface Testing .....	11
2.2 Artifact Analysis .....	13
2.3 Disposition of Materials .....	13
2.4 Research Methods .....	13
2.5 Consultation Methods .....	13
<b>Section 3 Background Research .....</b>	<b>14</b>
3.1 Traditional and Historical Background .....	14
3.1.1 Traditional Place Names .....	14
3.1.2 Mythological Accounts: <i>Mo'olelo</i> .....	18
3.1.3 Traditional Knowledge and Practice .....	19
3.1.4 1800s .....	24
3.1.5 The Māhele and the Kuleana Act .....	26
3.1.6 1900s .....	29
3.2 Previous Archaeological Research .....	41
3.3 Background Summary and Predictive Model .....	51
<b>Section 4 Results of Fieldwork .....</b>	<b>52</b>
4.1 Pedestrian and Underwater Inspection Results .....	52
4.2 Subsurface Testing Results .....	54
4.2.1 Test Excavation T-1 .....	55
4.2.2 Test Excavation T-2 .....	58
4.2.3 Test Excavation T-3 .....	62
4.2.4 Test Excavation T-4 .....	65
4.2.5 Test Excavation T-5 .....	69
4.2.6 Test Excavation T-6 .....	72
4.2.7 Test Excavation T-7 .....	76
4.2.8 Test Excavation T-8 .....	81
4.2.9 Test Excavation T-9 .....	84
4.2.10 Test Excavation T-10 .....	87
4.2.11 Test Excavation T-11 .....	90
<b>Section 5 Artifact Analysis .....</b>	<b>94</b>
<b>Section 6 Consultation .....</b>	<b>105</b>

<b>Section 7 Summary and Interpretation .....</b>	<b>106</b>
<b>Section 8 Significance Assessments .....</b>	<b>107</b>
<b>Section 9 Project Effect and Mitigation Recommendations .....</b>	<b>108</b>
9.1 Project Effect .....	108
9.2 Mitigation Recommendations .....	108
<b>Section 10 References Cited .....</b>	<b>109</b>
<b>Appendix A Ipu Ho'olele Wa'a: Navigation Gourd Notes .....</b>	<b>115</b>
<b>Appendix B Original LCA Claims Discussed in this Report .....</b>	<b>119</b>
<b>Appendix C Consultation Interview with Kēhaulani Kupihea and Joni Bagoood .....</b>	<b>123</b>



## List of Figures

Figure 1. Portion of the 1998 Honolulu USGS 7.5 minute topographic quadrangle indicating the project area.....	2
Figure 2. Tax Map Key (TMK) [1] 1-5-41 indicating the project area (Hawai'i TMK Service 2014).....	3
Figure 3. Aerial photograph indicating the project area (Google Earth 2013).....	4
Figure 4. Project area overlay from the client indicating subdivided portions of the project area: Parcel B, and Easements 1, 2, and 3.....	5
Figure 5. Portion of the 1998 Honolulu USGS 7.5 minute topographic quadrangle indicating Kalihī, Kapālama, Waolani, Pauoa and Nu'uānuu streams in relation to the project area.....	7
Figure 6. Overlay of <i>Soil Survey of the State of Hawai'i</i> (Foote et al. 1972), indicating soil types within and surrounding the project area (U.S. Department of Agriculture Soils Survey Geographic Database [SSURGO] 2001 with Google Earth 2013).....	9
Figure 7. Test excavation locations within the project area (Google Earth 2013).....	12
Figure 8. Overlay map indicating where the original fishponds would be today (courtesy of Jason Jeremiah 2015).....	15
Figure 9. David Malo Kupihea, King Kalākaua's royal fishpond keeper, Ke'ehi Lagoon at Kalihī, photo by Theodore Kelsey (Hawaiian Historical Society).....	17
Figure 10. Dr. Kenneth Emory of the Bishop Museum, Herb Kane, expert in Pacific canoes; and Wallace Froiseth, well known canoe restorer and founder of the Waikiki Canoe Club examine a traditional canoe on Mokauea Island in 1975 (Napoka 1976:photograph 17).....	21
Figure 11. Traditional canoe from Mokauea Island (Kai Makana 2015).....	22
Figure 12. <i>Ipuho 'okelewa'a</i> , replica created by Kupihea (photo courtesy of Kēhaulani Kupihea).....	23
Figure 13. Portion of the 1886 Lyons map of Kalihī Reef Titles, indicating the eastern portion of Mokauea Island within the project area and LCA 10611 indicated by the red arrow.....	27
Figure 14. Portion of the 1913 Monsarrat map of O'ahu fisheries indicating the project area within a portion of the Mokauea Fishery.....	28
Figure 15. 1924 photograph of Honolulu Harbor; note Ananoho, Auiki, and Pahouiki fishponds in the background (Hawai'i State Archives, digital collection).....	30
Figure 16. Portion of the 1943 U.S. Army War Department Terrain map, Honolulu Quadrangle, showing Kalihī Channel, Quarantine Island, one house on the portion of Mokauea Island not severed by the seaplane runway channel dredging and the project area to the east of the seaplane runway.....	32
Figure 17. Portion of the 1919 U.S. Army War Department Fire Control Map, Honolulu Quadrangle, indicating fishponds, Quarantine Island, and a portion of the project area within a portion of Mokauea Island.....	33
Figure 18. 1920-1930 photograph of Honolulu Harbor with a red arrow indicating the approximate location of the project area within the network of Mokauea Fishery tidal flats (Hawai'i State Archives, digital collection).....	34
Figure 19. 1930 photograph of Honolulu Harbor (Hawai'i State Archives, digital collection).....	35

Figure 20. 1941 photograph of Honolulu and the Mokauea Fishery (Hawai'i State Archives, digital collection).....	36
Figure 21. Portion of a 1952 Sand Island Coast aerial photograph indicating the project area on the east side of the dredged sea plane runway in Kalihī Channel and the remaining portion of Mokauea Island approximately 500 m west across the seaplane runway channel (UH SOEST).....	37
Figure 22. Portion of the 1953 Honolulu USGS topographic quadrangle showing Mokauea Island inhabited by approximately nine houses and severed on its eastern margin by the seaplane runway and the project area under the jurisdiction of the Sand Island Military Reservation.....	38
Figure 23. Portion of the 1969 Honolulu USGS topographic quadrangle indicating Kalihī Channel, Mokauea Island, and the project area.....	39
Figure 24. 1978 USGS aerial showing the project area on the east side of Kalihī Channel and contemporary Mokauea Island community immediately across the channel to the west.....	40
Figure 25. Previous archaeological studies within the vicinity of the project area (Google Earth 2013).....	45
Figure 26. Previously recorded archaeological sites within the vicinity of the project area (Google Earth 2013).....	46
Figure 27. McAllister's (1933:90) map of Moanalua Valley showing Sites 73-91.....	47
Figure 28. General view of CSH archaeologist in Easement 1 during the underwater survey.....	52
Figure 29. Pipe and rectangular concrete block observed during underwater survey of Easement 1 (archaeologist's metal detector at upper right).....	53
Figure 30. Pipe observed during underwater survey of Easement 1.....	53
Figure 31. Steel grates observed during underwater survey of Easement 1.....	54
Figure 32. T-1 south sidewall profile, oblique view to northeast.....	55
Figure 33. T-1 Oblique profile view to southwest.....	56
Figure 34. Profile drawing of T-1 south sidewall.....	57
Figure 35. General overview of T-2 to the southwest, noting the current location of Mokauea Island in the distance across the dredged seaplane runway channel.....	58
Figure 36. T-2 oblique profile view to northeast.....	59
Figure 37. T-2 plan view to southwest.....	60
Figure 38. Profile drawing of T-2 south sidewall.....	61
Figure 39. T-3 south sidewall profile, oblique view to southeast.....	62
Figure 40. T-3 south sidewall profile, view to southwest.....	63
Figure 41. Profile drawing of T-3 south wall profile.....	64
Figure 42. T-4 southwest sidewall profile, oblique view to south with blue arrow indicating natural sediments in Stratum II at 140 cmbs.....	65
Figure 43. T-4 southwest sidewall profile view to north.....	66
Figure 44. T-4 plan view to south-southwest.....	67
Figure 45. Profile drawing of T-4 southwest sidewall.....	68
Figure 46. T-5 southwest sidewall profile, view to southwest with blue arrow indicating natural sediments in Stratum II at the BOE.....	69
Figure 47. T-5 southwest sidewall profile view to west with metric tape resting on the BOE at the mid-trench step.....	70

Figure 48. Profile drawing of T-5 southwest sidewall.....	71
Figure 49. T-6 southwest sidewall profile, oblique view to west.....	72
Figure 50. T-6 southwest sidewall profile, close-up oblique view to west.....	73
Figure 51. T-6 southwest sidewall profile oblique view to south.....	74
Figure 52. Profile drawing of T-6 southwest sidewall.....	75
Figure 53. T-7 northeast sidewall profile oblique view to north with red arrow indicating carpet strands and green garden hose in the profile.....	76
Figure 54. T-7 northeast sidewall profile close-up at the base of excavation, view to east to the BOE.....	77
Figure 55. T-7 northeast sidewall profile at the base of excavation, view to north with blue arrow indicating small protuberance of natural sediments in Stratum II at the BOE.....	78
Figure 56. T-7 view to north of automobile tire in situ, 110 cm below the surface with underlying red arrow indicating carpet strands.....	79
Figure 57. Profile drawing of T-7 northeast sidewall.....	80
Figure 58. T-8 southwest sidewall profile, view to west with orange arrow indicating metal cable fragment.....	81
Figure 59. T-8 southwest sidewall profile, view to south with red arrow indicating PVC pipe fragment and orange arrow indicating metal cable fragment.....	82
Figure 60. Profile view of T-8 southwest sidewall.....	83
Figure 61. T-9 southwest sidewall profile, oblique view to south.....	84
Figure 62. T-9 plan view to west.....	85
Figure 63. Profile drawing of T-9 southwest wall profile.....	86
Figure 64. T-10 southwest sidewall profile, oblique view to west.....	87
Figure 65. T-10 southwest wall profile, oblique close up of BOE, view to west.....	88
Figure 66. Profile drawing of T-10 southwest sidewall.....	89
Figure 67. T-11 southeast sidewall profile, view to southeast.....	90
Figure 68. T-11 base of excavation, southeast sidewall profile, oblique view to east.....	91
Figure 69. T-11 southeast sidewall profile, view to south.....	92
Figure 70. Profile drawing of T-11 south sidewall.....	93
Figure 71. Acc. # 1, glass bottle recovered from Stratum Ia-Ib (0-200 cmbs) in T-7, profile view.....	97
Figure 72. Acc. # 1, glass bottle recovered from Stratum Ia-Ib (0-200 cmbs) in T-7, basal view.....	97
Figure 73. Acc. # 2, glass bottle recovered from Stratum Ia-Ib (0-200 cmbs) in T-7, profile view.....	98
Figure 74. Acc. # 2, glass bottle recovered from Stratum Ia-Ib (0-200 cmbs) in T-7, basal view.....	98
Figure 75. Acc. # 3, playing card recovered from Stratum Ia-Ib (0-200 cmbs) in T-7, dorsal view.....	99
Figure 76. Acc. # 3, playing card recovered from Stratum Ia-Ib in T-7 (0-200 cmbs), ventral view.....	99
Figure 77. Acc. # 4, clay brick recovered from Stratum Ia (0-105 cmbs) in T-9.....	100
Figure 78. Acc. # 4, clay brick recovered from Stratum Ia (0-105 cmbs) in T-9.....	100
Figure 79. Acc. # 5, steel hook and observed Stratum Ia (0-90 cmbs) in T-8.....	101

Figure 80. Acc. # 6 recovered from Stratum Ia (0-90 cmbs) in T-8.....	102
Figure 81. Acc. # 6 recovered from Stratum Ia (0-90 cmbs) in T-8, side view.....	103
Figure 82. Acc. # 6 recovered from Stratum Ia (0-90 cmbs) in T-8, basal view.....	103
Figure 83. Acc. # 6, from Stratum Ia (0-90 cmbs) in T-8, illustrated side view, noting inscription (illustration by Megan Hawkins).....	104
Figure 84. Kamakau's illustrated guide to the Hawaiian navigational gourd (Johnson and Mahelona 1975:71, Figure 4).....	118

## List of Tables

Table 1. Previous Archaeological Studies in the Vicinity of the Project Area.....	42
Table 2. Stratigraphic Description of T-1.....	57
Table 3. Stratigraphic Description of T-2.....	61
Table 4. Stratigraphic Description of T-3.....	64
Table 5. Stratigraphic Description of T-4.....	68
Table 6. Stratigraphic Description of T-5.....	71
Table 7. Stratigraphic Description of T-6.....	75
Table 8. Stratigraphic Description of T-7.....	80
Table 9. Stratigraphic Description of T-8.....	83
Table 10. Stratigraphic Description of T-9.....	86
Table 11. Stratigraphic Description of T-10.....	89
Table 12. Stratigraphic Description of T-11.....	93
Table 13. Summary of Artifacts Collected from subsurface testing within the project area.....	95

## Section 1 Introduction

### 1.1 Project Background

At the request of Wilson Okamoto Corporation, Cultural Surveys Hawaii 'i, Inc. (CSH) has prepared this archaeological assessment (AA) for the SOEST (School of Ocean and Earth Science and Technology) facility at Sand Island and Floating Dock at the METC (Marine Education and Training Center), Honolulu Ahupua'a, Honolulu District, O'ahu, TMK: [1] 1-5-041:334 por. and 006 por. The project area is depicted on a portion of the 1998 Honolulu U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 1), a tax map plat (Figure 2), and a 2013 aerial photograph (Figure 3). This project will include the installation of fencing and additional security lighting in Parcel B and paving about half of Parcel B on the METC side (Figure 4). These improvements will be utilized by SOEST and METC scientists for storage containers for samples, trailered boats, and vehicles. There will be no additional offices, restrooms nor daily occupation. Ground disturbance is expected in the form of grading prior to paving and excavation of holes for fence posts and additional light poles throughout the project area.

CSH completed the fieldwork component of this AA between 25 November 2014 and 28 November 2014 by CSH archaeologists Scott A. Belluomini, B.A., Layne Krause B.A., and Richard Stark, Ph.D. under the general supervision of project manager David Shideler and principal investigator, Hallett Hammat, Ph.D. This work required approximately 10 person-days to complete. In general, fieldwork included 100% pedestrian inspection of the project area, an underwater survey, GPS data collection, and subsurface testing.

### 1.2. Historic Preservation Regulatory Context and Document Purpose

This archaeological assessment is subject to review under Hawai'i Revised Statutes (HRS) §6E-8 and Hawai'i Administrative Rules (HAR) §13-13-275. This archaeological assessment investigation fulfills the requirements of HAR §13-13-276 and was conducted to identify, document, and make significance assessments of any historic properties. This document is intended to support the proposed project's historic preservation review under HRS §6E-8 and HAR) §13-13-275, as well as the project's environmental review under HRS §343. It is also intended to support any project-related historic preservation consultation with stakeholders, such as state and county agencies and interested Native Hawaiian Organizations (NHOs) and community groups. No human skeletal remains were discovered during this AA investigation that complied with Hawai'i State burial law (HRS §6E-43 and HAR §13-13-300). As no historic properties were identified within the project area during fieldwork, this investigation is termed an archaeological assessment, per HAR §13-13-275-5(b)(5)(A): "Results of the survey shall be reported either through an archaeological assessment, if no sites were found, or an archaeological survey report which meets the minimum standards set forth in HAR §13-13-276. An archaeological assessment shall include the information on the property and the survey methodology as set forth in subsections in HAR §13-13-275-5(a) and (c), as well as a brief background section discussing the former land use and types of sites that might have been previously present." This report is prepared to fulfill the requirements of significance assessment for any cultural resources/historic properties and is intended for review and acceptance by the SHPD.

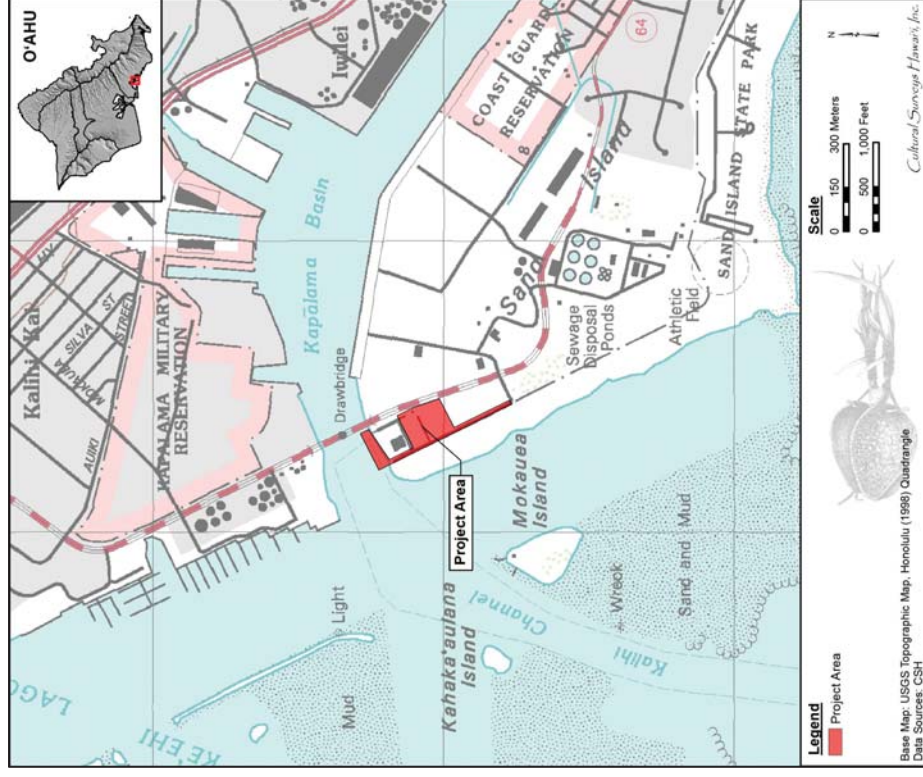


Figure 1. Portion of the 1998 Honolulu USGS 7.5 minute topographic quadrangle indicating the project area



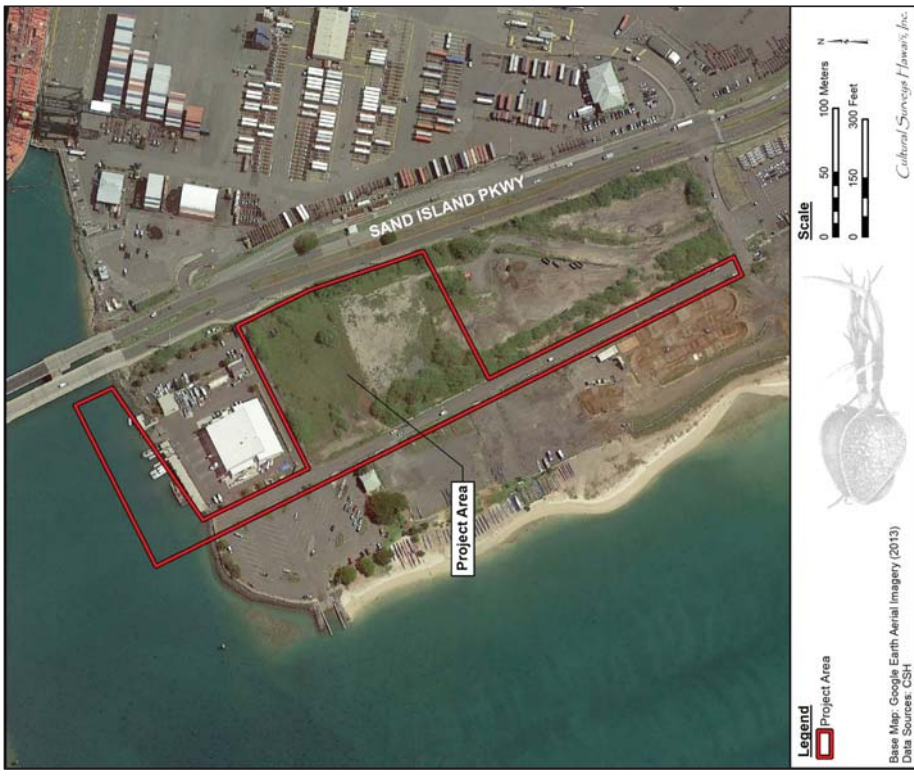


Figure 3. Aerial photograph indicating the project area (Google Earth 2013)

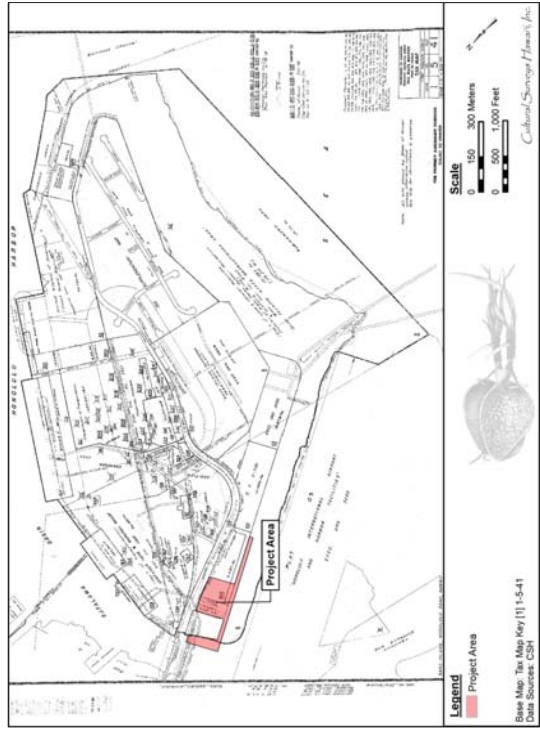


Figure 2. Tax Map Key (TMK) [1] 1-5-41 indicating the project area (Hawaii's TMK Service 2014)

### 1.2.1 Definitions of Cultural Resources and Historic Properties

As discussed in the following paragraphs, there are important distinctions between the Federal and Hawaii's State definitions of historic properties. To eliminate any confusion these different definitions might cause, CSH has opted in this document to use the more generic term "cultural resources" as defined below in its discussion of the cultural remains within the current project area.

In historic preservation parlance, cultural resources are the physical remains and/or geographic locations that reflect the activity, heritage, and/or beliefs of ethnic groups, local communities, states, and/or nations. Generally, they are at least 50 years old (although there are exceptions) and include buildings and structures; groupings of buildings or structures (historic districts); certain objects; archaeological artifacts, features, sites, and/or deposits; groupings of archaeological sites (archaeological districts); and in some instances, natural landscape features and/or geographic locations of cultural significance.

Under Hawaii's State historic preservation legislation, historic properties are defined as any cultural resources that are 50 years old, regardless of their historic/cultural significance under State law, and a project's effect and potential mitigation measures are evaluated based on the project's potential impact to "significant" historic properties (those historic properties evaluated as significant under the five Hawaii's State historic property significance criteria).

## 1.3 Environmental Setting

### 1.3.1 Natural Environment

The climate of Sand Island is typical of leeward coast lowlands, with abundant sunshine and approximately 23 to 31 inches (600 to 800 mm) of rainfall per year (Giambelluca et al. 1986). The vegetation of Sand Island is influenced by the "low rainfall, saline soil and the man-made origin of the area and the high degree of development and human activity (CSX World Terminals Consulting 2001:8). *Haole koa (Leucocephala leucaena)* and *kiawe trees (Prosopis juliflora)* dominate the current natural vegetation in the project area and it was at Sand Island that *Prosopis juliflora* (long-thorned *Kiawe*) was first observed in Hawaii in 1978 (Gonser 2001). Five primary streams with numerous smaller tributaries flow into the marine environment immediately surrounding the project area: Kalihī, Kapālama, Waolani, Pauoa, and Nu'uānu (Figure 5).

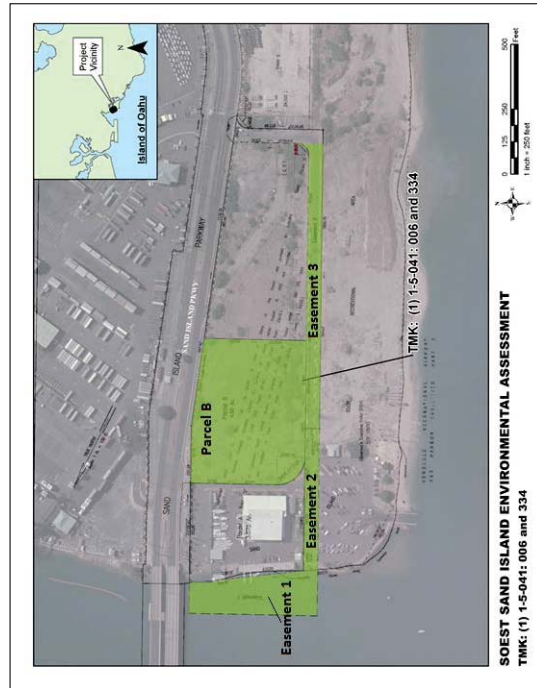


Figure 4. Project area overlay from the client indicating subdivided portions of the project area: Parcel B, and Easements 1, 2, and 3

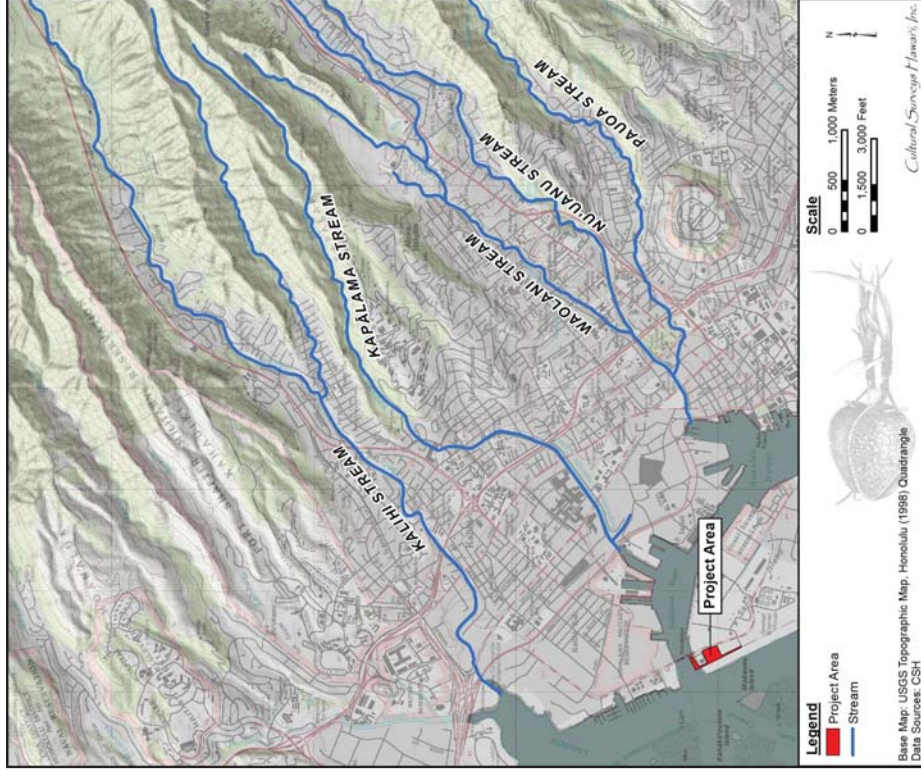


Figure 5. Portion of the 1998 Honolulu USGS 7.5 minute topographic quadrangle indicating Kalihī, Kapālama, Waolani, Pauoa and Nu‘uanu streams in relation to the project area

Mokaeua Island currently represents approximately 1.4 acres approximately 500 m to the west of the project area across from the sea plane runway. This and the other small islands within the Mokaeua Fishery originally formed on a reef platform extending throughout the Ke‘ehi Lagoon. The original extent of Mokaeua Island within the project area helped shelter Honolulu Harbor from the open sea.

Dredging and mechanized filling of the area beginning in the early twentieth century significantly changed the natural environment of this reef system while obliterating most of the naturally placed sediments of the eastern portion of Mokaeua Island. A natural channel from the mouth of the Kalihī and Kahaiki streams meanders through this reef system to the west of the project area. According to Oahu Commercial Harbors 2020 Master Plan report, Honolulu Harbor

... was created by freshwater flows from Nuuanu Valley which inhibited coral growth within a small, reefed basin and cut several channels through the surrounding reef. Between these outflows, rose occasional spots of earth and coral—the beginnings of Sand Island. [Oahu Commercial Harbors 2020 Master Plan 1997:IV-1]

That is, the project area exists today in what is referred to as Sand Island and the current extent of Mokaeua Island represents the western portion of the island not obliterated by historic dredging. The existing portion of Mokaeua Island, well outside and to the west of the project area, appears to have received some of the spoils from the dredging of the seaplane channel.

Mokaeua Island, Kahaka‘aulana Island, and other small islets in the vicinity are part of a larger lagoon and reef barrier biome referred to as Ke‘ehi Lagoon. “Prior to dredging and filling of Honolulu Harbor, the Sand Island area originally consisted of marginal lands: mainly submerged coral reefs, mudflats and islands of varying sizes, shapes and elevations” (CSX World Terminals Consulting 2001:5). According to the U.S. Department of Agriculture (USDA) Soil Survey Geographic (SSURGO) database (2001) and soil survey data gathered by Foote et al. (1972), the project area currently consists of land classified as fill (Figure 6):

[FL] This land type consists of areas filled with material from dredging, excavation from adjacent uplands, garbage, and bagasse and slurry from sugar mills . . . Fill land, mixed. This land type occurs mostly near Pearl Harbor and in Honolulu, adjacent to the ocean. It consists of areas filled with material dredged from the ocean or hauled from nearby areas, garbage, and general material from other sources. Included in mapping were a few areas that have been excavated. This land type is used for urban development including airports, housing areas, and industrial facilities. [Foote et al. 1972:31]

**1.3.1 Built Environment**

Sand Island, a man-made island within Honolulu Harbor is

... the largest and most singularly important of Oahu’s and the State’s commercial harbors. Its success as a world-renowned port is responsible for the evolution of an ancient Hawaiian village into the State’s capitol city. This city takes its name from the harbor and together, they support the island’s 884,000 residents, the heart of the State’s business and commercial operations, and the main tourist center . . . Honolulu Harbor bears an awesome responsibility as the State’s port of entry for



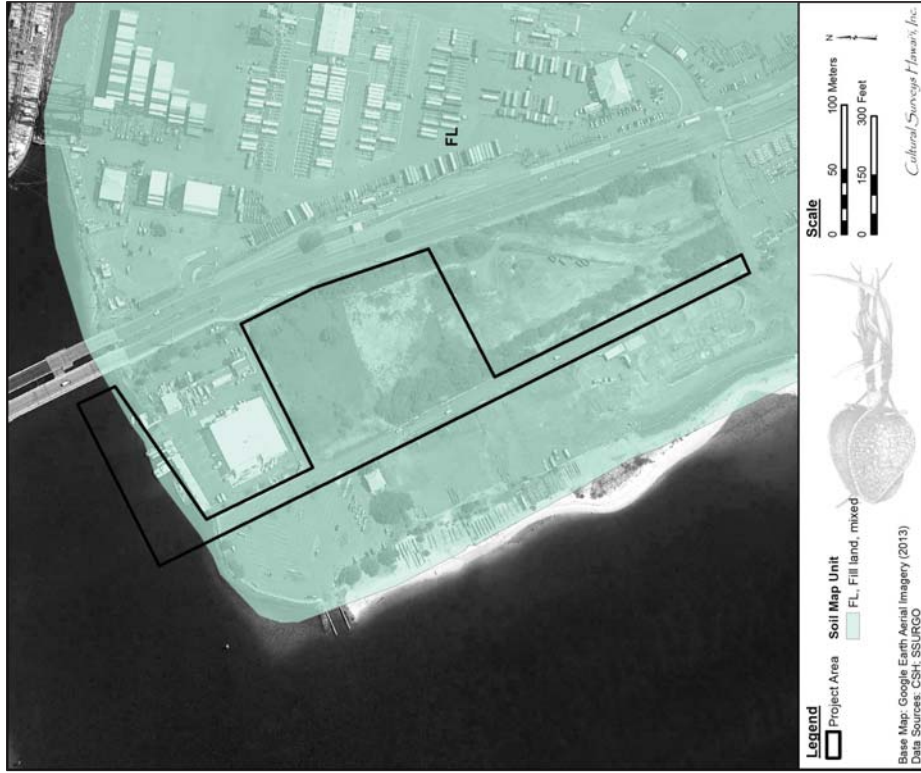


Figure 6. Overlay of *Soil Survey of the State of Hawaii* (Foote et al. 1972), indicating soil types within and surrounding the project area (U.S. Department of Agriculture Soils Survey Geographic Database [SSURGO] 2001 with Google Earth 2013)

nearly all imported goods—a figurative umbilical cord sustaining Hawaii’s modern life. [Oahu Commercial Harbors 2020 Master Plan 1997:IV-1]

Referred to now as a portion of Sand Island, the project area appears to be almost entirely built of historic fill and mechanically modified sediments. The project area is on the east side of the sea plane runway in Kalihi Channel and the contemporary location of Mokauea Island development was further built from dredging sediments immediately west across the channelized water runway to the west of the project area. The project area is within a heavily urbanized and industrialized portion of Honolulu, adjacent to and nearby Sand Island State Park, a U.S. Coast Guard Station, industrial facilities, storage yards, Fort Armstrong, and the downtown waterfront areas of Iwilei, Waiakamilo, and Mokauea.

## Section 2 Methods

### 2.1 Field Methods

CSH completed the fieldwork component of this archaeological assessment under archaeological permit number 14-04, issued by the SHPD pursuant to HAR §13-13-282. Fieldwork was conducted between 25 November 2014 and 28 November 2014 by CSH archaeologists Scott A. Belluomini, B.A., Layne Krause, B.A., and Richard Stark, Ph.D. under the general supervision of project manager David Shideler, M.A. and principal investigator Hallett Hammatt, Ph.D. This work required approximately 10 person-days to complete. In general, fieldwork included 100% pedestrian and underwater inspection of the project area, GPS data collection, and subsurface testing.

#### 2.1.1 Pedestrian and Aquatic Surveys

Pedestrian inspection of the project area was undertaken for the purpose of cultural resource identification, documentation, to locate utilities for avoidance during subsurface testing, and to determine the best locations of the backhoe trenches. Within Parcel B and Easements 1, 2, and 3, all visible surfaces were thoroughly investigated for potential cultural resources and active utilities. A 12-inch water line and valve was located in the northeast quadrant of Parcel B, with one visible radiant east-west line through the project area and in the general direction of the public beach bathrooms at the Sand Island Beach Park (Figure 7).

On 30 December 2014, CSH archaeologists conducted an underwater survey of the 150-m long by 50-m wide (7,500 sq m or 1.85 acres) submerged portion of the project area. SCUBA equipment was used given the depth of the water. A team of three divers swam four east-west transects with divers spaced at roughly 3 m intervals. The submerged section of the project area is located within the Kaihi Channel. The depth of the channel varied between 1.5–10.0 m (5–33 ft) and visibility was approximately 3 m (10 ft).

#### 2.1.2 Subsurface Testing

The subsurface testing program was backhoe assisted and involved 11 test excavations (see Figure 7). In general, linear trenches measuring approximately 6.0 m (20 ft) long and 0.6 m (2 ft) wide were excavated within the project area. The trenches were distributed throughout the project area to provide comprehensive testing coverage, with specific emphasis on locating, if existent, natural in situ sediments from Mokauea Island and avoiding the active water utilities identified during the pedestrian survey. The dimensions of test excavations typically measure approximately 6.0 m (20 ft) long by 0.80 m (2.6 ft) wide. The depth of excavation typically extends to 2.0 m (6.6 ft), varying from 1.7 m (5.6 ft) to up to 3.2 m (10.5 ft). For trench stability and access, one portion of each trench was excavated with a mid-trench steps (~1.0 m), with the other half of the excavation extending deeper, typically to 2.0 m below surface.

A stratigraphic profile of each trench test excavation was drawn and photographed. The observed sediments were described using standard USDA soil description observations/terminology. Sediment descriptions included Munsell color; texture; consistence; structure; plasticity; cementation; origin of sediments; descriptions of any inclusions, such as cultural material and/or roots; lower boundary distinctiveness and topography; and other general



Figure 7. Test excavation locations within the project area (Google Earth 2013)



observations. Where stratigraphic anomalies or potential cultural deposits were exposed, these were carefully represented on test excavation profile maps.

## 2.2 Artifact Analysis

In general, artifact analysis focused on establishing, to the greatest extent possible, material type, function, cultural affiliation, and age of manufacture. As applicable, artifacts were washed, sorted, measured, weighed, described, photographed, and catalogued. Diagnostic (dateable or identifiable) attributes of artifacts were researched and analyzed; materials are tabulated and presented in Section 5, Artifact Analysis. No traditional Hawaiian material was observed.

## 2.3 Disposition of Materials

Materials collected during this AA remain temporarily curated at the CSH office in Waimānalo, O'ahu. CSH will make arrangements with the landowner regarding the disposition of this material. Should the landowner request different archiving of material, an archive location will be determined in consultation with the SHPD. All data generated during the course of the AA are stored at the CSH offices.

## 2.4 Research Methods

Background research included a review of previous archaeological studies on file at the SHPD; review of documents at Hamilton Library of the University of Hawai'i, the Hawai'i State Archives, the Mission Houses Museum Library, the Hawai'i Public Library, and the Bishop Museum Archives; study of historic photographs at the Hawai'i State Archives and the Bishop Museum Archives; and study of historic maps at the Survey Office of the Department of Land and Natural Resources. Historic maps and photographs from the CSH library were also consulted. In addition, Māhele records were examined from the Waihona 'Aina database (Waihona 'Aina 2000).

This research provided the environmental, cultural, historic, and archaeological background for the project area. The sources studied were used to formulate a predictive model regarding the expected types and locations of cultural resources in the project area.

## 2.5 Consultation Methods

Consultation included a meeting at the Sand Island Beach Park, across the dredged sea plane runway channel from the current houses on Mokauea Island, on 30 December 2014 between Kēhaulani Kupihea, Joni Bagood, and Richard Stark to discuss local traditionally named places, traditional uses of the Mokauea Fishery, the history of Mokauea Island, including the sea plane runway dredging, and the evictions of residents of the Mokauea Fishery, as well as ongoing educational programs on Mokauea Island. Kēhaulani Kupihea shared a power point she has used as an introduction to educational programs on Mokauea Island and generously offered to share images she has collected and created for educational programs through the Mokauea Fishermen's Association. Joni Bagood, a resident of Mokauea Island since 1979, discussed struggles with self-determination in living on Mokauea Island and concerns regarding the ongoing Mokauea Island lease with the DLNR that expires in 2043. Kēhaulani Kupihea and Joni Bagood collectively expressed a desire to have the living community enhance its use of the Mokauea Fishpond and to have the fishpond listed on the Hawai'i State Register of Historic Places.

## Section 3 Background Research

### 3.1 Traditional and Historical Background

#### 3.1.1 Traditional Place Names

Place names, *wahi pana* or "legendary places" (Pukui and Elbert 1986:376) are an integral part of Hawaiian culture. Traditionally named places are found in *mo'olelo*, or traditional Hawaiian stories, *mele* (songs), and *pule* (prayers) and concern the actions of gods or demi-gods. The *wahi pana* were then passed on through language and the oral tradition, thus preserving the unique significance of the place.

Through time, Hawaiians have named all sorts of objects and places, points of interest which may have gone unnoticed by persons of other cultural backgrounds. Hawaiians named *iaro* patches, rocks, and trees that represented deities and ancestors, sites of houses and *heiau* (places of worship), canoe landings, fishing stations in the sea, resting places in the forests, and the tiniest spots where miraculous or interesting events are believed to have taken place. *Place Names of Hawaii* (Pukui et al. 1974) is used here as the primary source for all place name translations. In some cases, where there were no known translations, a literal translation of the place name was made using the *Hawaiian Dictionary* (Pukui and Elbert 1986) or from another source. The intent here is to present the available information and let readers come to their own conclusions.

Place names (*inoa āina*) offer insights into traditional patterns of land use. As a sweeping generalization, with notable exceptions, there is a relationship between the frequency of traditional place names, the intensity of land use, and the richness of the cultural landscape. More intensively utilized landscapes typically have more place names than less utilized landscapes. This discussion includes place names from historical maps, referenced during consultation (see Section 7) and from recorded traditions. Note these place names may or may not constitute Traditional Cultural Properties (TCP), as described in National Register Bulletin 38, nonetheless they provide cultural context for the results of this archaeological investigation.

Honolulu, immediately *mauka* of the project area, was traditionally known as Kou and had a long tradition as a royal center where the *ali'i* (chiefly class) would meet and entertain. It was "noted for *kōhane* (pebble game, like checkers) and for *ulu maika* (bowling), and was said to be named for the executive officer (*lālamika*) of Chief Kākūhihewa of O'ahu" (Pukui et al. 1974:117). In accounts of the Pele and Hi'iaka saga (Emerson 1915:168), Hi'iaka from Hawai'i Island and Lohi'au, chief of Kaua'i, joined with Pele'ula, chiefess of O'ahu, for pleasure at Kou.

The entire *makai* area, surrounding what is today referred to as Sand Island—including Mokauea Fishery, Kahaka'aulana Island, and the project area—is traditionally referred to as Ke'ehi Lagoon, with specific designations for fishponds (*loko i'a*) and islands (Figure 8). At one time there were up to 41 fishponds (*loko i'a*) at Ke'ehi Lagoon. As described in Section 1.3.1, Natural Environment, the biome defined as "submerged coral reefs, mudflats and islands of varying sizes, shapes and elevations" (CSX World Terminals Consulting 2001:5) was originally referred to as Ke'ehi Lagoon. Ke'ehi, meaning to walk upon, was a practical term as the Ke'ehi Lagoon was entirely walkable depending upon the tides.

Kalihi, meaning the edge, could refer to the edge of the walkable reef or it could refer to the edge of the oceanic world to be navigated or even the edge of the cosmos, as this specific area is mythically central to Hawaiian cosmology (see Section 3.1.2, Mythological and Traditional Accounts). Perhaps as a double meaning term, Kalihi refers to both a practical description and a cosmically liminal concept, referring to both the edge of the walkable reef as well as a reference to a component of a navigational gourd to utilize guiding stars to navigate the ocean. In the use of the navigational gourd, specific navigational stars are represented by the *pu'u* (knots) around the edge of the *ipu hookele waa* (navigation gourd). Further, the cordage network of the *ipu hookele waa* are held together by a reddish cord referred to as an *'alili*:

[The] name *'Iwa* was also given to the nine principal guiding stars called the *Makā-*  
*'iwa*, Nine Eyes. . . . Each of these was represented by one of the *pu'u mana* [double  
hitched knots] around the edge (*'alili*) of the net and gourd rim. The *'alili* was a  
reddish *olona* cord put thru the meshes at 1/2 to one inch below the rim to hold the  
network on as the sides sloped inward. [Theodore Kelsey's "Navigation Gourd  
Notes" according to the testimony of David Malo Kupihea in Johnson and  
Mahelona 1975, See Appendix A]

*'Alili* is also a Hawaiian term for the horizon. This may be an oblique and yet significant reference to Kalihi and the method used to calibrate the navigational gourd, noting the position of guiding stars at the horizon: "All you have to do, sight horizon, but first look at North Star for position. (Add) Water first then sight North Star for position at horizon. Then sight star in east at same time" (David Malo Kupihea in Johnson and Mahelona 1975:142-146).

The project area is adjacent to the active Mokauea Fishery, within the Mokauea *'i'i* (land subdivision of an *alupua'a*), which is within Kalihi Ahupua'a in the O'ahu district of Kona. The Mokauea Fishery is one of seven traditional fisheries in the vicinity of the project area. *Loko i'a* (fishponds) immediately north of the Mokauea Fishery included, from east to west, Ananoho, Auiki, Puhouiki, Pāhou, and Apili (see Figure 8). Traditionally there were *konohiki*, assigned caretakers for each fishery, and David Malokupieha (Figure 9), the *konohiki* assigned by King Kalākaua to the Mokauea Fishery, was the last royal fishpond keeper of Ke'ehi Lagoon at Kalihi.

In *Place Names of Hawaii*, Kahaka'aulana is listed as the old name for Sand Island (Pukui et al. 1974:62), although Malokupieha indicates, in his account to Theodore Kelsey, that Kahaka'aulana Island was "once the beach residence of King Kamehameha III" (Johnson and Mahelona 1975:73). Kahaka'aulana Island and Mokuo'e'o (Damon) Island are small islands immediately to the west of Mokauea Island within the Mokauea Fishery.

Kahaka'aulana Island, meaning "the floating swimmers pass by" (Pukui et al. 1974:62) or "the floating oracle," is an important small island indicated as the place where the astronomers lived (Kēhaulani Kupihea, personal communication 30 December 2014) and where the *ipu hookele waa* (navigation gourd; described further in Section 3.1.3, Traditional Knowledge and Practice and in Appendix A) were made, kept, and taught (Johnson and Mahelona 1975:142-146). As an alternative Pukui, Elbert, and Mookini (1974) suggest Kahaka'aulana refers to the fishermen's containers that float by as fishermen fished for crabs and seaweed (Pukui et al. 1974:62). Kahaka'aulana was also noted as a place in Kalihi harbor that was used as a passage for travelers going from Kou (Honolulu) to Pu'uoloa (Pearl Harbor). As a literal translation, Kahaka'aulana Island could refer to "the floating swimmers pass by"; perhaps this refers to the travelers who

Archaeological Assessment for the SOEST Facility at Sand Island and Floating Dock at the METC, Honolulu, O'ahu

16

TMKS: [1] 1-5-041:334 por. and 006 por.



Figure 8. Overlay map indicating where the original fishponds would be today (courtesy of Jason Jeremiah 2015)

Archaeological Assessment for the SOEST Facility at Sand Island and Floating Dock at the METC, Honolulu, O'ahu

15

TMKS: [1] 1-5-041:334 por. and 006 por.



Figure 9. David Malo Kupihea, King Kalākaua's royal fishpond keeper, Ke'ehi Lagoon at Kalihī, photo by Theodore Kelsey (Hawaiian Historical Society)

would make their way to or from Pu'uloa by swimming through the channels of Moanalua, Kalihī, and Kapālama instead of walking or perhaps even a reference to the floating stars found within a *ipu hookele waa*, navigational gourd: "Kahakaalana: The narrow place in the Kalihī harbor inlet, and formerly the place where travelers used to swim across to Kalaekao or Puuloa to avoid the long detour by way of Moanalua" (Sterling and Summers 1978:322).

The place name Kapālama, the traditional fishery immediately north of the Mokauea Fishery, referred to an enclosure (*pā*) of lama wood that surrounded the place of residence of high ranking *ali'i* (Pukui et al. 1974:87). McAllister (1933:88) indicates that "Kapālama was said to have obtained its name from an establishment in which the young *ali'i* were kept just before pairing off for offspring." Westervelt (1923:165) attributes the place name to a chiefess of O'ahu (Kapālama) who lived in that area.

McAllister (1933) describes the fishponds in the vicinity of the project area:

Ananoho Fishpond (Site 73). An oval-shaped pond 52 acres in area. The walls approximate 4700 feet in length, and average 6 feet in width. They are primarily of coral and average 3 feet in height. There are now two houses on the wall (modern).

Auiki is a small adjoining pond partly filled. It is 12 acres in area with a 900-foot wall.

Pahouki, Pahouui, and Apili (meaning 'caught, snared, or stuck') Fishpond . . . Three adjoining fishponds off Kalihī.

Site 74, Pahouiki is the smallest, being 14 acres in area with a wall 1050 feet in length. The wall is of coral, with one house . . . It is open to Pahouui, a pond of 26 acres with a wall 2600 feet long. The walls are also of coral with one house . . . It adjoins but does not open to Apili pond, which is 28 acres in extent, with a wall 1500 feet long. [McAllister 1933:88]

Weli Fishpond, also in Kalihī Kai, was approximately 30 acres and was constructed of mostly earth embankments (Sterling and Summers 1978:322). One of the meanings of *weli* is "phosphorescent light on water, believed caused by a ghost that was interfering with fishing" and suggests a phenomenon unique to that fishpond. Sterling and Summers (1978) also refer to Papa-nui-aimoku, a sacred stone, and Keana Kamano, a sacred cave in Kalihī.

A paleo-environmental study of these fishponds was conducted in 2002 (Athens and Ward 2002). Based on the pollen and radiocarbon analysis, tentative chronologies suggest Weli, Ananoho and Auiki Fishponds were probably constructed sometime between the sixteenth and seventeenth centuries (Athens and Ward 2002:43).

### 3.1.2 Mythological Accounts: *Mo'ālelo*

*Mo'ālelo* (Hawaiian stories), *mele* (songs), and *pule* (prayers) establish and reinforce localized knowledge and traditional ways of knowing. Relevant traditional and legendary accounts are presented below, with emphasis on accounts surrounding the project area.

Kalihī, and what is now the Mokauea Fishery, was first the earthly residence of Papa, in her human form of Haumea, "where she marries her children and grandchildren, begetting the Hawaiian race. Kateie Heiau in Kalihī was built for her worship" (Landrum and Klieger 1991:10). Haumea



is the mother of Pele whose sister Kapo made Kalihī her home and thus famous in legend (Pukui et al. 1974). Haumea is known for her regeneration abilities, whether this is manifested as food for the people or the powers of female reproduction to secure the existence of humankind (Beckwith 1970).

Ka-puka- Wai-o-Kalihī, the water door of Kalihī, and the epic journey of the gods Kane and Kanaloa, which takes them to Kalihī, is described by Westervelt:

Kane and Kanaloa journeyed along the coast of the island Oahu until they came to Kalihī. For a long time they had been looking up the hillsides and along the water courses for *awa*. At Kalihī a number of fine *awa* roots were growing. They pulled up the roots and prepared them for chewing. When the *awa* was ready Kanaloa looked for fresh water, but could not find any. So he said to Kane, "Our *awa* is good, but there is no water in this place. Where can we find water for this *awa*?" Kane said, "There is indeed water here." He had a 'large and strong staff.' This he took in his hands and stepped out on the bed of lava which now underlies the soil of the region. He began to strike the earth. Deep went the point of his staff into the rock, smashing and splintering it and breaking open a hole out of which water leaped for them to mix with their prepared *awa*. This pool of fresh water has been known since the days of old as Kapukawaio Kalihī. [Westervelt 1915:35]

Most of the recorded myths are situated in the *mauka* areas of Kalihī and there is very little documented information for the *makāli* areas. This is quite surprising considering the abundance of fishponds and extensive fisheries in the area. One story was found relating to the waters of Kalihī Basin. A shark guardian of Moanalua, Makali'i is known to frequent the waters of Kalihī Kai, particularly near Kahaka'aulana, the smaller island to the west of Mokauea and Sand Island (Napoka 1976:15). It was at Kahaka'aulana that Makali'i had his cave. Native Hawaiians (*kanaka maoli*) who inhabited Mokauea in the 1970s have noted during the time of Makali'i's residence in his cave at Kahaka'aulana, that the sand patterns change above his cave and also that the *akule* (google-eyed scad, *Trachurus crumenophthalmus*) fishing is good (Napoka 1976:15).

### 3.1.3 Traditional Knowledge and Practice

Several fishing techniques have been documented during interviews with residents of Mokauea Fishery (Hammatt and Shideler 2007; Napoka 1976). Some of the most common and popular fish in Mokauea are the *paki'i*, the flounder (*Bothus pantherinus*), squid, and mullet (Napoka 1976:13). The *paki'i* is found in sandy places and was caught by sticking it with a piece of metal wire. Squid was caught directly from the boat where a spear was used with a wire-ended barb (Napoka 1976:13). Probably the most important fish, the mullet, is known to come in great numbers to these shores. One interviewee, Muriel Lupenui, speaks of the legendary '*anae holo*, the traveling mullet that made their runs from Pu'uloa all the way around to Ko'olauloa and back during the winter (Napoka 1976:13; Thrum 1998:271). Though many of the fishponds were also stocked with mullet, it was noted that Mapunapuna was the primary one. Fishermen at Mokauea and in surrounding areas used nets to trap mullet and many other fish. Fishermen interviewed all spoke of the importance of fish breeding grounds, the *ko'a*. Every fisherman was familiar and respectful of the *ko'a*, not taking more fish than was needed. Because *ko'a* were often difficult to locate, a system of triangulation was used to obtain bearings off visible landmarks. Where the two bearings intersected identified the location of the *ko'a* (Malo 1951:211). *Kū'ūla* were also emphasized during interviews with

Mokauea fishermen. A *kū'ūla* is "any stone god used to attract fish, whether tiny or enormous, carved or natural, named for the god of fishermen" (Pukui and Elbert 1986:187). *Kū'ūla* offerings were observed on Mokauea Island by one of the interviewed fishermen in his youth. On the neighboring island of Kahaka'aulana was the *kū'ūla* stone of Muriel Lupenui's '*ohana*, kept in a special house. This house was visited and described by Gertrude Damon and appears in her notebooks. The *kū'ūla* practice existed up until the confiscation of the area in 1941 (Napoka 1976:14).

The waters of Kalihī Kai were traditionally noted for their calmness. Mary Kawena Puku'i recorded one '*ōlelo no'eau* or Hawaiian proverb for the ocean off Pu'uhale, "*Ke kai nēhe o Pu'uhale*," "the murmuring sea of Pu'uhale" (Puku'i 1983:186). At Ke'ehi, the fishponds were famous for their '*anae* or mullet. Two '*ōlelo no'eau* refer to methods used to drive the large schools of mullet into nets. Creating noise by talking or shouting was one method, "*Ka i'a leo nūi o Ke'ehi*," "Loud-voiced fish of Ke'ehi" (Puku'i 1983:185). Another method was slapping the water with hands or *lau*, leaves or vines to scare fish into the awaiting nets, "*Ke kai kā 'anae o Ke'ehi*," "the mullet-driving sea of Ke'ehi" (Puku'i 1983:148).

In the legend of the traveling mullet (*'anae holo*), Ihuopalaai of Pu'uloa furnishes his sister, living in Lā'ie at the time, with '*anae* via his fish god, Kū'ūla. This variety of '*anae* is said to make its run from October through March along the following route beginning at Pu'uloa: "Kumumunu, Kalihī, Kou, Kalia, Wāikiki, Kaaławai and so on around to the Koolau side, ending at Lāie, and then returning by the same course to their starting point" (Thrum 1998:271). There is no doubt that the fishing grounds at Kalihī Kai were rich in '*anae*.

Fish were, and continue to be, plentiful in this area. There were approximately 885 acres of fishponds in the Ke'ehi area alone (Cobb 1905:429). Many fishing communities existed at the beginning of the twentieth century, some on the small islands on either side of Kalihī Channel and others near the shoreline. *Hoa āina* (tenant, caretaker) shared details about the way fishing worked within an '*ohana*:

The fisherman of Ke'ehi would usually fish with their '*ohana* group. When fish were brought back to the island it would be shared with one's '*ohana* first then with neighbors and finally the remaining fish were either sold or bartered. No one would go hungry because everyone watched out for their neighbor's welfare. [Napoka 1976:11]

Most of the families traditionally owned homes on land or in the *mauka* areas of Kalihī as well while maintaining a fishing house on one of the islands. Anyone from the '*ohana* could go use the fishing house as this was where the fishing gear was kept. This settlement pattern is consistent with *kuleana* claims in Kalihī Kai, including the ones closest to the project area. Today, families continue to live and fish for subsistence in and around Ke'ehi Lagoon and Mokauea Island.

The earliest written record of fishing and gathering on the Ke'ehi reef is described in 1825 during a survey made by British naval officer Charles Robert Malden. The reef is described as being dry in portions at low tide, particularly the seaward portions (Malden in Renard 1975:A2). The reef here provided food for all the native tenants living in the surrounding areas. "The low orders of the natives get from it a considerable part of their daily subsistence, consisting of small fish, left in ponds, crabs, shell fish, etc." (Malden in Renard 1975:A2).

There is some evidence that the people of Kalihi Kai were also producing salt (Sterling and Summers 1978:327). Salt pans can be identified on an 1870 Monsarrat map, adjacent to Loko Apili, (Landrum and Klieger 1991:18).

The interior portion of the Ke'chi reef was always submerged and during high tides was used as a passage for canoes between Honolulu and different areas of Pu'uloa. Others without canoes would swim to avoid the walking detour around Moanalua (Sterling and Summers 1978:322). A traditional canoe from the Mokauea Fishery, observed by Dr. Kenneth Emory of the Bishop Museum and Herb Kane in 1975 (Figure 10, Figure 11) is described as follows:

... in an unfinished state of constructions. It is 22-feet long, 22 inches wide and 22 inches deep. It was carved from a single *koa* log in the old Hawaiian style of canoe making. The gunwales, interior, and exterior clearly show tool marks of old Hawaiian adzes... The canoe shows no saw tooth marks anywhere... The *pepeiao* (seat supports) are carved as a part of the solid *koa* hull... The canoe has a 'V' bottom indicating that it was designed for sailing... Kane said this type of canoe was used as a near shore fishing canoe, suitable for expeditions of a few days. [Kai Makana 2015]

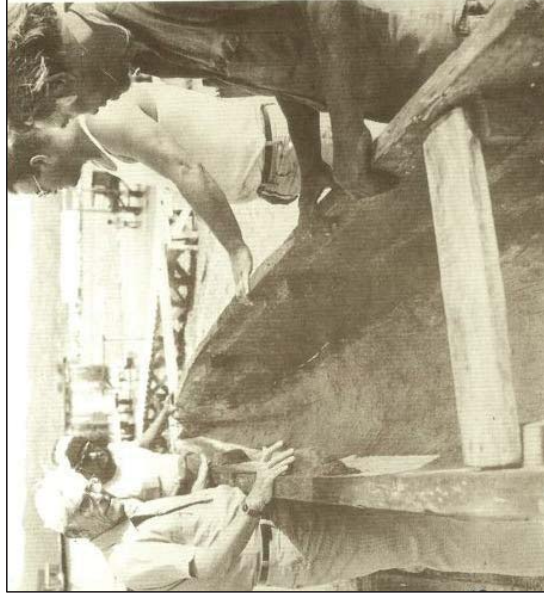


Figure 10. Dr. Kenneth Emory of the Bishop Museum, Herb Kane, expert in Pacific canoes; and Wallace Froiseth, well known canoe restorer and founder of the Waikiki Canoe Club examine a traditional canoe on Mokauea Island in 1975 (Napoka 1976:photograph 17)



Figure 11. Traditional canoe from Mokauea Island (Kai Makana 2015)

As indicated by Napoka, canoe transportation was a necessity for residents of Mokauea Island:

Canoes were the primary means of transportation prior to WWII. Children would go to school in small 10-foot *koa* canoes and water would be gotten in larger canoes. Sometimes they measured 20 feet or more. Since there was no water on the islands nearby Puuhale was the source for hand carried water. This is still the practice today. Prior to the advent of motors, people either paddled, sailed or poled. Since most of the area was shallow, poling was the most common. [Napoka 1976:16]

In a *Honolulu Advertiser* article, Robert Rothwell states that his father, Guy Rothwell, traveled to Mokauea Island in 1907 to visit a canoe maker, "This old man was an authority on outrigger sailing canoes. There were many fishing families there at the time and his impressions were that their ancestors had lived there form many generations." (Napoka 1976:6).

The Mokauea Fishery, and particularly Kahaka'aulana Island, is also traditionally associated with *kilo hōkū* (navigator astronomers) making and teaching the use of navigational gourd, also referred to as a calabash compass or *ipuho'okelewa'a* (Figure 12). Samuel Kamakau gives instructions regarding the use of the navigational compass: "Take the lower part of a gourd or *hula* (*hokeo*), rounded wheel, on which several lines are to be marked (burned in) . . . these lines are called '*Na alanui o na hoku hookele*' (the highways of the navigation stars)" (Kamakau 1865).

Other Polynesian traditions refer to the use of this traditional navigation device, such as in this chant from the Tuamotus:

Oh my calabash! Blown toward me by the wind, My calabash rolls over and over on the toppling waves. It is my diviner, giver of the wisdom of the stars.

Oh my calabash! Old memories of my beloved homeland crowd into my heart.

Oh my calabash! Bringing me a brother's life-saving love My calabash turns over and over on the crested waves. It is the first of my possessions to be borne hither to my side, Drifting into my welcoming hands.

Oh, my sacred calabash—Revealing the sacred wisdom of the stars! [Stimson 1957: 75 in Johnson and Mahelona 1975:74]

The remarks of David Malo Kupihea regarding navigational gourds made, kept, taught, and used by traditional astronomer navigators once living within the Mokauea Fishery may be found in Appendix A: *Ipu hookele waa*: Navigation Gourd Notes. In brief,

[T]he gourd was partly filled with water to catch the reflection of the stars. There were two sight holes. One was aligned with Polaris so that the reflections of other guiding stars (morning, even stars, Dipper) would then be in correct position. At intervals of 45° were double hitches called *pu'u mana* at the rim of the gourd. Across the top of the gourd a net was placed and secured; each square or mesh, called *maka*, 'eye', was named. The stars were tracked across the net in their courses. In other gourds there were four holes bored at the rim . . . two aligned on the north south axis and two on the east-west axis. The star in the east was called the *Hōkai-iwa*, Frigate Bird. This name 'Iwa was also given to the nine principal guiding stars called the *Maka-iwa*, Nine Eyes. Each of these was represented by one of the *pu'u mana* knots around the edge ('*aliti*) of the net and gourd rim. The '*aliti* was a reddish *olonā* cord put thru the meshes at 1/2 to one inch below the rim to hold the network on as the sides sloped inward. The number of meshes were from 24 to 36 squares. [Kelsey, according to the testimony of David Malo Kupihea in Johnson and Mahelona 1975:73-74; see Appendix for details of design and use]

### 3.1.4 1800s

Early explorers were impressed with the extensive networks of fishpond and ponded fields for taro present in southeast O'ahu in the early 1800s. Baron Otto von Kotzebue, an explorer who traversed between Nu'uauu and Moanalua remarks on how beautiful the scene was:

I have seen whole mountains covered with such fields, through which the water gradually flowed; each sluice formed a small cascade, which ran through avenues of sugarcane, or banana, into the next pond, and afforded an extremely picturesque prospect. [Landrum and Klieger 1991: 13]

The first harbor facilities were developed on the shores of Honolulu in 1825 when the hulk of an old ship was sunk to create a small wharf (Alexander 1908). This wharf served the growing sandalwood trade and the subsequent whaling industry. Concurrently, in the 1830s the Kāhili area was declared by Kamehameha III as royal fishponds under the protection of the kingdom (Napoka 1976:5) "Later, King Kalākaua had a house on Mokuoe'o Island and named the *ihuu* (edible sea weeds) gardens there "Kauma'e," after his grandmother" (Mana 2015). Land

Figure 12. *Ipuho 'okelewa'a*, replica created by Kupihea (photo courtesy of Kēhaulani Kupihea)

surrounding the fishpond in Kailihi once belonging to the Adams' family was established as a resort in 1850. It was there that Captain Alexander Adams had built extensive gardens and the fishpond became noted for the flavor of its fish, particularly the *awa* (milkfish) (Sterling and Summers, 1978:323). Through the 1850s, the commercial development of Honolulu and its harbor facilities appears to have been concentrated above the southeast side of Nu'uano Stream, far removed from Kailihi Kai.

Reference to the quarantine function of Kahaka'aulana Island within the Mokauea Fishery is found during the smallpox epidemic of 1853:

The sick man was brought to Honolulu, but there was no place to bring him. He was lodged at last in a grass house on a reef island surrounded by water at high tide—quarters offered by Prince Kamehameha. This islet was called Kahaka'aulana. [Greer 1969:39; Napoka 1976:6]

In 1856, the outskirts of town in Iwilei became the site of a new prison along with a new road connecting it to what is now King Street. In his history of Hawaii<sup>1</sup>, written in the 1860s, John Papa <sup>1</sup> describes the trail from Nu'uano to Moanalua:

When the trail reached a certain bridge, it began going along the banks of taro patches, up to the other side of Kapalama, to the plain of Kaiwiula on to the taro patches, up to the other side of Kapalama, to the plain of Kaiwiula; on into Kahauiki; and up to the other side; turned right to the houses of the Portuguese people. [1<sup>1</sup> 1959:95]

In 1872 the small island off Iwilei—"Ka-moku-<sup>2</sup>akulikuli"—became the site of a quarantine station to handle the influx of immigrant laborers drawn to the Islands' developing sugar plantations. The site is described as "little more than a raised platform of sand and pilings to house the station, with walkways leading to the harbor edge wharf, where a concrete sea wall had been constructed" (Beechert 1991:105) and as "a low, swampy area on a reef in the harbor" (Van Hofen 1970:3). By 1888, Kamoku<sup>3</sup>akulikuli Island had been expanded and was known as "Quarantine Island." A pier and tramway had been built connecting the island to Honolulu harbor (Renard 1975:A4). If vessels arrived at the harbor after 15 days at sea and contagious disease was aboard, quarantine and disinfecting procedures were required at Quarantine Island (Renard 1975:A3).

Following the initiation of Dillingham's Oahu Railway and Land Company (OR&L), a railroad track was built across Kūwili Fishpond in 1889. This and the construction of associated infrastructure such as a depot, buildings, store houses, and stations eventually led to the expansion of Honolulu Harbor toward Kapālama Basin and Iwilei. John Hungerford writes of OR&L's influence on the harbor:

Honolulu in the years to follow was outgrowing its small harbor where, according to an entry on company records, on a single day in 1901 were 24 deep water sailing vessels, six of them unloading coal and four loading sugar at railroad wharves. The company had led the way, in conjunction with other private interests, in creating some 500 acres of waterfront land. [Hungerford 1963:14]

The increasing prominence of the harbor and its activities over the traditional use of the fishponds and adjoining *kalo* patches becomes apparent at the turn of the century. Between 1895 and 1901, Kūwili Pond was filled and an estimated 6,000,000 cubic yards of mud, sand, and loose

coral as well as blasted hard coral was used to fill low land near the harbor and terminal (McGerty et al. 1997:20).

### 3.1.5 The Māhele and the Kuleana Act

Records of the Land Commission Awards (LCA) associated with the Kuleana Act of 1850 allow us to reconstruct something of the land use pattern in Kailihi at that time (Appendix B). Undoubtedly residential patterns had changed from pre-Contact times as a result of massive depopulation owing to introduced diseases on the one hand and in-migration into greater Honolulu from out-lying areas on the other hand. The pattern of land holdings ca. 1850 suggests the majority of Hawaiians in the *āhupua'a* were living relatively close to Kailihi Stream, inland of present day Dillingham Boulevard and seaward of the confluence of Kailihi and Kamaeaiki streams.

Numerous taro pond fields or *lo'i* were claimed during the Māhele, particularly along Kailihi and Niūhelewai streams, which served as the eastern and western boundaries of Kailihi. However, on the flat of Kailiapuhi where Kailihi Kai meets the ocean, there is no indication of taro *lo'i* or fresh water sources. Figure 13, an 1886 map of Kailihi Reef showing Mokauea Island and the project area, indicates the reef area and islets immediately surrounding Mokauea were awarded to Pahene (LCA 10611). This is confirmed by Napoka (1976:5): "When Kamehameha III asked for land claims during the Māhele, Pūhene made a claim for Kahaka'aulana Island . . . the surveyor's sketch shows the existence of five major house sites."

Figure 14, the 1913 Monsarrat Map of Oahu Fisheries, indicates the area including reef and islets immediately south of the project area as the property of the Kapiolani Estate. At the time of the Māhele, the *makai* tip of Kailiapuhi land separated Loko Auiki from Loko Pahouiki. Land Commission Awards 3237, 1255, 7234, and 2038 are clustered in this area. Lands in Kailihi Kai were principally awarded to very notable people, including advisors to the Kamehameha line or to royalty themselves, most likely on account of the abundant fishponds in the locality. Queen Kalama was awarded a house lot in Pu'uhalae, Kailihi Kai (LCA 2038) adjacent to Loko Auiki. Kalama Kapakahaili, a descendant of the Moana family from Hawai'i Island, was married to Kauikeaouli, Kamehameha III (Kamakau 1961:341). As Dowager Queen, Kalama was awarded some of the richest lands in the kingdom, including Waikahalulu water rights, fronting Honolulu (Smith and Rosendahl 1990:14).

Another high ranking *ali'i*, Kaunūohua, received land in Kailihi during the Māhele (Wāhona 'Aina 2000). Kaunūohua was a female descendant of a high ranking *ali'i* of Hawai'i Island, Kalaninui'iāmao, father of Kalani'ōpu'u (Kame'elehiwa 1992:249). She was also Alexander Liholiho's (Kamehameha IV) guardian. Though she had many lands prior to the Māhele, most of these were lost with the exception of three, Pu'u'lema in Waikiki, Mokauea in Kailihi, and Kalaupapa on Moloka'i (Kame'elehiwa 1992:264). LCA 6450 to Kaunūohua names five *'i'i* in Kailihi being awarded to her including Kaluaopalema, Keatuhou, Mahani, Niau, and Mokauea (Barrière n.d.:286).

Hewahewa, a descendant from the *Paoa* priestly class who served three of the Kamehamehas, was awarded the *'i'i* of Kalaupulu in Kailihi which included fishponds at Kailihi Kai (Kamakau 1961; LCA 3237). A second *kahuna* (priest) of the same Hewahewa line, Nahinu, was also awarded lands in Kailihi, near the outlet of the Kailihi Stream (Bushnell and Hammett 2002: 6). Nahinu also served as *konohiki* for Kailihi Kai during the time of the Māhele (Landrum and Klieger 1991:22-23). Kamakau mentions the two *kahuna* as contemporaries skilled in diagnosis of illness:

<sup>1</sup>Archaeological Assessment for the SOEST Facility at Sand Island and Floating Dock at the METC, Honolulu, O'ahu



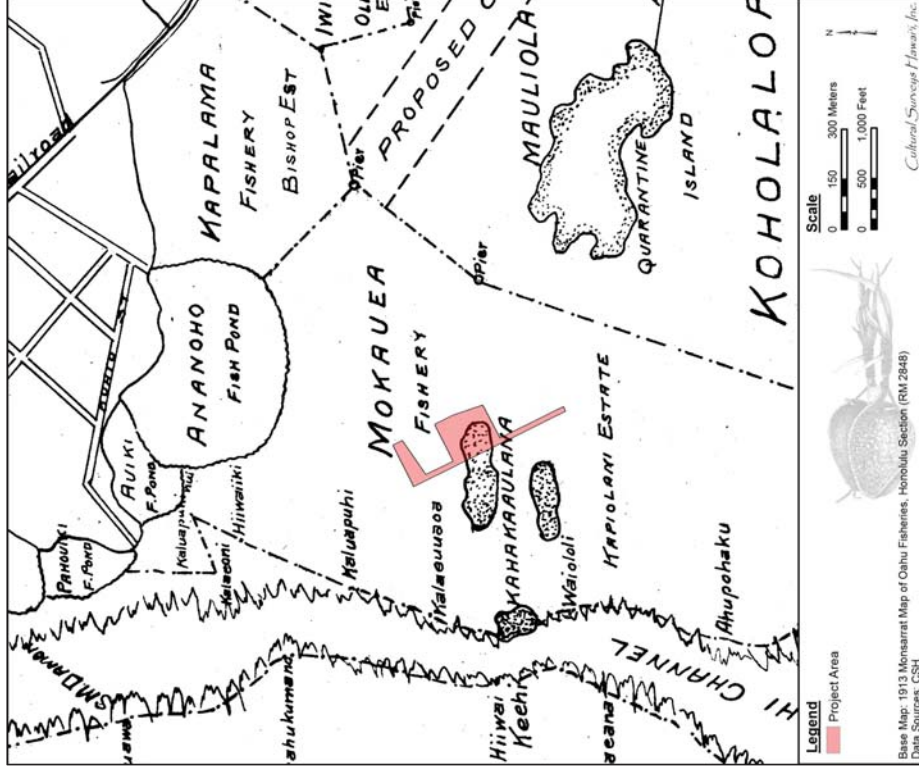


Figure 14. Portion of the 1913 Monsarrat map of O'ahu fisheries indicating the project area within a portion of the Mokauea Fishery

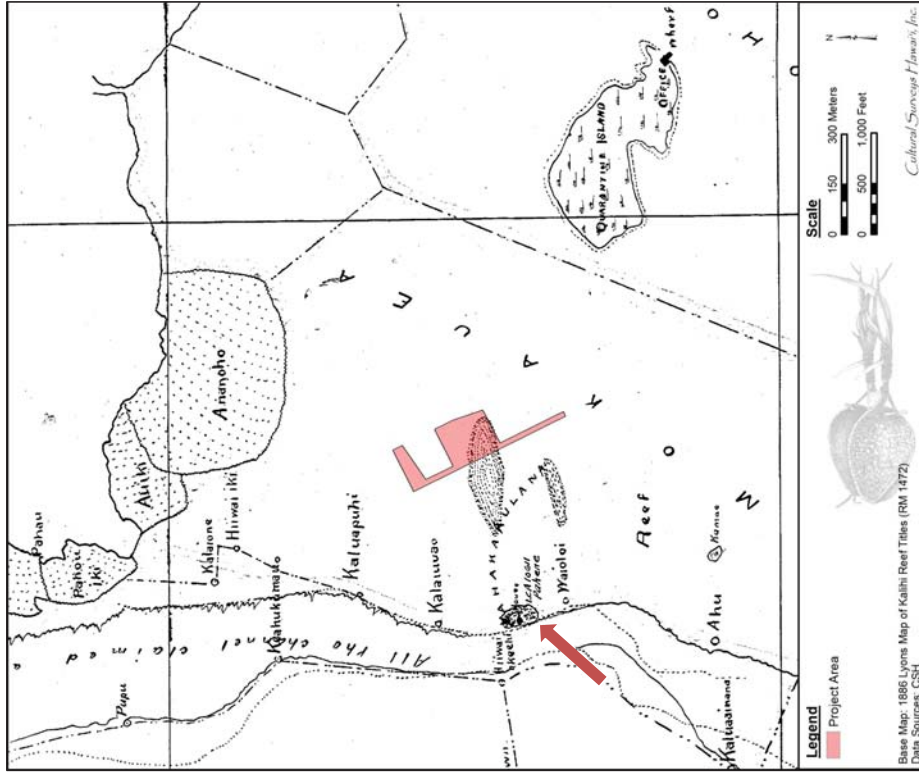


Figure 13. Portion of the 1886 Lyons map of Kahihi Reef Titles, indicating the eastern portion of Mokauea Island within the project area and LCA 10611 indicated by the red arrow

Boki returned and lived at his place at Beretania and devoted himself to medicine, in which he was proficient, and all those joined him who were skilled in placing pebbles [in diagnosis], such as Kaao, Kuauau, Kinopu, Kahiole, Nahinu, Kekaha, Hewahewa, and their followers and other kahunas besides. [Kamakau 1961:291]

Other noted landowners in Kalihi Kai area were John Papa ʻŪi and Mr. Adams. ʻŪi held the position of treasurer and spokesman to the Chiefs of the Hawaiian Kingdom during the 1840s (Kamakau 1961:398).

### 3.1.6 1900s

In the vicinity of the project area, very little of the land/waterescapes from before the early 1900s remains today (see Figure 13). In addition to the landscape changes, the socio-economic changes within and around the Mōkaea Fishery during the course of the historic period were significant, although the commitment to subsistence fishing remained. Jourdane and Dye summarize the scene prior to the 1900s:

Sand Island was created by the filling of the reef flats during incremental dredging of Honolulu harbor and Keʻehi lagoon. The village of Kou, inland of Sand Island, had a long history of settlement. Kou was an important hub in historic Hawaiʻi and later grew into the metropolis of Honolulu. Deep sea, inshore and fishpond resources were available to the villagers and the natural channel in the bay that fronts Kou provided an avenue of safe passage and convenient berthing for large foreign ships. With the start of foreign visitors and trade, the port of Honolulu became more important and by 1809 Kamehameha moved his court to Kou. [Jourdane and Dye 2006:3]

Dredging of the harbor and filling of fishponds continued into the twentieth century. Following annexation of the Hawaiian Islands in 1898 and the establishment of the Honolulu Engineer District in 1905, federally funded dredging of the harbor was initiated and completed in December 1908. By 1901, Auiki Fishpond had been partially filled (Athens and Ward 2002; Hammatt and Shideier 2007) (see Figure 14). It was at this time that reclamation projects created Sand Island, as a history of the Honolulu Engineer District notes.

As anticipated, enlarging the small island just seaward of the lighthouse calmed the entire harbor; indeed reclamation of this land, today known as Sand Island, has eliminated the need for a breakwater in Honolulu Harbor . . . A separate project to reclaim Quarantine Island, a low, swampy area on a reef in the harbor, was adopted in February 1906 and was carried out by contract until funds were exhausted in March 1908. Continued reclamation over the next four decades would result in the absorption of Quarantine Island into an enlarged Sand Island. [Van Hoften 1970:3]

The United States Fish Commission Report for 1903 (Cobb 1905:748) lists 12 fishponds located on the periphery of Keʻehi Lagoon that were in operation in 1901 with a total of 857 acres. The fishponds that were once nearest the project area were Loko Auiki and Loko Ananoho. The fishponds were being utilized prior to in-filling and toward the end of the nineteenth century their use became more commercial (Athens and Ward 2002). By 1901, Loko Auiki had been partially filled. This may have been the result of lack of maintenance or reflect patterns of infilling, as was beginning to occur at the nearby Kewalo Basin (Honolulu Harbor). Figure 15, a 1924 photograph



Figure 15. 1924 photograph of Honolulu Harbor; note Ananoho, Auiki, and Pahouiki fishponds in the background (Hawaii State Archives, Digital Collection)

Archaeological Assessment for the SOEST Facility at Sand Island and Floating Dock at the METC, Honolulu, Oʻahu  
TMKs: [1] 1-5-041:334 por. and 006 por.

of Honolulu Harbor, indicates Ananoho and Auiki fishponds are still at least partially intact, however, these were completely filled during World War II at which time an Army port and warehouse complex was built (Athens and Ward 2002:1) (Figure 16). Later, this became part of the Kapalama Military Reservation. Today, this area where the Plant Quarantine and Measurement Standards and Commodities (MS&C) buildings are situated is used by the Department of Agriculture. A *kama āina* born in Kalihi recalls fishponds in the vicinity of the former Apili Pond when he was a youngster in the 1930s. At that time, Apili Pond was split into several ponds and was operated by the Hamada Family who would harvest fish from tin boats (G. Kaeliawai, personal communication 16 July 2002 in Bushnell and Hammatt 2002:7).

During the land reclamation projects in the first two decades of the twentieth century, Sand Island and Quarantine Island were joined to the Kalihi Kai peninsula (Figure 17). In 1925 and 1926, a channel was dug from the Kalihi Channel into Kapālama Basin creating a true island out of "Sand Island" (Figure 18). Aerial images of Honolulu Harbor 1920-1930 indicate the dredged Kalihi, Kapālama Basin and sea plane runway channels as well as Kahaka'aulana Island and the remaining portion of Mokauea immediately west of the seaplane runway (see Figure 18, Figure 19). Quarantine Island became the largest United States quarantine station of the time period, accommodating 2,255 individuals (Renard 1975:A6). This space included two hospitals and a crenatorium. Besides operating as a quarantine, the station had other objectives such as implementing plague preventive measures, immigration inspection, and also as a marine hospital relief (Renard 1975:A9). During Wilson's administration in 1920, Sand Island was taken under the control of the War Department. Despite this, quarantine measures continued there until 1927.

By 1941, reclamation projects and dredging of the harbor had enlarged Sand Island to 410 acres (Renard 1975:A20) (Figure 20). Another 100+ acres were added to Sand Island between 1940 and 1945 from the spoils of Ke'ehi Lagoon's seaplane channel, located on the western seaward boundary of the project area (Figure 20). In Figure 16, a 1943 Honolulu Quadrangle U.S. Army Terrain map shows Kalihi Channel, Quarantine Island, and one house on the portion of Mokauea Island not severed by the seaplane runway channel dredging. The project area is to the east of the seaplane runway in Figure 16, and it is noted that by 1943, Ananoho and Auiki fishponds have been filled with sediment, correlating to the development of the military port and warehouse complex (Athens and Ward 2002:1). Later, this became part of the Kapalama Military Reservation and today this area is where the MS&C buildings are used by the Department of Agriculture.

A dirt causeway was constructed connecting Sand Island to the mainland in 1943 (Renard 1975:A29). Between 1946 and 1952, the Ke'ehi seaplane channels were used by Naval Air Squadrons for transporting "Mars" flying boats between Hawaii 'i and the continental U.S. Figure 21 is a 1952 aerial photograph indicating a bulldozed environment throughout the project area. Figure 22 indicates that in 1953 Mokauea Island has nine houses and Kahaka'aulana Island approximately five houses. Built in conjunction with the dredging of the Kapālama turning basin between 1959 and 1962, the Bascule Bridge was intended to be a drawbridge to allow harbor traffic entering Honolulu Harbor to leave by way of Kalihi Channel. The seaplane channel and the bridge connecting Sand Island to Kalihi Kai are also depicted. Figure 23 and Figure 24 indicate that by 1969-1978 the built environment at Sand Island, the project area, and Sand Island Parkway are essentially in their currently built situation.

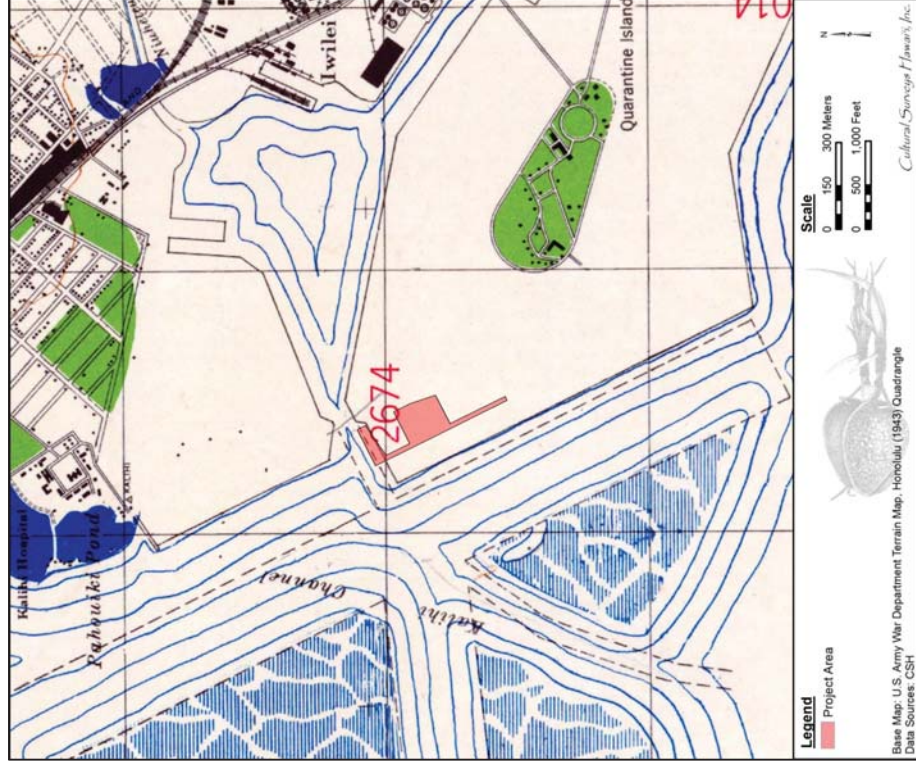


Figure 16. Portion of the 1943 U.S. Army War Department Terrain map, Honolulu Quadrangle, showing Kalihi Channel, Quarantine Island, one house on the portion of Mokauea Island not severed by the seaplane runway channel dredging and the project area to the east of the seaplane runway



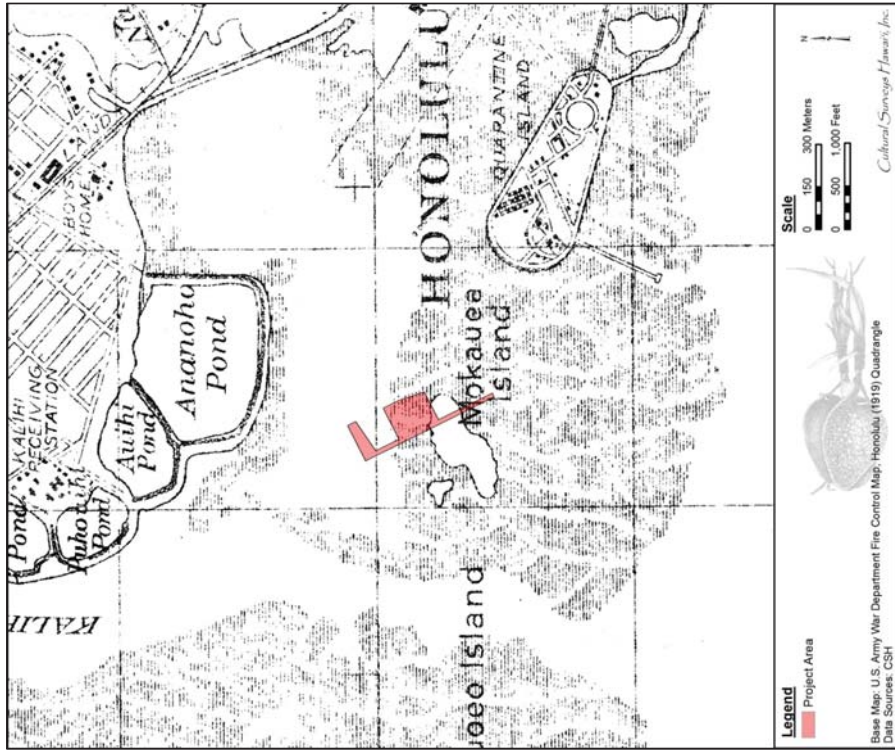


Figure 17. Portion of the 1919 U.S. Army War Department Fire Control Map, Honolulu Quadrangle, indicating fishponds, Quarantine Island, and a portion of the project area within a portion of Mokauea Island

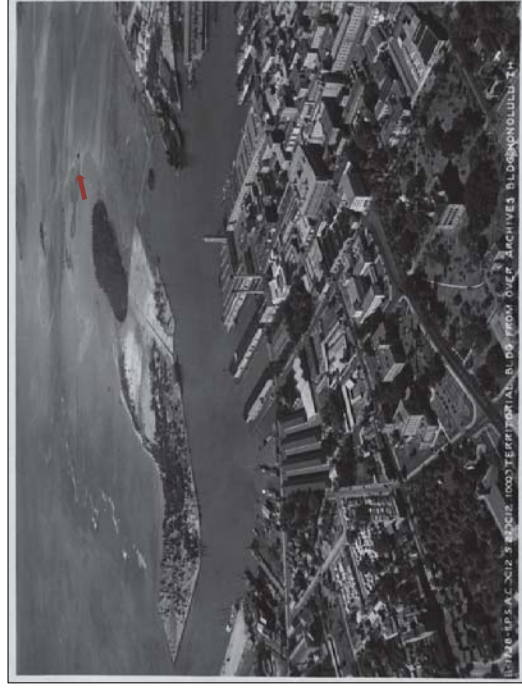


Figure 18. 1920-1930 photograph of Honolulu Harbor with a red arrow indicating the approximate location of the project area within the network of Mokauea Fishery tidal flats (Hawaii 1 State Archives, Digital Collection)



Figure 19. 1930 photograph of Honolulu Harbor (Hawaii; State Archives, Digital Collection)

Archaeological Assessment for the SOBEST Facility at Sand Island and Floating Dock at the METC, Honolulu, Oahu  
TMKS: [1]-5-041:334 per. and 006 per.

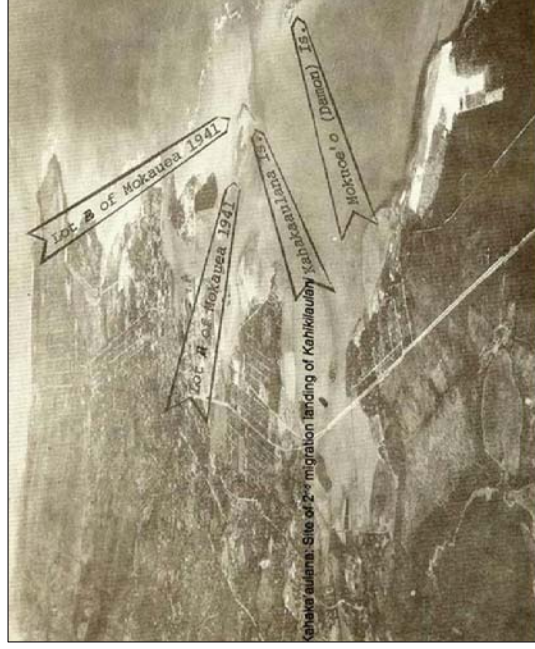


Figure 20. 1941 photograph of Honolulu and the Mokauea Fishery (Hawaii; State Archives, Digital Collection)

Archaeological Assessment for the SOBEST Facility at Sand Island and Floating Dock at the METC, Honolulu, Oahu  
TMKS: [1]-5-041:334 per. and 006 per.



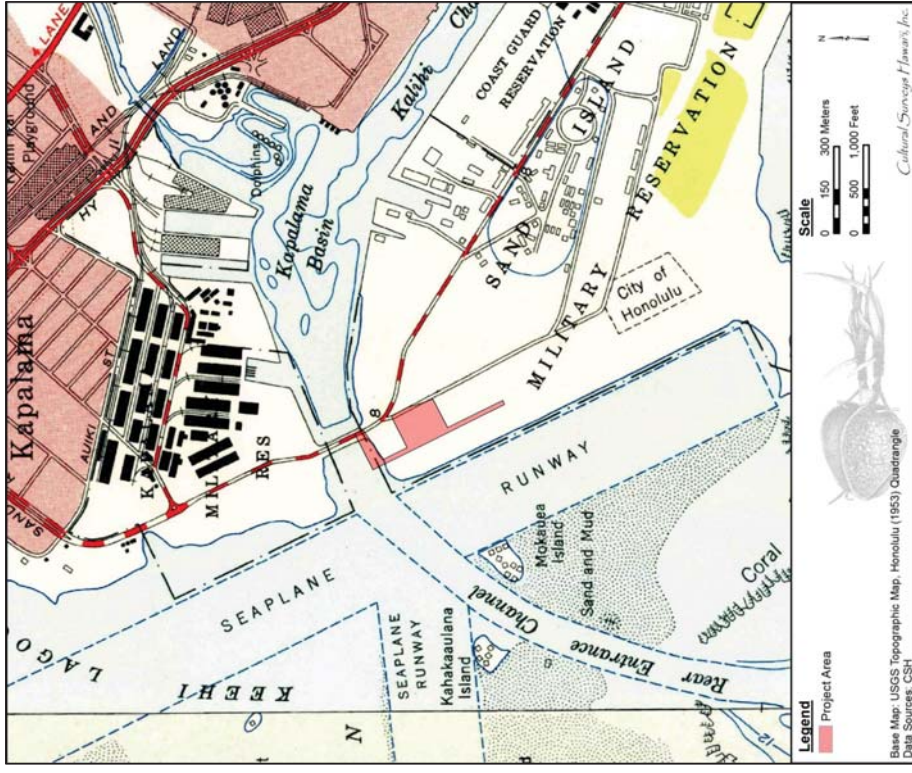


Figure 22. Portion of the 1953 Honolulu USGS topographic quadrangle showing Mokauea Island inhabited by approximately nine houses and severed on its eastern margin by the seaplane runway and the project area under the jurisdiction of the Sand Island Military Reservation

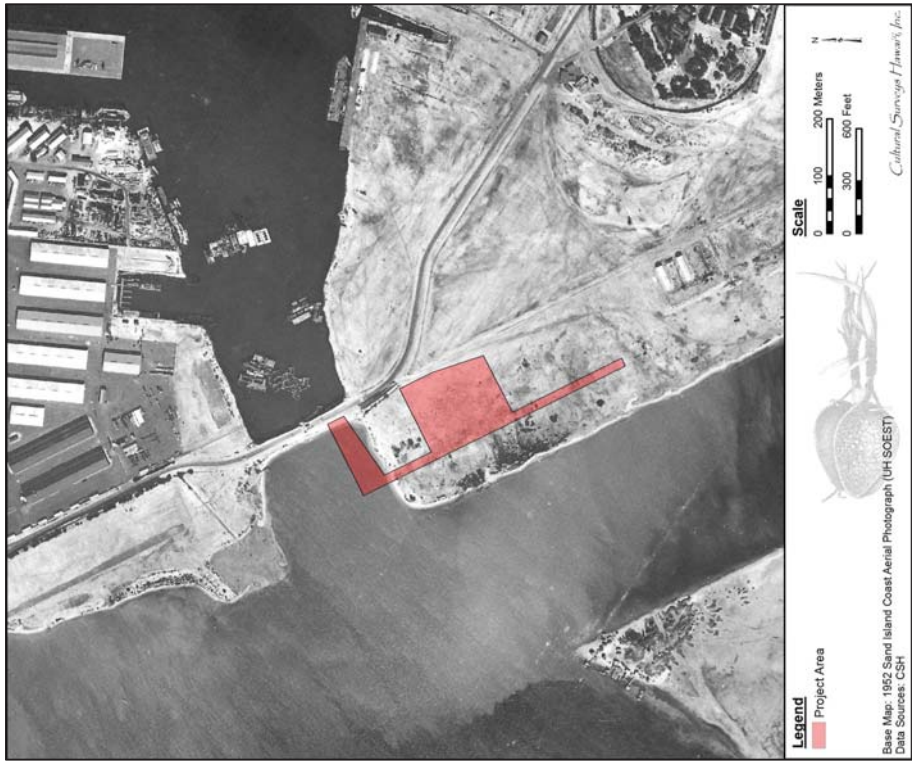


Figure 21. Portion of a 1952 Sand Island Coast aerial photograph indicating the project area on the east side of the dredged sea plane runway in Kalhi Channel and the remaining portion of Mokauea Island approximately 500 m west across the seaplane runway channel (UH SOEST)



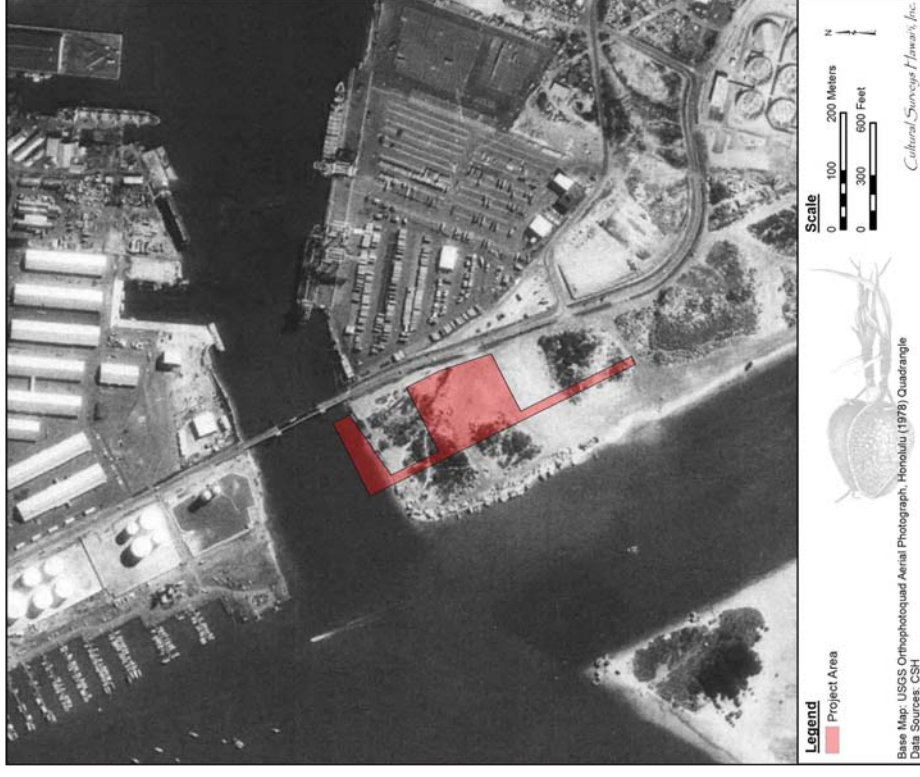


Figure 24. 1978 USGS aerial showing the project area on the east side of Kalihi Channel and contemporary Mokauea Island community immediately across the channel to the west

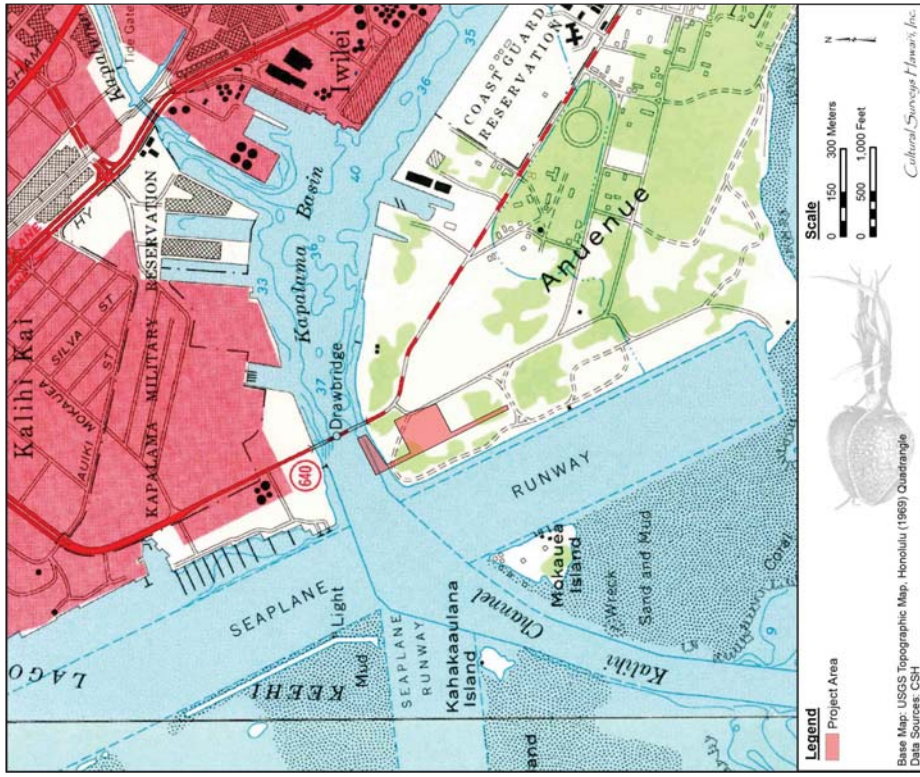


Figure 23. Portion of the 1969 Honolulu USGS topographic quadrangle indicating Kalihi Channel, Mokauea Island, and the project area

The cultural landscape of Ke'ehi was drastically altered after the bombing of Pearl Harbor . . . Under martial law, the Territory of Hawaii'i took control of the area and started dredging the lagoon to create landing channels for seaplanes. As a result, many of the *kāpuna* [elders] who resided or frequented the area were displaced. Once the reef system was disconnected, they couldn't walk back home anymore during low tide. They couldn't go unless they had a canoe or boat, and that is when things really changed. [Kāhualani Kupihea in Mana 2015]

For residents living and subsisting within the Mokauea Fishery at this time, while navigating the lived concepts of self-determination and sustainability, a turning point appears to have been World War II when the initial evictions from the Mokauea Fishery ensued. At this time the area within the vicinity of the project area was placed under martial law and began to be transformed into a militarized complex with various other facilities operated by the State of Hawaii'i. The sea plane runway was dredged and several of the habitations within the Mokauea Fishery burned (Kai Makana 2015). Following the war, the occupants of the Mokauea Fishery became more multiracial (Napoka 1976:17). While no habitations are indicated within the project area during this time, nor at any time, several houses were present on Mokauea Island in 1978 along with multiple piers along the beach frontage in what is now Sand Beach Park immediately to the west of the project area (see Figure 24).

Following World War II, fishing practices were quickly adopted by and integrated with immigrants. Informant Muriel Lupenui reported that the fleet of Japanese fishermen who docked their sampans at Pu'uhalé used her fishing *kā'uia* (stone god) (Napoka 1976:16). They made offerings to the god and many of them spoke fluent Hawaiian. They would also leave fish at her house if they had a successful day (Napoka 1976:16). This transition was also noticed in the cultivation of the fishponds at Kalihī Kai.

### 3.2 Previous Archaeological Research

Fourteen formal archaeological studies have been conducted within the vicinity of the project area (Table 1 and Figure 25). These reports document historic properties located within a mile (1.6 km) of the project area. Figure 26 shows the locations of historic properties in the vicinity of the project area.

McAllister (1933) provides the baseline reference for understanding the history of archaeological investigations on O'ahu (Figure 27). This important reference utilizes background research and observations from the field to illustrate the locations, descriptions and distributions of cultural properties and associated artifacts on O'ahu. McAllister (1933:5-6) cites Formander (1878:1:164-165) in reference to two early observations of the geology and prehistory of O'ahu:

In 1822 the first wells were dug in the city of Honolulu. They passed through some eight or ten feet of surface loam and underlying volcanic sand, when a coral bed of some eight feet in thickness was encountered and cut through, under which the fresh water was reached. In this coral formation were found embedded a human skull and sundry human bones . . .

In 1858, in dredging the harbor of Honolulu, island of Oahu, near the New Esplanade, after scooping up and removing the mud and sand at the bottom of the harbor in about twenty feet of water, it was found that underneath this sand and mud

Table 1. Previous Archaeological Studies in the Vicinity of the Project Area

Reference	Type of Study	Location	Results (SIHP # 50-80-14)
McAllister 1933	Archaeological reconnaissance survey	Island-wide	Recorded five fishponds in Kalihī Kai lumped under two site numbers: Ananoho and Auiki fishponds (SIHP # -00073) and Pāhouiki, Pāhoumi, and Apili fishponds (SIHP # -00074)
Hammatt 1986	Archaeological reconnaissance survey	Sand Island, TMK: [1] 1-2-024:037	Archaeological reconnaissance of land parcel proposed for U.S. Postal Service use; no archaeological sites found; observed land entirely composed of dredged coral fill from expansion and improvement of Honolulu Harbor beginning in 1920s and substantially altered since WWII for industrial and military purposes
Wong Smith and Rosendahl 1990	Historical assessment	Honolulu Harbor, Pier 5 to Pier 14	Documents <i>Falls of Chydz</i> , SIHP # -09700, docked at Pier 7, Irwin Memorial Park (SIHP # -09829), Aloha Tower (SIHP # -09929) and Piers 8-12 (no SIHP # assigned)
Chiogioji and Hammatt 1995	Archaeological assessment	Iwilei, Sand Island, TMKs: [1] 1-5-020, 034, 041, 042	Archaeological assessment of corridor stretching from contemporary Iwilei coastline through Kapālama Channel to middle of Sand Island; archival/historical research suggested what had once been open water and tidal reefs had become reclaimed land consisting of dredged fill; no archaeological sites likely to be encountered in this area
Moore and Kennedy 1999	Burial mitigation	Pier 40, TMK: [1] 1-5-032:005	Post-Contact (but likely pre-WWI) in situ burial, SIHP # -5581, of a single individual inadvertently encountered during construction activities in 1997; remains reinterred in 1999

Reference	Type of Study	Location	Results (SIHP # 50-80-14)
McIntosh and Cleghorn 2000	Archival research and surface inventory survey	Piers 2, 12-16, 18-223, 24-29, 32, and Lagoon Dr (adjacent to Honolulu International Airport)	Surveyed large portion of coastal area belonging to Historic Downtown and Chinatown District (SIHP # -09986); report concludes no significant cultural nor archaeological deposits present or likely to be present within project area because project area exists on reclaimed land formed by dredging beginning in early 1900s
Athens and Ward 2002	Paleoenvironmental analysis	Auiki and Ananoho fishponds, Kalihi Kai	Obtained four sediment cores; analysis suggested sediments had been disturbed (through reclamation projects in and around Honolulu Harbor) and further analysis not possible
Moore et al. 2004	Archaeological inventory study	Sand Island Access Rd, eastern coastline Ke'ehi Lagoon, TMK: [1] 1-2-021:013	Six cores excavated through old fill and into area of two former fishponds, Apili, Pāhouiki and Pāhouui ( SIHP # -00074); borings did not give definitive evidence of fishpond sediments
Athens and Ward 2007	Paleo-environmental analysis	Former Ananoho Fishpond	Documented two cores but concluded "all vestiges of the former Ananoho Fishpond (SIHP # -00073) have disappeared or been destroyed"
Hammatt and Shideler 2007	Archaeological assessment	Small Boat Harbor, Kalihi Kai, TMK: [1] 1-2-025:024	No archaeological features recorded
O'Hare et al. 2007	Literature review and field inspection	Area of Kalihi-Kapālana, (extending from Auki St to Perry St, and from Sand Island Access Rd/Meyers Rd to Hart St/Kalihi St)	Identified four site types that might be encountered during construction in Kalihi-Kapālana: 1) Hawaiian fishponds and salt beds; 2) Hawaiian habitation and agricultural sites, both pre-Contact and early post-Contact; 3) pre-Contact and early post-Contact Hawaiian burials, as well as historic-era churches, and hospitals

Reference	Type of Study	Location	Results (SIHP # 50-80-14)
Hazlett et al. 2008	Archaeological monitoring	Aloha Tower Drive, Nimitz Hwy, and Richards St	No cultural deposits identified; project area's subsurface deposits appear to consist of landfill deposited during development of Honolulu Harbor
Hunkin et al. 2012	Archaeological monitoring	Kalihi/Nu'uauu Sewer Rehabilitation project	No cultural deposits; one isolated human bone fragment discovered in fill material
O'Hare et al. 2013	Archaeological literature review and field inspection	Honolulu Harbor, Piers 12 and 15, TMK: [1] 2-1-001:043, 044, 045, 055, 056	Determined Piers 12 and 15 are historic properties and pier surfaces and deposits below the piers will be affected by proposed improvements



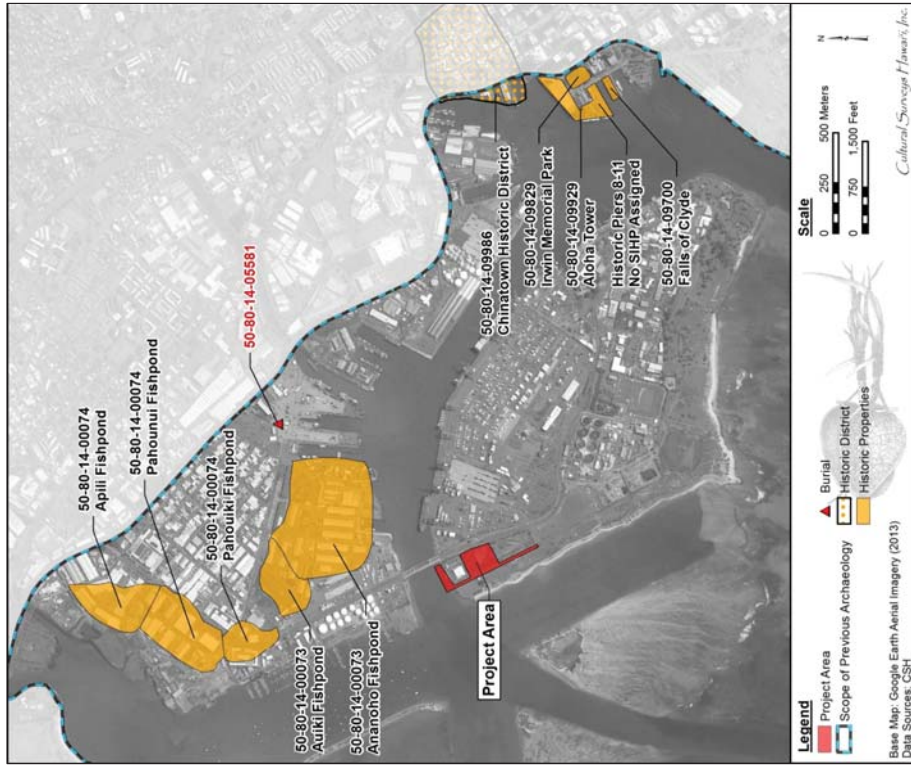


Figure 26. Previously recorded archaeological sites within the vicinity of the project area (Google Earth 2013)

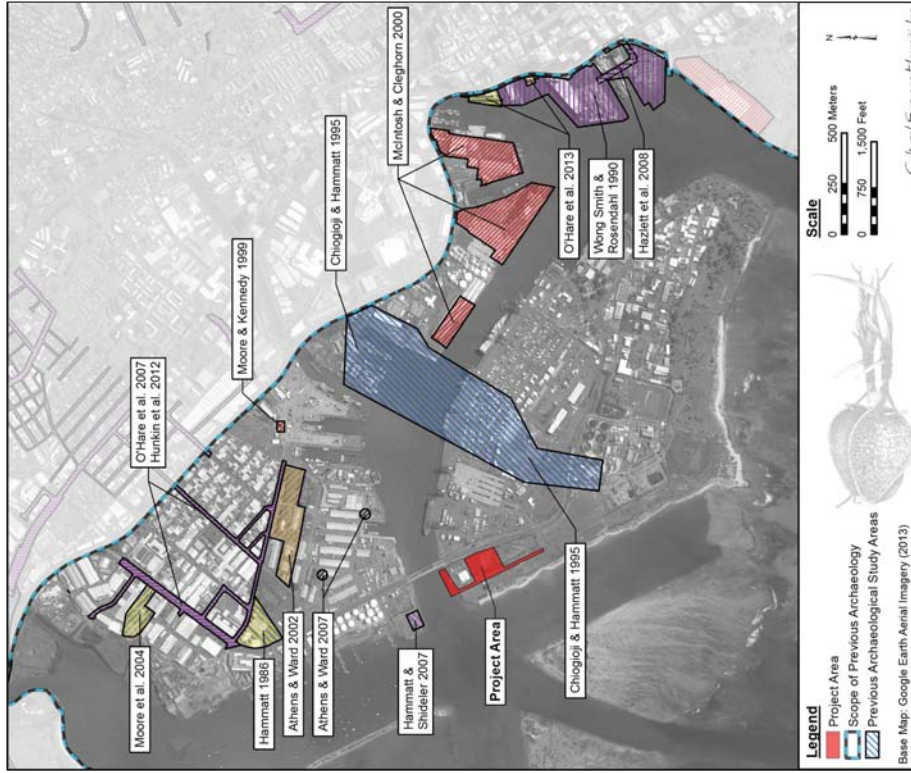


Figure 25. Previous archaeological studies within the vicinity of the project area (Google Earth 2013)

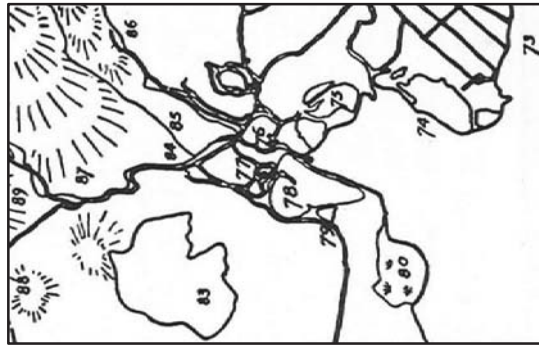


Figure 27. McAllister's (1933:90) map of Moanalua Valley showing Sites 73–91

was a pan of coral rock which it was necessary to break up and remove in order to obtain the required depth of water. This pan was of average thickness of two feet, and beneath it was a thick couch of black volcanic sand, such as is found some four or five feet beneath the surface throughout the city, and evidently thrown out by the extinct crater of Punch-bowl-hill in some pre-traditional time. Embedded in this black sand, underneath the coral bed, was found the lower part or pointed end of an ancient spear, or *oo*, about three feet long; and near to it a rounded small stone, the size of a hen's egg and nearly its shape, of red close-grained, compact, and heavy lava, such as is not found in the Punch-bowl-hill formation or its vicinity. The broken spear speaks for itself, and shows that man passed over that spot by water or by land before the formation of that coral pan which now covers the bottom of the harbor and the adjoining reefs. What purpose the stone had served I am not prepared to say, unless it had been used for slings and dropped by the same hand or the same generation that dropped the spear. It bears no geological relation to the black sand around it, to the coral rock above it, or to the extinct crater one and a Quarter miles inland. [Fornander 1878:1:164-165 in McAllister 1933:5-6]

McAllister (1933:90-91) and Sterling and Summers (1978:322) document Site 73 (Ananoho Fishpond, Kalihi) (SHPD # 50-80-14-00073) approximately 600 m to the north/northeast of the project area.

Site 73 is an oval-shaped pond 52 acres in area. The walls approximate 4700 feet in length, and average 6 feet in width. They are primarily of coral and average 3 feet in height. There are now two houses on the wall, but houses are modern. Auiki is a small adjoining pond partly filled. It is 12 acres in area with a 900-foot wall. [McAllister 1933:90]

McAllister (1933) also documents the nearby, but slightly further to the north Pahouiki, Pahounui, and Apili fishponds, grouping them as Site 74 (SIHP # -00074),

three adjoining fishponds off Kalihi. . . . Pahouiki is the smallest, being 14 acres in area with a wall 1050 feet in length. The wall is of coral, with one house . . . . It is open to Pahounui, a pond of 26 acres with a wall 2600 feet long. The walls are also of coral with one house. . . . It adjoins but does not open to Apili pond, which is 28 acres in extent, with a wall 1500 feet long. [McAllister 1933:90]

In 1986, CSH conducted an archaeological reconnaissance of a parcel on Sand Island to determine the presence or absence of archaeological sites (Hammatt 1986). This project area is situated near the intersection of Sand Island Access Road and Auiki Street. No archaeological or historical resources were found during the survey. Hammatt concludes the land was previously low lying marsh land containing fishponds, but since the 1920s has been filled with coral fill dredged from the creation of Honolulu Harbor (Hammatt 1986).

In 1990, Helen Wong Smith and Paul Rosendahl conducted a historical assessment to mitigate the impact on cultural resources for the proposed Aloha Tower Complex. They note that, "the entire project area sits on historic period fill which has been placed over an area once submerged (and thus) there are no intact prehistoric remains in the area" (Wong Smith and Rosendahl 1990:ii). That said, the report documents the Falls of Clyde, SIHP # -09700, docked at Pier 7, Irwin Memorial Park (SIHP # -09829), Aloha Tower (SIHP # -09929), and Piers 8–12 (no SIHP # assigned).

There is evidence that the people of Kalihi Kai were producing salt (Sterling and Summers 1978: 327). Salt pans can be identified on an 1870 Monsarrat map, adjacent to Loko Apili (Landrum and Klieger 1991:18).

A 1995 archaeological assessment studying four alternative alignments for a wastewater pump station force main replacement encompassed a large portion of Honolulu Harbor (Chiogioji and Hammatt 1995). The area was comprised of a corridor extending from the Hart Street pump station on the *makai* side of Nimitz Highway between Piers 33 and 38, across the Kapalama Channel to Piers 51 and 52 on Sand Island, and ending at the Sand Island wastewater treatment plant. This historical project found that the entire project area except for a small portion of the original Sand Island was once open water or tidal reef and was eventually filled or dredged during the construction and expansion of Honolulu Harbor and Sand Island, principally during the 1920s and 1930s (Chiogioji and Hammatt 1995: 23).

It was common practice for *kama āina* (Native Hawaiian resident) to bury their family members within their *kuleana* (area of responsibility and maintenance). Kamakau records the use of fishponds as burial sites. The name Ananoho, a former fishpond within the Mokuaea Fishery, implies an inhabited "āna," cave. This does not suggest Ananoho was a burial cave, but rather that fishponds often did contain caves which could have been used for burial. The islands in Ke ehi Lagoon are known to contain burials. One of the *kama āina*, Lama, charged with identifying the

boundaries of the Kaliwa Fishery, pointed out one of the "sand mounds," an islet in Kai o Kaliwa where some of her relatives were buried (Maly and Maly 2003:386). The name of the islet was Makukaloa, referring possibly to "kaloa" the three sacred nights of the month belonging to the god Kanaloa. In a more recent study, many residents or former residents of Mokauea Island were interviewed. Some of them discuss the burial of 'ohiana members on the islands (Napoka 1976:14). An inadvertent burial was discovered in 1997 at Pier 40 by Hawaiian Dredging (Moore 1997). Construction activities exposed the burial that required disinterment. Designated as SIHP # 50-80-14-5581, the inadvertent burial was found on the original coastline, within LCA 11019:2 awarded to Waolani (Moore and Kennedy 1999:5). Situated near the effluence of Kapālama Stream, this burial was near many former fishponds, the nearest being Ananoho of Kalihī Kai. SIHP # -5581 was determined to be a primary burial, probably post-Contact, and was identified as significant for its potential to yield information of scientific value (criterion "d" of the five State of Hawai'i historic property significance criteria) as well as being significant based upon its cultural value (criterion "e") (Moore 1997:11).

A 2000 study, *Archaeological Report for the Oahu Commercial Harbors 2020 Master Plan*, was conducted by McIntosh and Clegghorn. The investigation included a literature review and an archaeological surface survey of a large portion of coastal area belonging to Historic Downtown and Chinatown District (SIHP # -09986). The report concludes no significant cultural or archaeological deposits are present or likely to be present within the project area because the project area exists on reclaimed land formed by dredging beginning in early 1900s. The project area was determined to be "on recently created land, formed by numerous dredging and filling operations" (McIntosh and Clegghorn 2000:i). While no intact cultural resources were observed within the harbor, ten piers older than 50 years old were documented, determined to be in poor condition and were not recommended eligible for the National Register of Historic Places.

In 2002, a fishpond investigation was conducted on the construction site for the proposed Department of Agriculture Plant Quarantine building and the Measurement Standards and Commodities (MS&C) building in Kalihī Kai (Athens and Ward 2002). The current site consisted of fill overlaying traditional Hawaiian fishponds known as Auiki and Ananoho (SIHP # -00073). In an effort to mitigate anticipated negative impacts to the identified fishponds underlying the fill in this site, sediment cores were obtained to recover information regarding these fishponds (State of Hawai'i historic property significance criterion "d"). Based on four core samples taken from the two ponds, it was found that the sediments had been disturbed and thus further analysis was not possible (Athens and Ward 2002:43).

A 2004 study of a property on the eastern coastline of Ke'ehi Lagoon, off Sand Island Access Road, was conducted to meet requirements specified by the National Historic Preservation Act (NHPA) and the Department of Land and Natural Resources, State Historic Preservation Division (DLNR-SHPD) (Moore et al. 2004). The investigations included a pedestrian survey and subsurface testing consisting of six cores through old fill and into former fishponds that once ringed Kalihī Kai peninsula. Through historical research, it was found that the project area overlies two prehistoric/historic fishponds, Apili and Pahouiki. The results of the borings did not give definitive evidence of fishpond sediments and it was hypothesized based on this and previous fishpond studies that fishpond sediments form relatively thin layers 10cm+/-5cm in thickness (Moore et al. 2004:25).

*Loko (loko i'a)*, or Hawaiian fishponds, are unique archaeological features. Kikuchi (1976:295) notes that Kiribati is the only other archipelago in Oceania having fishponds. These features create not only a unique archaeological landscape, but represent "symbols of chiefly status and power, and that they were under direct control of chiefs or their land managers" (Athens and Ward 2007:8). Athens and Ward (1997:1) describe fishpond sediments as consisting "of a dark gray and relatively homogenous silt loam, clay loam, or silty clay loam with occasional small fragments of fine shells and other marine debris." They note further that "supplementary information from radiocarbon dating, pollen analysis, and diatom analysis is also helpful for confirming the identification of fishpond layers," while admitting that "none of these types of data alone provide an exclusive signature for the recognition of fishponds in a stratigraphic column." In 2007, Athens and Ward conducted a paleo-environmental investigation of McAllister's Site 73, Ananoho Fishpond (SIHP # -00073), noting that, "Following filling during World War II (after 1943), the location was used by the Army as part of a port and warehouse complex, and between 1976 and 1992 some facilities were used by the U.S. Army Central Identification Laboratory. Kapālama Military Reservation was deactivated in 1993 and the land returned to the City and County of Honolulu" (Athens and Ward 2007:iii). Conclusions drawn from this radiocarbon and pollen analysis indicate secondarily mixed sediments and that "all vestiges of the former Ananoho Fishpond have disappeared or been compromised as a result of industrial development undertaken in the 1940s and early 1950s" (Athens and Ward 2007:iii).

In 2007, Hammatt and Shideleer conducted an archaeological investigation of the Ke'ehi Lagoon Small Boat Harbor to mitigate the development of a small shipyard at Ke'ehi Lagoon Small Boat Harbor. No cultural resources were observed and the authors commented that, "the land component of the project area is believed to be entirely Twentieth Century fill. Historic and archival research and previous cultural studies suggest there are rich traditions associated with the Mokauea Fishery where the project area is located" (Hammatt and Shideleer 2007:i).

Also in 2007, an archaeological investigation was conducted to assist in mitigating the impact on cultural resources during the Kalihī-Kapālama portion of the Kalihī/Nu'uuanu Sewer Rehabilitation project (O'Hare et al. 2007). No new archaeological sites were noted.

Archaeological monitoring (Hazlett et al. 2008) was conducted to mitigate the potential impact on cultural resources during a 12-inch and 16-inch water main installation project on Aioha Tower Drive, Nimitz Highway, and Richards Street. No cultural deposits were identified and the project area's subsurface deposits appear to consist of landfill deposited during the development of Honolulu Harbor.

Hunkin et al. (2012) conducted archaeological monitoring to mitigate potential impacts on cultural resources during the Phase 1 Kalihī/Nu'uuanu Sewer Rehabilitation project, Kalihī, Kapālama, Nu'uuanu, Paoa, and Makiki Ahupua'a. No cultural deposits were identified as a result of the project's monitoring program, however, one isolated human bone fragment was discovered in fill material. The custody of this skeletal fragment was transferred to the SHPD per HAR §13-300-40(a) and treatment of the fragment was carried out under the department's authority.

O'Hare et al. (2013) conducted an archaeological literature review and field inspection for Honolulu Harbor Piers 12 and 15 and determined that these features, within SIHP # -09929, are historic properties and that the pier surfaces and deposits below the piers will be affected by the proposed improvements.



### 3.3 Background Summary and Predictive Model

The project area is located within the traditional boundaries of the Mokauea Fishery. Maps indicate a portion of Mokauea Island existed within the project area prior to and in the early part of the twentieth century. According to background research, four site types could occur within vicinity the project area: 1) Hawaiian habitation, 2) fishponds, 3) salt beds, and 4) pre-Contact and early post-Contact Hawaiian burials as well as historic-era burials.

Subsurface testing will test for the presence /absence of natural sediments deposited on Mokauea Island. That said, previous archaeological research within the immediate vicinity of the project area, summarized in Table 1 and illustrated in Figure 25 and Figure 26, indicate archaeological surfaces from within the project area have been highly altered or destroyed mechanically with the historical development of the area. Historic fill deposits are predicted to dominate subterranean stratigraphy. Background research indicates the project area has been impacted by a series of significant mechanized developments and that very little of the land/waterscapes from before the early 1900s remain today. Previous archaeology indicates no cultural properties within nor immediately adjacent to the project area. That said, the most likely type of archaeological site within the project area is a habitation site.

Habitation within the project area, if existent, is predicted to take the form of traditional fishing houses. Islands within and around the Mokauea Fishery have been inhabited and farmed for fish since at least the sixteenth and seventeenth centuries (Athens and Ward 2002:43) and likely well before this. Families traditionally owned homes on land or in the *mauka* areas of Kalihi while maintaining a fishing house on one of the islands. It is also unlikely that human burials exist within the project area, however, islands, fishponds, and coastlines were utilized as traditional burial sites by Hawaiians.

## Section 4 Results of Fieldwork

### 4.1 Pedestrian and Underwater Inspection Results

Prior to subsurface testing, a thorough pedestrian inspection of the open and non-built areas within the project area was undertaken for the purpose of historic property identification and documentation of any surface cultural properties. The project area was surveyed on foot, using a GPS device to establish a track record and to document the location of observed utilities. Photographs were taken and no new cultural properties were found within the project area.

Easement 1 (see Figure 4) is the portion of the project area proposed for a floating dock and thus this portion of the project area was surveyed as an archaeological dive (Figure 28). Three divers completed six transects of Easement 1 with 3-m spacing in the 150-m long by 50-m wide (7,500 sq m or 1.85 acres) submerged portion of the project area. SCUBA equipment was used given the depth of the water. A team of three divers swam four east-west transects with divers spaced at roughly 3 m intervals. The submerged section of the project area is located within the Kalihi Channel. The depth of the channel varied between 1.5-10.0 m (5-33 ft) and visibility was approximately 3 m (10 ft). The channel floor largely consists of fine silt and mud, while the upper bank is reinforced with dredged coral fragments and large boulder piles. The sea bottom was littered with a variety of modern trash including piping, steel grates, and a concrete block. No traditional Hawaiian or historic artifacts/materials were observed (Figure 29, Figure 30, and Figure 31).



Figure 28. General view of CSH archaeologist in Easement 1 during the underwater survey

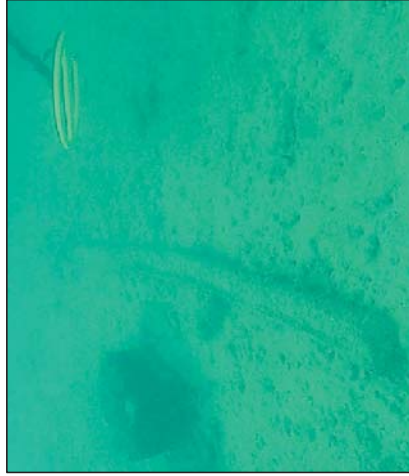


Figure 29. Pipe and rectangular concrete block observed during underwater survey of Easement 1 (archaeologist's metal detector at upper right)



Figure 30. Pipe observed during underwater survey of Easement 1



Figure 31. Steel grates observed during underwater survey of Easement 1

#### 4.2 Subsurface Testing Results

A total of 11 backhoe-assisted test excavations (T) were completed and given the designations T-1 through T-11 (see Figure 7). The trenches were distributed throughout the project area to provide comprehensive testing coverage, with specific emphasis on locating, if existent, natural in situ sediments from Mokauea Island. The dimensions of each test excavation typically measure approximately 6.0 m (20 ft) long by 0.80 m (2.6 ft) wide. The depth of excavation typically extends to 2.0 m (6.6 ft), varying from 1.7 m (5.6 ft) to up to 3.2 m (10.5 ft). That said, for trench stability and access, one portion of each trench was excavated in roughly 1 m steps, with the other half of the excavation extending deeper, typically to 2 m below surface.

CSH archaeologists observed a generally similar pattern of stratigraphic sequences of historic fills. Test excavations 4, 5, and 7 (T-4, T-5, and T-7), all within the southwest corner of Parcel B of the project area, are the only trenches in which natural sediments are encountered. T-7, T-8, and T-9 are the only trenches in which artifacts were observed. No artifacts were observed in context with natural sediments; all observed artifacts are historic and none of them are deemed traditional. The high organic content observed within Stratatum Ia throughout the project area is likely the result of cat feces from an exceptionally robust cat population living and being fed within the project area, as observed by CSH archaeologists. In order to establish a control sample of sediments, two test excavations, T-1 and T-11, were placed strategically away from the historically mapped boundary of Mokauea Island prior to twentieth century dredging and bulldozing of the area. No utilities were encountered during excavation.



#### 4.2.1 Test Excavation T-1

T-1 was located in the northwest corner of Parcel B, near Easement 2, and extended perpendicular toward the access road (see Figure 7). T-1 measured 5.5 m long by 0.8 m wide and was oriented 250° in a northeast-southwest direction. The test excavation was excavated to 2.5 m below surface in the southwestern half of the excavation and to 1.75 m below surface in the northeastern half. The water table was observed at 2.25 m below surface. The stratigraphic profile of T-1 consists of an organic loamy sand fill (Stratum Ia), sand fill (Stratum Ib), a hydraulic pump-dredged clay loam fill (Stratum Ic), clay loam fill (Stratum Id), loamy sand fill (Stratum Ie), and a loamy sand fill (Stratum If) that includes the water table surface and extends to the base of excavation (Figure 32, Figure 33, Figure 34, and Table 2). No artifacts or cultural resources of any form were observed within T-1.



Figure 32. T-1 south sidewall profile, oblique view to northeast



Figure 33. T-1 Oblique profile view to southwest

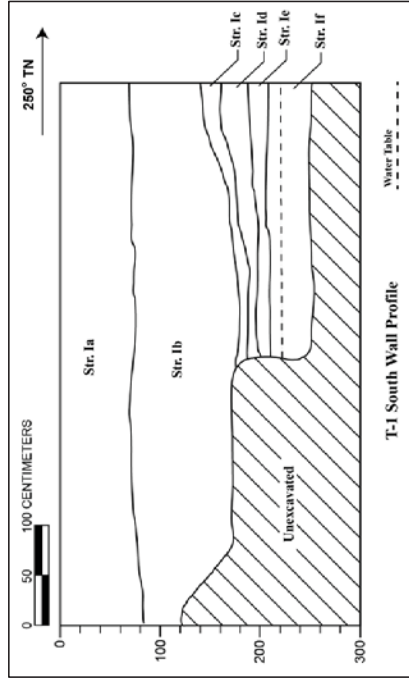


Figure 34. Profile drawing of T-1 south sidewall

Table 2. Stratigraphic Description of T-1

Stratum	Depth (cmbs)	Description of Sediment
Ia	0-185	Fill; 10YR 3/3, dark brown; loamy sand; weak, medium, granular structure; moist, loose consistency; no cementation; non-plastic; terrigenous origin; clear, smooth lower boundary; few, fine roots; very organic
Ib	120-180	Fill; 10YR 8/2, very pale brown; sand; weak, medium, granular structure; moist, loose consistency; no cementation; non-plastic; terrigenous origin; clear, smooth lower boundary
Ic	140-185	Hydraulic Fill; 10YR 8/3, very pale brown; clay loam; strong, very fine, granular structure; moist, firm consistency; no cementation; plastic; marine origin; clear, wavy lower boundary
Id	160-200	Fill; GLEY 10Y 6/1, greenish gray; clay loam; strong, very fine, granular structure; moist, firm consistency; no cementation; plastic; marine origin; clear, smooth lower boundary
Ie	185-210	Fill; 10YR 8/2, very pale brown; loamy sand; weak, fine, granular structure; moist, loose consistency; no cementation; non-plastic; marine origin; clear, smooth lower boundary
If	205-245 (BOE)	Fill; GLEY 10Y 6/1, greenish gray; loamy sand; weak, fine, granular structure; moist, loose consistency; no cementation; slightly plastic; marine origin; clear, smooth lower boundary

4.2.2.2 Test Excavation T-2

T-2 was located in the central, southwest side of Parcel B, along Easement 3, and extended perpendicular toward the access road (see Figure 7). T-2 measured 6.5 m long by 0.8 m wide and was oriented at 230° in a northeast-southwest direction. The test excavation was excavated to 1.7 m below surface in the southwestern half of the excavation and to 2.4 m below surface in the northeastern half. The water table was observed at 2.2 m below surface. The stratigraphic profile of T-2 consists of an organic layer of gravelly, loamy sand (Stratum Ia), overlying a pocket of silty clay loam fill (Stratum Ib), a layer of very cobbly crushed coral and sand fill (Stratum Ic), a layer of hydraulic pump-dredged loamy sand fill (Stratum Id) and a hydraulic pump-dredged loamy sand fill (Stratum Ie) which includes the water table and extends to the base of excavation (Figure 35, Figure 36, Figure 37, Figure 38, and Table 3). No artifacts or cultural resources of any form were observed within T-2.



Figure 35. General overview of T-2 to the southwest, noting the current location of Mokauea Island in the distance across the dredged seaplane runway channel





Figure 37. T-2 plan view to southwest

Archaeological Assessment for the SOEST Facility at Sand Island and Floating Dock at the METC, Honolulu, Oahu  
TMK: [1] 1-5-041:334 por. and 006 por.



Figure 36. T-2 oblique profile view to northeast

Archaeological Assessment for the SOEST Facility at Sand Island and Floating Dock at the METC, Honolulu, Oahu  
TMK: [1] 1-5-041:334 por. and 006 por.

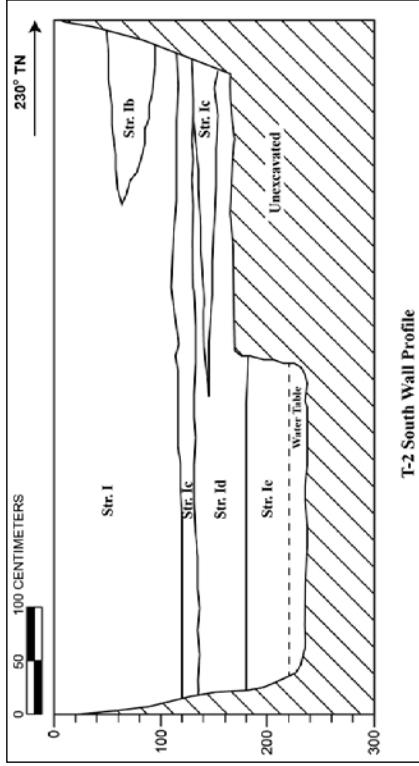


Figure 38. Profile drawing of T-2 south sidewall

Table 3. Stratigraphic Description of T-2

Stratum	Depth (cmbs)	Description of Sediment
Ia	0–120	Fill; 10YR 5/3, brown; gravelly, loamy sand; weak, medium, granular structure; moist, loose consistence; no cementation; non-plastic; terrigenous origin; clear, smooth lower boundary; common, fine roots; very organic
Ib	50–95	Fill; 10YR 8/2, very pale brown; silty clay loam; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; marine origin; clear, smooth lower boundary
Ic	110–150	Crushed coral fill; 10YR 8/2, very pale brown; very cobbly, sand; weak, medium, granular structure; moist, friable consistence; no cementation; non-plastic; marine origin; clear, smooth lower boundary
Id	135–180	Hydraulic Fill; GLEY 10Y 1 8/1, light greenish gray; loamy sand; moderate, fine, granular structure; moist, friable consistence; no cementation; non-plastic; marine origin; clear, smooth lower boundary
Ie	180–240 (BOE)	Hydraulic Fill; 10YR 8/3, very pale brown; loamy sand; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; marine origin; clear, smooth lower boundary not visible

4.2.3 Test Excavation T-3

T-3 was located directly in the center of Parcel B in an open field, running parallel to Sand Island Parkway (see Figure 7). T-3 measured 6 m long by 0.8 m wide and was oriented at 230° in a northeast-southwest direction. The test excavation was excavated to 1.7 m below surface in the southwestern half of the excavation and to 2.9 m below surface in the northeastern half. The water table was observed at 2.4 m below surface. The stratigraphic profile of T-3 consists of an organic layer of gravelly, loamy sand fill (Stratum Ia), overlying sand fill (Stratum Ib), cobbly crushed coral and sand fill (Stratum Ic), hydraulic pump-dredged clay loam fill (Stratum Id), hydraulic pump-dredged loamy sand fill (Stratum Ie), and a hydraulic pump-dredged loamy sand fill (Stratum If), which includes the water table surface and extends to the base of excavation (Figure 39, Figure 40, Figure 41, and Table 4). No artifacts or cultural resources of any form were observed within T-3.



Figure 39. T-3 south sidewall profile, oblique view to southeast



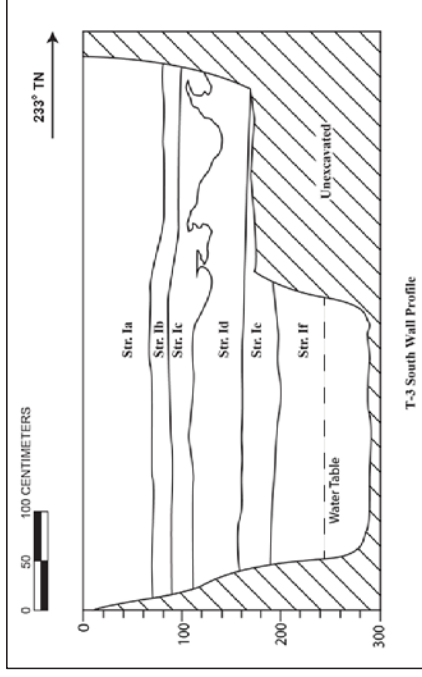


Figure 41. Profile drawing of T-3 south wall profile

Table 4. Stratigraphic Description of T-3

Stratum	Depth (cmbs)	Description of Sediment
Ia	0-80	Fill; 10YR 4/3, brown; gravelly, loamy sand; weak, medium, granular structure; moist, friable consistency; no cementation; non-plastic; terrigenous origin; clear, smooth lower boundary; common, fine roots; very organic
Ib	65-95	Fill; 10YR 7/6, yellow; sand; weak, fine, granular structure; moist, friable consistency; no cementation; non-plastic; marine origin; clear, smooth lower boundary
Ic	85-140	Fill; 10YR 8/2, very pale brown; cobbly crushed coral and sand; weak, medium, granular structure; moist, loose consistency; no cementation; non-plastic; marine origin; clear, smooth lower boundary
Id	100-165	Hydraulic Fill; 10YR 6/1, gray; clay loam; moderate, fine, granular structure; moist, firm consistency; no cementation; plastic; marine origin; clear, smooth lower boundary
Ie	160-200	Hydraulic Fill; 10YR 5/4, yellowish brown; sandy loam; weak, medium, granular structure; moist, loose consistency; no cementation; non-plastic; marine origin; clear, smooth lower boundary
If	200-295 (BOE)	Hydraulic Fill; 10YR 7/4, very pale brown/ sand; weak, medium, granular structure; moist, friable consistency; no cementation; non-plastic; marine origin; lower boundary not visible



Figure 40. T-3 south sidewall profile, view to southwest

#### 4.2.4 Test Excavation T-4

T-4 was located in a grassy field along the southeast boarder of Parcel B near the southern corner (see Figure 7). T-4 measured 5.5 m long by 0.8 m wide and was oriented at 210° in a northeast-southwest direction. The test excavation was excavated to 1.5 m below surface in the southwestern half of the excavation and to 2.2 m below surface in the northeastern half. The water table was observed at 1.95 m below surface. The stratigraphic profile of T-4 consists of an organic layer of gravelly, foamy sand fill (Stratum Ia) overlying a very cobbly crushed coral and sand fill (Stratum Ib), and a natural layer of cobbly sand (Stratum II) starting at 1.4 m below surface. Stratum II includes the water table surface and extends to the base of excavation (Figure 42, Figure 43, Figure 44, Figure 45, and Table 5). No artifacts or cultural resources of any form were observed within T-4.



Figure 42. T-4 southwest sidewall profile, oblique view to south with blue arrow indicating natural sediments in Stratum II at 140 cmbs



Figure 43. T-4 southwest sidewall profile view to north



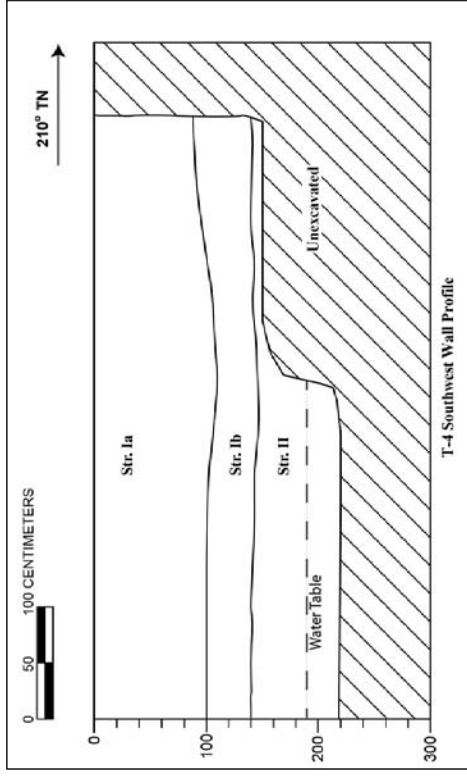


Figure 45. Profile drawing of T-4 southwest sidewall

Table 5. Stratigraphic Description of T-4

Stratum	Depth (cmbs)	Description of Sediment
Ia	0-110	Fill; 10YR 3/2, very dark grayish brown; gravelly, sandy loam; weak, fine, granular structure; moist, friable consistency; no cementation; non-plastic; mixed origin; clear, smooth lower boundary; many, fine to medium roots; very organic
Ib	110-145	Crushed coral fill; 10YR 7/3, very pale brown; very cobbly crushed coral and sand; weak, fine, granular structure; moist, friable consistency; no cementation; non-plastic; marine origin; clear, smooth lower boundary; few, fine roots
II	140-219 (BOE)	Natural; 10YR 8/2, very pale brown; cobbly sand; moderate, very fine, granular structure; moist, friable consistency; no cementation; non-plastic; marine origin; lower boundary not visible

Figure 44. T-4 plan view to south-southwest



#### 4.2.5 Test Excavation T-5

T-5 was located in a grassy field near the southern corner evenly placed between the southwest and southeast borders of Parcel B, running parallel to Easement 3 (see Figure 7). T-5 measured 5.4 m long by 0.8 m wide and was oriented at 315° in a northwest-southeast direction. The test excavation was excavated to 2 m below surface in the southeastern half of the excavation and to 1.55 m below surface in the northwestern half. The water table was observed at 1.93 m below surface. The stratigraphic profile of T-5 consists of a fill layer of organic, gravelly, sandy loam (Stratum Ia), a layer of extremely gravelly sandy clay loam fill (Stratum Ib), a hydraulic pump-dredged silty clay fill (Stratum Ic), an extremely cobbly crushed coral and sand fill (Stratum Id), overlying two natural layers of marine sand (Stratum II), and Stratum III, which includes the water table surface and extends to the base of excavation (Figure 46, Figure 47, Figure 48, and Table 6). No artifacts or cultural resources of any form were observed within T-5.



Figure 46. T-5 southwest sidewall profile, view to southwest with blue arrow indicating natural sediments in Stratum II at the BOE



Figure 47. T-5 southwest sidewall profile view to west with metric tape resting on the BOE at the mid-trench step



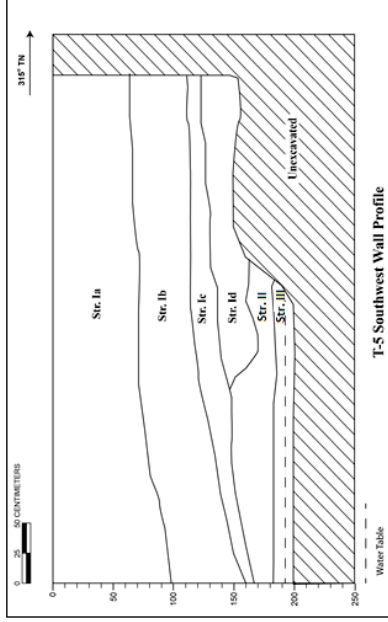


Figure 48. Profile drawing of T-5 southwest sidewall

Table 6. Stratigraphic Description of T-5

Stratum	Depth (cmbs)	Description of Sediment
Ia	0–100	Fill; 10YR 3/3, dark brown; gravelly, sandy loam; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; mixed origin; clear, smooth lower boundary; many, fine to medium roots
Ib	60–160	Fill; 10YR 4/3, brown; extremely gravelly, sandy clay loam; moderate, fine, granular structure; moist, friable consistence; no cementation; non-plastic; mixed origin; clear, smooth lower boundary; few fine to coarse roots
Ic	120–170	Hydraulic Fill; 2.5Y 6/2, light brownish gray; silty clay; strong, coarse, granular structure; moist, extremely firm consistence; no cementation; plastic; marine origin; clear, wavy lower boundary
Id	120–175	Crushed coral fill; 10YR 8/2, very pale brown; extremely cobbly sand; single grain structureless; moist, loose consistence; no cementation; non-plastic; marine origin; clear, discontinuous lower boundary; many fine roots
II	150–190	Natural; 10YR 8/2, very pale brown; sand, weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; marine origin; diffuse, smooth lower boundary
III	190–200 (BOE)	Natural; GLEY 5GY 1 6/1, greenish gray; sand; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; marine origin; lower boundary not visible

4.2.6 Test Excavation T-6

T-6 was located on the southwest side of Parcel B, along Easement 3, and parallel to the access road (see Figure 7). T-6 measured 5.3 m long by 0.8 m wide and was oriented at 330° in a northwest-southeast direction. The test excavation was excavated to 1.65 m below surface in the southeastern half of the excavation and to 2.2 m below surface in the northwestern half. The water table was observed at 2.0 m below surface. The stratigraphic profile of T-6 consists of an organic layer of sandy loam fill (Stratum Ia) overlying two sand fills (Stratum Ib and Stratum Ic), two hydraulic pump-dredged sand fills (Stratum Id and Stratum Ie), and a hydraulic pump-dredged loamy sand fill (Stratum If) that includes the water table surface and extends to the base of excavation (Figure 49, Figure 50, Figure 51, Figure 52 and Table 7). No artifacts nor cultural resources of any form were observed within T-6.



Figure 49. T-6 southwest sidewall profile, oblique view to west



Figure 50. T-6 southwest sidewall profile, close-up oblique view to west



Figure 51. T-6 southwest sidewall profile oblique view to south



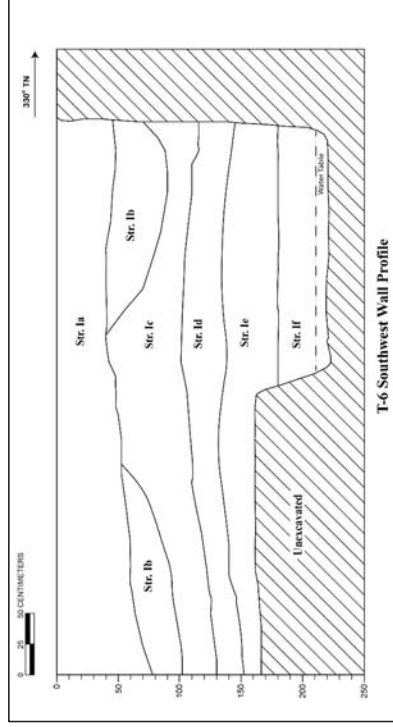


Figure 52. Profile drawing of T-6 southwest sidewall

Table 7. Stratigraphic Description of T-6

Stratum	Depth (cmbs)	Description of Sediment
Ia	0-75	Fill; 10YR 3/3, dark brown; moderate, coarse, granular structure; moist, friable consistency; no cementation; slightly plastic; terrigenous origin; clear, smooth lower boundary; common, fine roots; very organic
Ib	45-100	Fill; 10YR 8/2, very pale brown; sand; weak, medium, granular structure; moist, loose consistency; no cementation; non-plastic; marine origin; clear, smooth lower boundary
Ic	50-130	Fill; 10YR 6/4, light yellowish brown; loamy sand; weak, medium, granular structure; moist, loose consistency; no cementation; non-plastic; marine origin; clear, smooth lower boundary
Id	100-150	Hydraulic Fill; 10YR 8/3, very pale brown; sand; weak, medium, granular structure; moist, loose consistency; no cementation; non-plastic; marine origin; clear, smooth lower boundary
Ie	130-180	Hydraulic Fill; 10YR 8/2, very pale brown; sand; weak, fine, granular structure; moist, loose consistency; no cementation; non-plastic; marine origin; clear, smooth lower boundary
If	180-225 (BOE)	Hydraulic Fill; GLEY 5GY 1 7/1, light greenish gray; loamy sand; moderate, fine, granular structure; moist, friable consistency; no cementation; slightly plastic; marine origin; clear, smooth lower boundary

#### 4.2.7 Test Excavation T-7

T-7 was located near the southern corner in the southwest quadrant of Parcel B, along Easement 3, and parallel to the access road (see Figure 7). T-7 measured 5.3 m long by 0.8 m wide and was oriented at 149° in a southeast-northwest direction. The test excavation was excavated to 2.2 m below surface in the southeastern half of the excavation and to 0.60 m below surface in the northwestern half. The water table was observed at 2.2 m below surface. The stratigraphic profile of T-7 consists of an organic layer of loamy sand fill (Stratum Ia) overlying extremely cobbly loamy sand fill (Stratum Ib), hydraulic pump-dredged loamy sand fill (Stratum Ic), hydraulic pump-dredged loamy sand fill (Stratum Id), and a natural layer of marine sand (Stratum II) that includes the water table surface and extends to the base of excavation (Figure 53, Figure 54, Figure 55, Figure 56, Figure 57, and Table 8).

All observed artifacts are historic and none of them are deemed traditional. Carpet strands, a garden hose fragment, and a tire were observed in the T-7 profile but not collected. Two glass bottles (Acc. # 1 and Acc. #2), and a seven of spades playing card (Acc. # 3) were collected and analyzed. Further discussion of these artifacts can be found in Section 5, Artifact Analysis.



Figure 53. T-7 northeast sidewall profile oblique view to north with red arrow indicating carpet strands and green garden hose in the profile



Figure 55. T-7 northeast sidewall profile at the base of excavation, view to north with blue arrow indicating small protruberance of natural sediments in Stratum II at the BOE



Figure 54. T-7 northeast sidewall profile close-up at the base of excavation, view to east to the BOE





Figure 56. T-7 view to north of automobile tire in situ, 110 cm below the surface with underlying red arrow indicating carpet strands

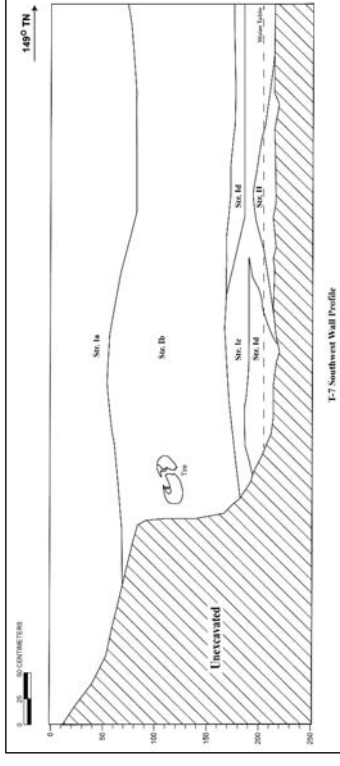


Figure 57. Profile drawing of T-7 northeast sidewall

Table 8. Stratigraphic Description of T-7

Stratum	Depth (cmbs)	Description of Sediment
Ia	0-90	Fill; 10YR 3/3, dark brown; loamy sand; weak, medium, granular structure; moist, friable consistency; no cementation; non-plastic; terrigenous origin; clear, smooth lower boundary; common, fine roots; very organic
Ib	55-190	Fill; 10YR 3/2, very dark grayish brown; extremely cobbly loamy sand; weak, medium, granular structure; moist, friable consistency; no cementation; non-plastic; marine origin; clear, smooth lower boundary; few, medium roots
Ic	170-220 (BOE)	Hydraulic Fill; 10YR 8/2, very pale brown; loamy sand; weak, fine, granular structure; moist, friable consistency; no cementation; non-plastic; marine origin; lower boundary not visible
Id	175-220 (BOE)	Hydraulic Fill; GLEY 10GY 1 6/1, greenish gray; loamy sand; fine, granular structure; moist, friable consistency; no cementation; slightly plastic; marine origin; lower boundary not visible
II	210-240 (BOE)	Natural; 2.5Y 8/4, pale yellow; sand; weak, coarse, granular structure; moist, loose consistency; no cementation; slightly plastic; marine origin; lower boundary not visible

Figure 57. Profile drawing of T-7 northeast sidewall

#### 4.2.8 Test Excavation T-8

T-8 was located within a field in the southeastern quadrant of Parcel B near the southeastern border of the project area and extends perpendicular toward Sand Island Parkway. T-8 measured 5.3 m long by 0.8 m wide and was oriented at 230° in a southwest-northeast direction (see Figure 7). The test excavation was excavated to 2.5 m below surface in the southwestern half of the excavation and to 1.5 m below surface in the northeastern half. The water table was observed at 2.45 m below surface. The stratigraphic profile of T-8 consists of five fill layers of sand. These layers include a gravelly, sandy loam fill (Stratum Ia) overlying gravelly, loamy sand fill (Stratum Ib), hydraulic pump-dredged silty clay loam fill (Stratum Ic), cobbly crushed coral and sand fill (Stratum Id), and a layer of hydraulic pump-dredged loamy sand fill (Stratum Ie). Stratum Ie includes the water table surface and extends to the base of excavation (Figure 58, Figure 59, Figure 60, and Table 9).

All observed artifacts are historic and none of them are deemed traditional. A metal cable fragment was observed at 25 cm below the surface, and a PVC pipe fragment was observed in the southwest wall profile at 50 cm below the surface but neither of these were not collected. Acc. # 5, a metal chain and hook was discovered in Stratum Ia, as well as Acc. # 6, an unidentified metal object, both further discussed in Section 5, Artifact Analysis.



Figure 58. T-8 southwest sidewall profile, view to west with orange arrow indicating metal cable fragment



Figure 59. T-8 southwest sidewall profile, view to south with red arrow indicating PVC pipe fragment and orange arrow indicating metal cable fragment

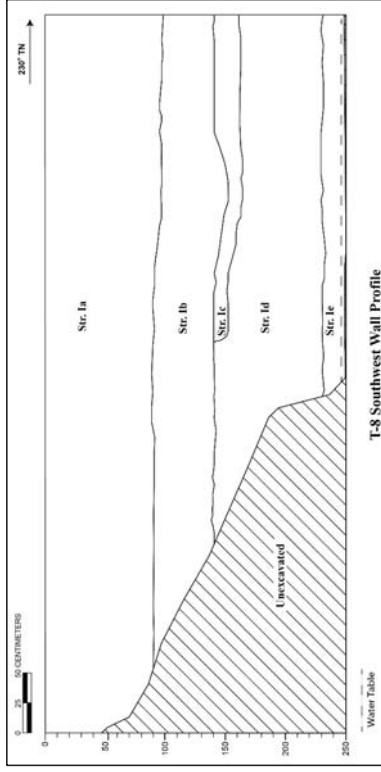


Figure 60. Profile view of T-8 southwest sidewall

Table 9. Stratigraphic Description of T-8

Stratum	Depth (cmbs)	Description of Sediment
Ia	0-104	Fill; 10YR 4/3, brown; gravelly, sandy loam; weak, fine, granular structure; moist, friable consistency; no cementation; non-plastic; terrigenous origin; clear, smooth lower boundary; common, fine roots
Ib	90-152	Fill; 10YR 5/3, brown; gravelly, loamy sand; weak, fine, granular structure; moist, friable consistency; no cementation; non-plastic; mixed origin; clear, smooth lower boundary
Ic	140-165	Hydraulic fill; GLEY 1 4/1 5GY, greenish gray; silty clay loam; moderate, medium granular structure; moist, firm consistency; no cementation; slightly plastic; marine origin; clear, discontinuous lower boundary
Id	140-230	Crushed coral fill; 10YR 6/3, pale brown; cobbly sand; weak, fine, granular structure; moist, friable consistency; no cementation; ; non-plastic; marine origin; clear, smooth lower boundary
Ie	230-250 (BOE)	Hydraulic fill; 2.5Y 7/2, light gray; loamy sand; moderate, fine, granular structure; moist, friable consistency; no cementation; non-plastic; marine origin; lower boundary not visible

4.2.9 Test Excavation T-9

T-9 was located within a field in the eastern quadrant near the center of Parcel B. T-9 measured 6 m long by 0.8 m wide and was oriented at 315° in a northwest-southeast direction (see Figure 7). The test excavation was excavated to 3.2 m below surface in the southeastern half of the excavation and to 2.0 m below surface in the northwestern half. The water table was observed at 3.0 m below surface. The stratigraphic profile of T-9 consists of four stratigraphic layers of fill, including a gravelly, sandy loam fill (Stratum Ia) overlying a hydraulic pump-dredged sand fill (Stratum Ib), a hydraulic pump-dredged silty clay loam fill (Stratum Ic), and hydraulic pump-dredged sandy loam fill (Stratum Id). Stratum Id includes the water table and extends to base of excavation (Figure 61, Figure 62, Figure 63, and Table 10).

All observed artifacts are historic and none of them are deemed traditional. Acc. # 4, a brick fragment with adhering white mortar, was collected from 0-105 cm below the surface in T-9. Further analysis of this artifact can be found in Section 5, Artifact Analysis.



Figure 61. T-9 southwest sidewall profile, oblique view to south





Figure 62. T-9 plan view to west

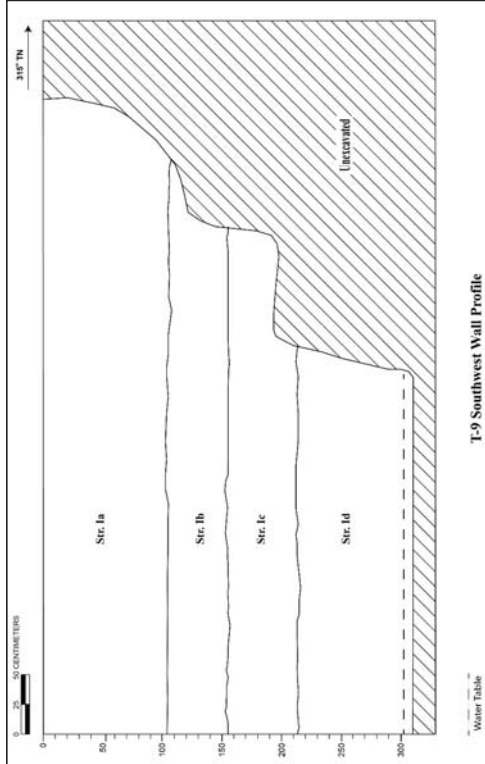


Figure 63. Profile drawing of T-9 southwest wall profile

Table 10. Stratigraphic Description of T-9

Stratum	Depth (cmbs)	Description of Sediment
Ia	0-105	Fill; 10YR 4/3, brown; gravelly, sandy loam; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; mixed origin; clear, smooth lower boundary; few, fine to medium roots
Ib	105-155	Hydraulic Fill; 10YR 8/2, very pale brown; sand; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; marine origin; clear, smooth lower boundary
Ic	155-215	Hydraulic Fill; GLEY 1 6/1 10Y, greenish gray; silty clay loam; moderate, medium granular structure; moist, firm consistence; no cementation; slightly plastic; marine origin; clear, smooth lower boundary
Id	215-310 (BOE)	Hydraulic Fill; GLEY 1 7/1 5GY, light greenish gray; sandy loam; weak, fine, granular structure; moist, friable consistence; no cementation; ; non-plastic; marine origin; lower boundary not visible

#### 4.2.10 Test Excavation T-10

T-10 was located within the southeast corner of Parcel B near the Sand Island Parkway (see Figure 7). T-10 measured 6.7 m long by 0.80 m wide and was oriented at 205° in a southwest-northeast direction. The test excavation was excavated to 2.3 m below surface in the southwestern half of the excavation and to 1.8 m below surface in the northeastern half. The water table was not observed. The stratigraphic profile of T-10 consists of an organic cobbly loamy sand fill (Stratum Ia) overlying three layers of hydraulic pump-dredged fill including a hydraulic pump-dredged sand (Stratum Ib), a hydraulic pump-dredged silty clay loam (Stratum Ic), and hydraulic pump-dredged sandy loam (Stratum Id). Stratum Id extends to the base of excavation. No water table was encountered in T-10 (Figure 64, Figure 65, Figure 66, and Table 11). No artifacts or cultural resources of any form were observed within T-10.



Figure 64. T-10 southwest sidewall profile, oblique view to west



Figure 65. T-10 southwest wall profile, oblique close up of BOE, view to west



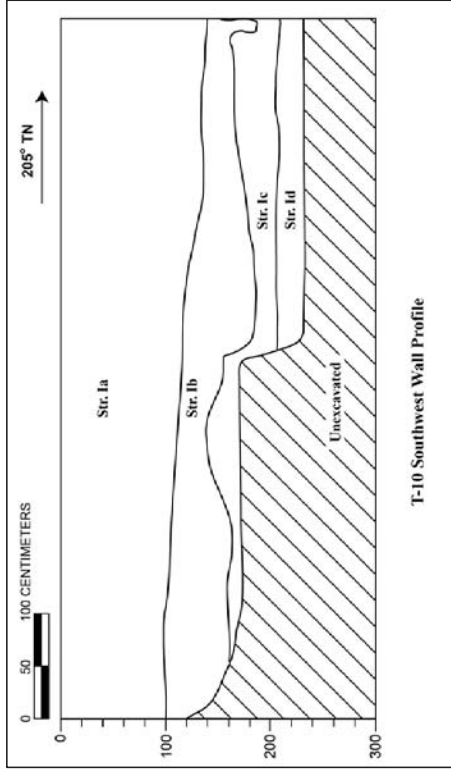


Figure 66. Profile drawing of T-10 southwest sidewall

Table 11. Stratigraphic Description of T-10

Stratum	Depth (cmbs)	Description of Sediment
Ia	0-140	Fill; 10YR 4/3, brown; cobbly loamy sand; weak, fine, granular structure; moist, friable consistency; no cementation; non-plastic; mixed origin; clear, smooth lower boundary; few, fine to medium roots; very organic
Ib	100-190	Hydraulic Fill; 10YR 8/2, very pale brown; sand; weak, very fine, granular structure; moist, friable consistency; no cementation; non-plastic; marine origin; clear, smooth lower boundary
Ic	135-205	Hydraulic Fill; GLEY 10Y 1 6/1, greenish gray; silty clay loam; moderate, medium, granular structure; moist, extremely firm consistency; no cementation; plastic; marine origin; clear, smooth lower boundary
Id	205-230 (BOE)	Hydraulic Fill; GLEY 10Y 1 8/1, light greenish gray; sandy loam; weak, fine, granular structure; moist, friable consistency; no cementation; non-plastic; marine origin; lower boundary not visible

4.2.11 Test Excavation T-11

T-11 was located in a field within the middle of the east quadrant of Parcel B running perpendicular near the Sand Island access road (see Figure 7). T-11 measured 6.5 m long by 0.80 m wide and was oriented at 225° in a southwest-northeast direction. The test excavation was excavated to 2.7 m below surface in the southwestern half of the excavation and to 1.75 m below surface in the northeastern half. The water table was observed at 2.55 m below surface. The stratigraphic profile of T-11 consists of fine, loamy sand fill (Stratum Ia), overlying fill of cobbly crushed coral and sandy loam fill (Stratum Ib), hydraulic pump-dredged loamy sand fill (Stratum Ic), and hydraulic pump-dredged silty clay loam fill (Stratum Id). Stratum Id includes the water table surface and extends to the base of excavation (Figure 67, Figure 68, Figure 69, Figure 70, and Table 12). No artifacts or cultural resources of any form were observed within T-11.



Figure 67. T-11 southeast sidewall profile, view to southeast



Figure 69. T-11 southeast sidewall profile, view to south



Figure 68. T-11 base of excavation, southeast sidewall profile, oblique view to east



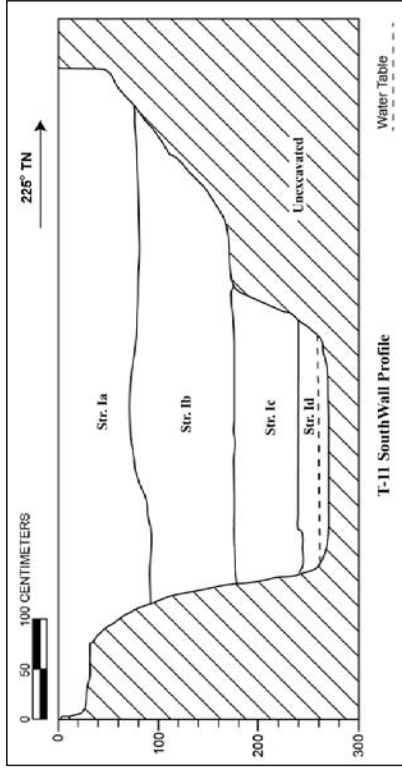


Figure 70. Profile drawing of T-11 south sidewall

Table 12. Stratigraphic Description of T-11

Stratum	Depth (cmbs)	Description of Sediment
Ia	0-90	Fill; 10YR 4/4, dark yellowish brown; loamy sand; weak, fine, granular structure; moist, friable consistency; no cementation; non-plastic; mixed origin; clear, smooth lower boundary; common, fine to medium roots; very organic
Ib	70-185	Crushed Coral Fill; 10YR 6/4, light yellowish brown; cobbly sandy loam; weak, fine, granular structure; moist, friable consistency; no cementation; non-plastic; marine origin; clear, smooth lower boundary
Ic	85-240	Hydraulic Fill; 10YR 8/2, very pale brown; loamy sand; weak, fine, granular structure; moist, friable consistency; no cementation; non-plastic; marine origin; clear, smooth lower boundary
Id	240-270 (BOE)	Hydraulic Fill; GLEY 1 8/1 5GY, light greenish gray; silty clay loam; moderate, fine, granular structure; moist, friable consistency; no cementation; non-plastic; marine origin; lower boundary not visible

## Section 5 Artifact Analysis

Six artifacts were collected from subsurface testing of Parcel B within the project area. Artifacts observed but not collected during underwater survey of Easement 1 include metal piping, steel grates, and a concrete block. Artifacts observed during subsurface testing of Parcel B but not collected include a metal cable fragment, a PVC pipe fragment, and carpet strands. All observed artifacts are historic and none of them are deemed traditional; two glass bottles (Acc. # 1 and Acc. # 2), a playing card (Acc. # 3), a clay brick (Acc. # 4), a steel hook and loop (Acc. # 5), and an unidentified metal object (Acc. # 6). These artifacts are summarized in Table 13 and can be seen in Figure 71 through Figure 82. While the items are all dated to the historic period, they could not be assigned specific dates. Additional material such as metal rebar and rubber radial tire remnants were noted but not collected.

A small clear glass bottle (Acc. #1) (Figure 71 and Figure 72) was recovered from 0-200 cm below the surface in T-7, measuring 13.0 by 6.0 cm. The artifact includes a screw top rim and appears to have been made in a poured mold with a base that is ringed with 1.0 mm nested ridges. The basal inscriptions on Acc. # 1 are "W-11" and "8 = 79."

A small clear glass bottle (Acc. # 2) (Figure 73 and Figure 74) was recovered from 0-200 cm below the surface in T-7. Acc. # 2 includes a 2.0-mm shelved rim, possibly indicating a stopper cork. Acc. # 2 appears to have been made in a poured mold with basal inscriptions reading "BOTTLE MADE IN JAPAN" "71" "2." In the center of the base is a circled "G."

A crumpled seven of spades playing card (Acc. # 3) (Figure 75 and Figure 76) was recovered from 0-200 cm below the surface in T-7. Acc. # 3 includes a metal fastener, perhaps a decayed fishing weight, attached to yarn at one corner of the card. An oxidized stain and 2.0-mm bite out of the card opposite the attached fastener and yarn indicates another similar attachment was once present.

A brick fragment (Acc. # 4) (Figure 77 and Figure 78) was recovered from 0-105 cm below the surface in T-9. Acc. # 4 measures 12.0 by 9.5 by 6.5 cm and includes adhering white mortar on flat surfaces which appear to indicate the mold in which it was made. Fractured surfaces reveal the brick matrix including basalt fragments up to 3.0 mm and the adhering mortar includes fragments of basalt and coral up to 1.0 mm.

A steel hook and chain loop link (Acc. # 5) (Figure 79) was recovered from 0-105 cm below the surface in T-9. While its function remains unknown, its form suggests its likely use for heavy machinery.

An unidentified steel artifact, possibly a fencepost cap, a boat hitch tethering post, a wench cap or an attachment for hitching machines together (Acc. # 6) (Figure 80, Figure 81, Figure 82, and Figure 83), was recovered from 0-90 cm below the surface in T-8. Measuring 28 by 23 cm and weighing 12.25 kg (432 ounces or 27 pounds), Acc. # 6 includes two ring loops that could have been used to guide and coil rope or cable around the body of this object. The artifact is hollow, indicating its use as an attachment to some form of post and also includes a perforated and pointed top, perhaps suggesting the location of the rope or cable terminus or perhaps this is where a handle or crank could have been attached.



Table 13. Summary of Artifacts Collected from subsurface testing within the project area

Acc. No.	Trench	Str.	Depth (cmbs)	Artifact Type	Portion	Size (cm)	Description
1	T-7	Ia-Ib	0-200	Glass bottle	Complete	13.0 by 6.0	Small clear glass bottle with screw-top lid; appears to be poured mold with base ringed with 1.0 mm nested ridges; basal inscriptions: "W-11" and "8 = 79"
2	T-7	Ia-Ib	0-200	Glass bottle	Complete	8.5 by 4.0	Small clear glass bottle with 2.0 mm shelved rim, possibly indicating a stopper cork; appears to be poured mold with basal inscriptions reading "BOTTLE MADE IN JAPAN" "71" "2"; circled "C" in center of base
3	T-7	Ia-Ib	0-200	Playing card	Complete	9.0 by 5.5	Seven of spades with metal fastener, perhaps a decayed fishing weight attached to yarn at one corner of card; oxidized stain and 2.0 mm bite out of card opposite attached fastener and yarn indicates another similar attachment was once present
4	T-9	Ia	0-105	Brick	Fragment	12.0 by 9.5 by 6.5	Red brick fragment with adhering white mortar; brick matrix includes basalt fragments up to 3.0 mm and adhering mortar includes fragment of basalt and coral up to 1.0 mm
5	T-8	Ia	0-90	Hook	Complete	60.0 by 10.0	Steel hook and chain loop link, likely for heavy machinery

Acc. No.	Trench	Str.	Depth (cmbs)	Artifact Type	Portion	Size (cm)	Description
6	T-8	Ia	0-90	Unidentified	Complete	28 by 23	Unidentified artifact includes two ring loops that could have been used to guide and coil rope or cable around the body of this object; artifact is hollow, indicating use as an attachment to some form of post and also includes a perforated and pointed top, perhaps suggesting location of rope or cable terminus or perhaps where a handle or crank could have been attached



Figure 71. Acc. # 1, glass bottle recovered from Stratum Ia-Ib (0-200 cmbs) in T-7, profile view



Figure 72. Acc. # 1, glass bottle recovered from Stratum Ia-Ib (0-200 cmbs) in T-7, basal view



Figure 73. Acc. # 2, glass bottle recovered from Stratum Ia-Ib (0-200 cmbs) in T-7, profile view



Figure 74. Acc. # 2, glass bottle recovered from Stratum Ia-Ib (0-200 cmbs) in T-7, basal view



Figure 75. Acc. # 3, playing card recovered from Stratum Ia-1b (0-200 cmb) in T-7, dorsal view



Figure 76. Acc. # 3, playing card recovered from Stratum Ia-1b in T-7 (0-200 cmb), ventral view



Figure 77. Acc. # 4, clay brick recovered from Stratum Ia (0-105 cmb) in T-9



Figure 78. Acc. # 4, clay brick recovered from Stratum Ia (0-105 cmb) in T-9





Figure 79. Acc. # 5, steel hook and observed Stratum Ia (0-90 cmbs) in T-8



Figure 80. Acc. # 6 recovered from Stratum Ia (0-90 cmbs) in T-8



Figure 81. Acc. # 6 recovered from Stratum Ia (0-90 cmbs) in T-8, side view



Figure 82. Acc. # 6 recovered from Stratum Ia (0-90 cmbs) in T-8, basal view

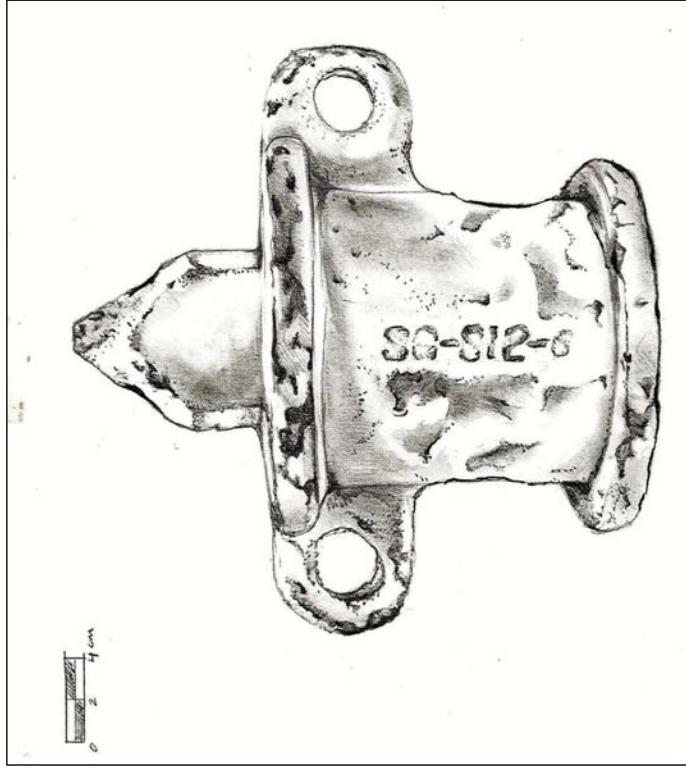


Figure 83. Acc. # 6, from Stratum Ia (0-90 cmbs) in T-8, illustrated side view, noting inscription (illustration by Megan Hawkins)



## Section 6 Consultation

Consultation included a meeting at Sand Island, at the beach park across the dredged sea plane runway channel from the current houses on Mokauea Island, on 30 December 2014 between Kēhaulani Kupihea, Joni Bagood, and Richard Stark to discuss local traditionally named places, traditional uses of the Mokauea Fishery, the history of Mokauea Island, including the dredging and evictions as well as ongoing educational programs on Mokauea Island. Kēhaulani Kupihea shared a power point she has used as an introduction to educational programs on Mokauea Island and generously offered to share images that she has collected and created for educational programs through the Mokauea Fishermen's Association. Joni Bagood, a resident of Mokauea Island since 1979, discussed struggles with self-determination in living on Mokauea Island and concerns regarding their ongoing lease with the DLNR that expires in 2043.

Kēhaulani Kupihea and Joni Bagood collectively expressed a desire to have the community enhance its use of the Mokauea Fishpond, to expand the educational footprint of the Mokauea Fishery and for the Mokauea Fishery to become listed on the Hawai'i State Register of Historic Places. Their expressed desire is to further develop the Kai Makana nonprofit educational center on the remaining portion of Mokauea Island and thereby expand their mission.

## Section 7 Summary and Interpretation

CSH completed this archaeological assessment (AA) for the School of Ocean and Earth Science and Technology (SOEST) Facility at Sand Island and Floating Dock at the Marine Education Training Center (METC) under archaeological permit number I4-04, issued by SHPD per HAR §13-13-282. This report and the research and fieldwork it represents was undertaken to mitigate the potential impacts on cultural resources within the project area due to planned grading and paving of about half of Parcel B, fencing it in and putting in security lighting. CSH completed the fieldwork component of this AA between 25 November 2014 and 28 November 2014 by CSH archaeologists Scott A. Belluomini, B.A., Layne Krause B.A., and Richard Stark, Ph.D. under the general supervision of project manager David Shideler, M.A. and principal investigator Hallett Hammatt, Ph.D. Archaeological fieldwork for this project required approximately 10 person-days to complete. In general, fieldwork included 100% pedestrian and underwater inspections of the project area and subsurface testing including 11 backhoe-assisted test excavations. Prior to subsurface testing, a thorough pedestrian inspection of the open and non-built areas within the project area was undertaken for the purpose of identification and documentation of any surface cultural properties and to locate any utilities requiring avoidance. The portion of the project area that is under water was surveyed as an archaeological dive.

Background research indicates the project area is located within the traditional boundaries of the Mokauea Fishery. Maps indicate a portion of Mokauea Island existed within the project area prior to and in the early part of the twentieth century. Subsurface testing for the presence /absence of natural sediments deposited on Mokauea Island determined that a relic portion of natural sediments does exist at least 140 cmbs in the southwest portion of Parcel B. That said, no artifacts were recovered from these natural sediments and previous archaeological research within the immediate vicinity of the project area indicate that relic archaeological surfaces from within the project area have been highly altered or destroyed mechanically with the historical development of the area. Historic fill deposits were predicted to and did dominate subterranean stratigraphy. CSH archaeologists observed a generally similar pattern of stratigraphic sequences of historic fills. Test excavations 4, 5 and 7 (T-4, T-5 and T-7), all within the southwest corner of Parcel B of the project area, are the only trenches in which natural sediments are encountered. T-7, T-8, and T-9 are the only trenches in which artifacts were observed. No artifacts were observed in context with natural sediments; all observed artifacts are historic and none of them are deemed traditional. Six artifacts were collected from within the project area. These artifacts include items that may be expected to be mixed in with historic fills from Sand Island, including two glass bottles, a playing card, an unidentified steel object, a steel hook and loop, and a clay brick.

CSH's project specific effect recommendation is "no historic properties affected." A few historic artifacts were observed but were not concentrated and are not intrinsically associated with any new historic property. No discrete cultural layers or pit features were observed. That said, as the project area includes primarily secondarily deposited artifacts in historic fills, one value in this report, and one potential effect, may be in its relation to the Mokauea Fishery in general and specifically in consideration of the plea during consultation (Section 6) for listing on the Hawai'i State Register of Historic Places as described under HAR §13-198-8.

## Section 8 Significance Assessments

CSH recommends that the circumstance of the few artifacts recovered from within the project area do not constitute a historic property and that hence no new historic properties were identified within the current project area. A determination of "No historic properties affected" and no further archaeological work is recommended for the project area. These recommendations are included in this AA for the review and concurrence of the SHPD.

## Section 9 Project Effect and Mitigation Recommendations

### 9.1 Project Effect

As no new historic properties were identified within the current project area, the proposed improvements on Sand Island will not, in our estimation, adversely impact any historic properties. This "no historic properties affected" designation does take into consideration the fact that the project area exists within the historic Honolulu Harbor as well as the fact that historic maps place the original location of Mokauea Island within Parcel B of the project area.

That said, as the archaeological investigation within the project area revealed artifacts only secondarily deposited artifacts in historic fills, one potential effect may be in its relation to the Mokauea Fishery in general and specifically in consideration of the plea during consultation (Section 6) for listing the Mokauea Fishery on the Hawai'i State Register of Historic Places as described under HAR §13-198-8.

### 9.2 Mitigation Recommendations

No new historic properties were identified within the current project area, due to the following facts: 1) no discrete cultural layers were observed, 2) all of the artifacts collected represent isolates and were secondarily deposited, and 3) no archaeological features were observed. That said, this work is significant in that it does enhance our understanding of Honolulu Harbor, the history of Mokauea Island and the Mokauea Fishery.

As no historic properties were identified within the project area, this investigation is termed an archaeological assessment, per HAR §13-13-75-5(b)(5)(A): "Results of the survey shall be reported either through an archaeological assessment, if no sites were found, or an archaeological survey report which meets the minimum standards set forth in chapter 13-276."

With very few and isolated historic artifacts, no discrete cultural layers, no human nor any faunal remains, no archaeological features, nor in situ artifact suites, and no new historic properties found within the current project area, CSH is inclined to recommend no further archaeological work for this project.

## Section 10 References Cited

- Alexander, W.D.**  
1908 Early Improvements in Honolulu Harbor. In *Hawaiian Historical Society Report for the Year 1907*. Hawaiian Gazette Company, Honolulu.
- Athens, J. Stephen and Jerome V. Ward**  
1997 *Lilaha Paleoenvironmental Study, Honolulu, Hawaii*. International Archaeological Research Institute, Inc., Honolulu.
- 2002 Paleoenvironmental Study of Auiki and Ananoho Fishponds Kalihī Kai, Honolulu, O'ahu. International Archaeological Research Institute, Inc., Honolulu.
- 2007 Anaho Fishpond, Kalihī Kai, Honolulu, O'ahu: Paleoenvironmental Study TMK [1] 1-2-025:011. International Archaeological Research Institute, Inc., Honolulu.
- Barrère, Dorothy B.**  
n.d. The King's Mahele: The Awardees and Their Lands. Unpublished manuscript.
- Beckwith, Martha**  
1970 *Hawaiian Mythology*. University of Hawaii Press, Honolulu.
- Beecher, Edward D.**  
1991 *Honolulu: Crossroads of the Pacific*. University of South Carolina Press, Columbia, South Carolina.
- Bushnell, K.W. and Hallett H. Hammatt**  
2002 *Cultural Impact Assessment of the Proposed Middle Street Transit Center, Kalihī Ahupua'a, Kona District, O'ahu (TMK: 1-2-18:1,2,3, 8, 9, 10)*. Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- Chiogioji, Rodney and Hallett H. Hammatt**  
1995 An Archaeological Assessment of the Hart Street 3 Wastewater Pump Station Force Main Replacement Project at Honolulu Harbor and Sand Island, Island of O'ahu. Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- Cobb, John N.**  
1905 *The Commercial Fisheries of the Hawaiian Islands in 1903*. U.S. Bureau of Fisheries. Doc. No. 590. U.S. Government Printing Office, Washington, D.C.
- CSX World Terminals Consulting**  
2001 Final Environmental Assessment for Stevedore Driveway Access and Parking Lot at Sand Island, Honolulu, Oahu, Hawai'i. Job H.C. 10096, 26 November 2001.
- Emerson, Nathaniel B.**  
1915 *Pele and Hi'ikaika: A Myth from Hawaii*. Honolulu Star-Bulletin Ltd., Honolulu.
- Foote, Donald E., Elmer L. Hill, Sakuchi Nakamura, and Floyd Stephens**  
1972 *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii*. U.S. Department of Agriculture, Soil Conservation Service, in cooperation with the University of Hawai'i Agricultural Experiment Station. U.S. Government Printing Office, Washington, D.C.

- Fornander, Abraham**  
1878-1885 *The Polynesian Race*, 3 volumes. London.
- Giambelluca, T., M. Nullet, and T. Schroeder**  
1986 *Rainfall Atlas of Hawaii Report R76*. State of Hawai'i, Department of Land and Natural Resources, Division of Water and Land Development, Honolulu.
- Google Earth**  
2013 Aerial photographs of Hawai'i. Google Inc., Mountain View, California. Available online at [www.google.com/earth.html](http://www.google.com/earth.html).
- Gonser, James**  
2001 Long-thorned kiawe on agriculture hit list. *Honolulu Advertiser*, 8 January 2001. Available online at <http://the.honoluluadvertiser.com/2001/Jan/08/18localthews17.html> (accessed 15 December 2014).
- Greer, Richard A.**  
1969 The Founding of The Queen's Hospital. *Hawaiian Journal of History* 3:110-145.
- Hammatt, Hallett H.**  
1986 Archaeological Reconnaissance of TMK: [1] 1-2-24:Por.36, Por. 37, Parcels on Sand Island proposed for U.S. Postal Service Use. Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- Hammatt, Hallett H. and David W. Shideler**  
2007 A Cultural Impact Evaluation, Archaeological Literature Review and Field Inspection for the Development of a Small Shipyard at Ke'ehi Lagoon Small Boat Harbor, Kalihī Kai, Kona, O'ahu TMK: [1] 1-2-025:024. Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- Hawai'i State Archives**  
1924 Photograph of Honolulu Harbor. Digital Collection, Hawai'i State Archives, Honolulu.
- 1920-1930 Photograph of Honolulu Harbor. Digital Collection, Hawai'i State Archives, Honolulu.
- 1930 Photograph of Honolulu Harbor. Digital Collection, Hawai'i State Archives, Honolulu.
- 1941 Photograph of Honolulu and Mokuauia Fishery. Digital Collection, Hawai'i State Archives, Honolulu.
- Hawai'i TMK Service**  
2014 Tax Map Key [1] 1-5-041. Hawai'i TMK Service, Honolulu.
- Hazlett, Alexander, Shawn Fehrenbach, and Hallett Hammatt**  
2008 Archaeological Monitoring Report for a 12-Inch and 16-Inch Water Main Installation Project on Aloha Tower Drive, Nimitz Highway, and Richards Street (Job 04-024), Honolulu Ahupua'a, Honolulu District, O'ahu Island. Tax Map Key (TMK): [1] 2-1-014 & [1] 2-1-027. Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.

- Hungerford, John B.**  
1963 *Hawaiian Railroads: a memoir of the common carriers of the fiftieth state.* Hungerford Press, Reseda, California.
- Hunkin, Nifae Douglas Borthwick, and Hallett H. Hammatt**  
2012 Archaeological Monitoring Report for Phase I Kalihī/Nu'uauu Sewer Rehabilitation Project, Kalihī, Kapālama, Nu'uauu, Pauoa, and Makiki Ahupua'a, Honolulu District, Island of O'ahu (TMK: [1] 1-2-001 to 003, -009 to -011; 1-3-001, -003 to -005, 007 to -012, -015, -016, -018, -019, -021; 1-6-009 to -011; 1-7-009 to -011, -014 to -017, -019, -020, -023, -032, -033, -036; 1-8-004, -012 to -015; 2-2-001, -003 to -007, -009, -010, -013, -014, -019, -024). Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- ‘Ī, John Papa**  
1959 *Fragments of Hawaiian History.* Bishop Museum Special Publication 70. Bishop Museum Press, Honolulu.
- Johnson, Rubellite Kawena and John Kaipo Mahelona**  
1975 *Nā Inoa Hōkū, A Catalogue of Hawaiian and Pacific Star Names.* Topgallant Publishing Company, Honolulu.
- Jourdane, Elaine and Thomas Dye**  
2006 Archaeological Assessment for the Proposed Nextel Partners Sand Island Crown Castle Site, 1092, Makepono Street, Honolulu, Kona, O'ahu Island TMK: [1] 1-5-41:341 por. T.S. Dye & Colleagues, Archaeologists, Inc. Honolulu.
- Kai Makana**  
2015 *Ocean Education through Action. Mokauea History and Historic Canoe Restoration and Halau Construction.* Electronic document, <http://www.kaimakana.org/mirp.htm#historic> (accessed 8 January 2015).
- Kamakau, Samuel Manakalani**  
1865 Instructions in Ancient Hawaiian Astronomy. *Nupepa Kuokoa* 5 August.
- 1961 *Ruling Chiefs of Hawaii.* Kamehameha Schools Press, Honolulu.
- Kame‘elehiwa, Lilitkala**  
1992 *Native Land and Foreign Desires: Pehea Lā E Pono Ai?* Bishop Museum Press: Honolulu.
- Kelsey, Theodore**  
n.d. Photograph of David Malo Kupihea. Hawaiian Historical Society, Honolulu.
- Kikuchi, William**  
1976 Prehistoric Hawaiian Fishponds. *Science* 193:295-299.
- Landrum, Jim and Paul Christian Klieger**  
1991 *Historical Literature and Document Search for the City and County of Honolulu, Department of Transportation Services, Bus Unit Repair Shop Facility, Kalihī, O'ahu, Hawai'i.* TMK: 1-2-16:7. Public Archaeology Section, Applied Research Group, Bernice Pauahi Bishop Museum, Honolulu.

- Lyons, C.J.**  
1886 Map of Reef Titles of Kalihī. Registered Map 1472. Hawai'i Land Survey Division, Department of Accounting and General Services, Honolulu.
- Malo, David**  
1951 *Hawaiian Antiquities.* Bishop Museum, Honolulu.
- Maly, Kepa and Onaona Maly**  
2003 *Volume I, Ka Hana Lanai 'a Me Nā Ko 'a O Na Kai 'Ewala: A History of Fishing Practices and Marine Fisheries of the Hawaiian Islands.* Kumu Pono Associates, Hilo, Hawai'i.
- Mana**  
2015 *Mokauea Lives and Breathes.* Electronic document, <http://www.welivemana.com/articles/mokauea-lives-and-breathes> (accessed 14 January 2015).
- McAllister, J. Gilbert**  
1933 *Archaeology of Oahu.* Bishop Museum Bulletin 104. Bernice Pauahi Bishop Museum, Honolulu.
- McGerty, Leann, Michael F. Dega, and Robert L. Spear**  
1997 *Archaeological Excavations at Kiwili Fishpond, Site of the Proposed Liliha Civic Center - Kalihī-Pālama, O'ahu Hawaii.* Scientific Consultant Service Inc., Honolulu.
- McIntosh, James and Paul L. Cleghorn**  
2000 Archaeological Report for the Oahu Commercial Harbors 2020 Master Plan-Immediate Phase Environmental Impact Statement. Pacific Legacy, Inc., Kailua, Hawai'i.
- Monsarrat, M.D.**  
1913 Map of Oahu Fisheries, Honolulu Section. Map by M.D. Monsarrat. Registered Map 2848. Hawai'i Land Survey Division, Department of Accounting and General Services, Honolulu.
- Moore, James R.**  
1997 *The Inadvertent Burial discovered at Pier 40 in Kapalama, Ahupua'a, Kona District, Oahu, (TMK 1-5-32:05).* Letter Report to Sara Collins, Ph.D., O'ahu Island Archaeologist, Department of Land and Natural Resources State Historic Preservation Division. Archaeological Consultants of the Pacific, Inc., Hale'iwa, Hawai'i.
- Moore, James R., Amy Bevan, and Joseph Kennedy**  
2004 An Archaeological Inventory Survey Report for a Property Located at TMK [1] 1-2-21:13 in Kalihī Ahupua'a, Kona District, Island of O'ahu. Archaeological Consultants of the Pacific, Inc. Hale'iwa, Hawai'i.
- Moore, James and Joseph Kennedy**  
1999 Final The Archaeological Treatment of the Inadvertent Discovery of a Human Burial at Pier 40, TMK: [1] 1-5-32:2, Kapalama Ahupua'a, Kona District, Island of Oahu. Archaeological Consultants of the Pacific, Inc., Hale'iwa, Hawai'i.

- Napoka (Oppenheimer), Nathan**  
 1976 *Mokuaea Island, A Historical Study*. Historic Preservation Office, Division of State Parks, Outdoor Recreation and Historic Sites. Department of Land and Natural Resources.
- Oahu Commercial Harbors 2020 Master Plan**  
 1997 Prepared by Hawaii State Department of Transportation Harbors Division, Honolulu, Hawaii. Website at [www.state.hi.us/dot/harbors](http://www.state.hi.us/dot/harbors). Electronic document, <http://hidot.hawaii.gov/harbors/files/2013/01/Oahu-2020-Master-Plan.pdf> (accessed 24 November 2014).
- O'Hare, Constance R., David W. Shideler, and Hallett H. Hammatt**  
 2007 *Kalihi-Kapālama Portion of the Kalihi/Nu'uana Sewer Rehabilitation Project Field Inspection and Literature Review Report, Kalihi & Kapālama Ahupua'a, Kona District, O'ahu*. Cultural Surveys Hawaii '1, Inc., Kailua, Hawaii '1.
- 2013 *Archaeological Literature Review and Field Inspection for the Pier 12 and Pier 15 Improvement Project, Honolulu Harbor, Honolulu Ahupua'a, Honolulu District, Island of O'ahu*. TMK: [1] 2-1-001:043, 044, 045, 055, 056. Cultural Surveys Hawaii '1, Inc., Kailua, Hawaii '1.
- Pukui, Mary Kawena, and Samuel H. Elbert**  
 1986 *Hawaiian Dictionary*. Second edition. University of Hawaii Press, Honolulu.
- Pukui, Mary K., Samuel H. Elbert, and Esther Mookini**  
 1974 *Place Names of Hawaii*. University of Hawaii Press, Honolulu.
- Remard, Gene**  
 1975 A History of Sand Island, Oahu, Hawaii (1825-1966). Appendix A in *Report on the Sand Island Reclamation Area*. Department of Land and Natural Resources, Division of State Parks, Honolulu.
- Smith, Helen Wong and Paul H. Rosendahl**  
 1990 *Aloha Tower Complex Historical Assessment, Honolulu Harbor, Island of Oahu, TMK 2-1-01*. Paul H., Rosendahl, Inc., Hilo, Hawaii '1.
- Sterling, Elspeth P. and Catherine C. Summers**  
 1978 *Sites of Oahu*. Bishop Museum Press, Honolulu.
- Stimson, J. Frank and Donald Stanley**  
 1964 *A Dictionary of Some Tuamotuan Dialects of the Polynesian Language*. Springer Netherlands, The Hague, Netherlands.
- Thrum, Thomas G.**  
 1898 Hawaiian Almanac and Annual for 1898. Thos G. Thrum, Honolulu.  
 1998 *Hawaiian Folk Tales: A Collection of Native Legends*. Mutual Publishing, Honolulu.
- UH SOEST**  
 1952 UH SOEST Sand Island coast aerial photograph. University of Hawai'i at Mānoa School of Ocean and Earth Science and Technology-Coastal Geology Group. Online at <http://soest.hawaii.edu/coastal/webftp/Oahu/mosaics/>

- U.S. Army War Department**  
 1919 U.S. Army War Department Fire Control Map, Honolulu Quadrangle. USGS Information Services, Denver, Colorado.  
 1943 U.S. Army War Department Terrain Map, Honolulu Quadrangle. USGS Information Services, Denver, Colorado.
- U.S. Department of Agriculture (USDA)**  
 2001 Soil Survey Geographic (SSURGO) database. U.S. Department of Agriculture, Natural Resources Conservation Service, Fort Worth, Texas. <http://www.negc.nrcs.usda.gov/products/datasets/ssurgo/> (accessed March 2005).
- U.S. Geological Survey**  
 1998 Honolulu USGS Survey 7.5-Minute Series Topographic Quadrangle. USGS Information Services, Denver, Colorado.  
 1969 Honolulu USGS Survey 7.5-Minute Series Topographic Quadrangle. USGS Information Services, Denver, Colorado.  
 1953 Honolulu USGS Survey 7.5-Minute Series Topographic Quadrangle. USGS Information Services, Denver, Colorado.  
 1978 Orthophotoquad Aerial Photograph, Honolulu Quadrangle. USGS Information Services, Denver, Colorado.
- Van Hoften, Ellen**  
 1970 *History of the Honolulu Engineer District, 1905-1965*. Fort Armstrong, Honolulu: U.S. Army Engineer District, Honolulu.
- Waiihona 'Aina**  
 2000 *The Māhele Database*. Electronic document, <http://waiihona.com> (accessed 14 January 2015).
- Westervelt, William D.**  
 1915 *Legends of Old Honolulu*. Collected and translated from the Hawaiian by W.D. Westervelt. George H. Ellis Company, Boston.  
 1923 *Hawaiian Historical Legends*. Fleming H. Revell Company, New York.
- Wong Smith, Helen and Paul Rosendahl**  
 1990 *Aloha Tower Complex Historical Assessment, Honolulu Harbor, Island of O'ahu, TMK 2-1-01*. Paul H. Rosendahl, Inc., Hilo, Hawaii '1.



## Appendix A *Ipu Ho 'okele Wa'a: Navigation Gourd Notes*

What follows is the partial text of Theodore Kelsey's "Navigation Gourd Notes," compiled about 1950, including the testimony of David Malo Kupihea concerning the use and design of the traditional Hawaiian navigational gourd (Johnson and Mahelona 1975:142-149).

Navigation Gourd Notes, Statement of David Malo Kupihea, of Kalihiki-kai, Oahu. Mr. Kupihea is a relative of the noted historian David Malo. Kupihea's grandfather, Holowai, was *konohiki nui* o Kiholo, Kona, Hawai'i, under Kings Kalaniopou and Kamehameha I. Holowai's father was Hiapo, *konohiki nui* under King Kalanipou. He was the chief who stripped the bones of Captain Cook. The father of Hiapo was Kaitikini (*inoa kapakapa*) who was also known by the name Ahukini, as a demigod.

Ka-haka 'aulana, or "Sand Island", in Kalihiki Basin, Honolulu, once the beach residence of King Kamehameha III, was the home of head-fishermen. On this island lived He'u, head-fisherman of O'ahu under Kings Kamehameha V and V, and an old man named Noa, who had charge of the fishing kōla on the Kona side. Back in 1879 and 1880 these old men used navigation gourds for trips to Kuai-he-lani, which they told me, included Nihoa, Necker, and the islets beyond. When about ten years old I saw perhaps seven or eight such gourds on the island.

The old men might be gone on their trips six months at a time—though from May to August was the special sailing season. They fished for 'opelu and *aka*, attracting some back to Kona, Hawai'i, and Kona, O'ahu, perhaps by a *Ki-u-ia*, or stone fish-god. *Oahi* was a stone used to attract 'opelu. Thus fish were brought to the *kōla* at home.

Such gourd was partly filled with water to catch the reflection of the stars when two sight-holes on opposite sides were in line with the North Star—thus setting the "needle" of the Hawaiian compass. The reflections of other guiding stars, such as the morning and evening stars, Dippers, and the Galaxy, would now be in correct position.

The gourd might be hung up on the mast, or elsewhere when not in use. In a single canoe it might be fastened to the covering piece over the bow (the *kuapoli*) by placing over it a calabash-net with meshes about 1/2, 3/4, or one inch wide, and tacking down the extending cords around it. The man in the bow would then be the *kilo*, or observer to use the instrument. On a double-canoe the extending cords of the inverted calabash-net could be tacked down to the *po'a*, or raised platform of light poles bound together—*ilihiki* was best; *ohai*, *lama*, and *ahakea* were also good—in a position between the mast and steersman.

For close observation the drawing-cord in the bottom of the *koko* was drawn tightly over the mouth of the gourd. When not needed, the drawing cord could be slackened, leaving just a fringe of net over the edges of the gourd to hold it down. The gourd

could be sighted at the North Star by turning it while under the net. At intervals of forty-five degrees were double hitches called *pu'u mana* in the mesh at the circumference of the gourd, with a certain number of meshes from point to point. A special term was used to designate each mesh and *pu'u* at the circumference. *Pu'u mana* were made so made in the part of the net covering the mouth of the gourd, in order to mark the position of certain stars.

A navigation gourd might be from 1 and 1/2 feet to 3 feet in diameter, and 4 to .6 or more inches deep. It might be made of any suitable wood, such as *kou* or *milo*, or be a cover (*po'i*) of a gourd made from the fruit of the bitter gourd.

Statement of Theodore Kelsey from an interview with David Malo Kupihea:

"About 1886, while King Kalakaua was king—heard first from Wai-ēa, head fisherman and acting *konohiki* of the Kamehameha Fisheries (all around were Kamehameha Fisheries)—Kamehameha I and II. Think Kamehameha III established fisheries in law form. Called Kamehameha fisheries. (Major William Moe-honua was real *konohiki*. Before that my grandfather Holo-wai, some people called him Holo-ē, and some Ka-wai-holo. He was principally temple keeper, providing fish, pork, and dog, all for ceremonies, everything—had several men, all chiefs, working for him. If no pig they had dogs, well fed on *poi*, for sacrifice. Wai-ēa was the keeper of Ka-haka-'aulana or Sand Island fishery, including the *limu* gardens of Kama'e (think named for King Kalakaua's grandmother). King Kalakaua (1874, think passed away in 1891). He had a house warming at Moku - o'e'o ('e'o, noise like an echo)—hear voice from that island, but nobody there. Was a one story house with iron roofing with large rooms—had house-warming—*ahaaina komo hale*, with about five hundred, including about 100 dignitary—all kinds of fishes, everything for *Ituu*. Wai-ēa was *konohiki* of fisheries all around, but especially Ka-haka-'aulana. I saw the calabash at Ka-haka-'aulana, in the house of Puhene, built of wood, *kōa*, and other woods of islands. Was built for Kamehameha I—he didn't have a chance to live there. Puhene house-keeper for Kamehameha III who occasionally came there for two or three weeks. Puhene's own house was right *māka'i* side of Allen, who was the owner of the old Royal Honolulu Hotel on Alakea Street and part-owner of Waimanalo plantation. House of Kauikesouli (Kamehameha III) was given to Puhene by Kamehameha III because she took care of it. She had her other house *māka'i* of Allens where Honolulu salt was made, and she took care of that—salt ponds *mauka* side of the fishpond of 'Apili [was the daughter of Kupa-nihii] between Nuuanu and Kalhi. He was chief of the *menehunes* who lived in Waolani, Nuuanu, and Kalihiki. Mostly *menehunes* then, but were old chiefs down on the flats who were not *menehunes*. Some *menehunes* lived at Nana-kuli, around Pu'u-o-Kapo-lei, Waialua, Wahiaua, and Honouliuli.

Saw the gourds and calabashes of all kinds and styles, some decorated with human teeth, all lined up, put in place where easily reached, and hung from *koko* with three spears or poles as tripod—heavy ones hung that way—small ones on shelves. Some gourds on table, some in corners of house covered with *tapas* or white and red cloth and polished with dry *lau'ulu* every day—had plenty of *poi* and fish, and strong and

happy. They used a chant and Wai-‘ea explained to them in a chant about the navigation gourd—*ipu hookele waa*. Can see all principal stars, horizon all clear, at Kahaka. On clear night, see all stars. Four holes near rim, can look through. About two feet or 1 and 1/2 feet wide and about 8 inches deep (some people had deeper ones, about 2 feet deep, for near land, as in going to Maui, or Hawai‘i). Sight the pole star and place the hole that way. Hole to the east was an eastern star, they are the big stars—think those stars must be *‘iwa* birds—those appeared in mid-ocean land was nearby. Current, wind, direction of stars taken into account...Fill calabash about 3/4 full, about 2 or 3 inches below holes. Keep instrument near navigator, use sea-water. Used on the *pola*. All you have to do, sight horizon, but first look at North Star for position. Water first then sight North Star for position at horizon. Then sight star in east at same time. Holes bored about 1/2 or 1 inch below rim (not very particular)—about 3 inch diameter hole. Bright star to east—think Hoku-loa—think Sirius...Didn't set calabash on deck, but hung up in *koko*, about chin-high. *Maka-‘aha*—about 24 squares of string—*olona* cord. Checker-work meshes—think about one inch mesh. *Olona* fine thread cord. Put it right over bowl and tied up on the bottom. White netting see at night. Only used at night. Fish, currents, birds used, clouds. Think looked at position every half hour. If long distance course sight about every half hour. Shorter course sight about every quarter hour. Hawai‘i here don't have to use instrument. Had a name for every square. Reflection of stars travels in straight line through certain squares. No angular calculation like sextant. No regular star in East. East and West hole made for sighting stars...Born on Ka-haka-aulana 1872. Saw gourd many times till grandfather Wai-‘ea died when I was seven or eight... Strings—network across calabash, everything complete in one same. Were Moanalua, I think. Think Kamehameha III who lived there and got Holo there as caretaker was original owner. He owned the place and everything. I don't think Wai-‘ea owned it. He only a caretaker. I learned from them at Wai-‘ea's, especially from Wai-‘ea, the head, and most learned man. He chanted about it, and at certain sections they all chanted together. I was about seven or eight years old. I heard them explain but didn't know what chanting about, but it was about the gourd. I heard them say *ko 'i ula a Kane* (not *ko 'i ula*, not *ko 'i ula*, *ko 'i Kaha 'i*, *ko ke au*, *ko ia Kaha 'i*. *Kupihua*. *Kaha 'i Mele*. *Malu*. *He Kaha 'i*...All the meshes of the net supported by the *alithi* are *na maka 'alithi*. Think apply to latitude and longitude. *Na maka O 'alithi*. Rounding of calabash makes lines of *koko* like bending rainbow. All you do is follow... All *koko* is supported by *'alithi -- paa --* an all meshes held in place... Around the *'alithi* some made knots to indicate position of main stars, knots called *pu 'u-mana*—only around edge. *Olona* cord dyed brown with banana 'ili stain (near the roots is best—mash it up and soak 4 or 5 days). *Hili kakui* is good but harder to get. Believe 9 principal stars called *'iwa* stars (hoku *'iwa*, nine) but *hoku 'iwa*, very bright stars compared to *'iwa* birds, each represented by a *puu mana* at the edge. Could use ends of cords as compass points which could not get by naked eye. Stars come into position of *puu mana* in inner part of network to indicate other prominent stars at certain times. The gourd was of *lulu*, I was told. Other may be *koa*, about 3/4 inch thick (1/2 inch or 2, inches). About 1/2 or one

inch below rim is the *'alithi*, a reddish *'olona* cord put through the meshes and tied. It held the network on as the sides slope inward. Don't think necessary to go to Ke-ala-i-Kahiki. Go from Hawaii to Tahiti, Gilberts, or other islands in April, best time, no storms. April, May, June, best. The N.E. tradewind (from N.E.) carries you south. Ends of square possibly marked 45 degree angles from center. A *koko* held, called *amume*, of cords 1 or 2 fathoms long, so boat can toss without disturbing calabash too much... On cord put around once below edge of calabash to hold the net—work which is in squares, like net mesh, so it doesn't slip... Cord not so heavy, but tough binding cord. Perhaps about 3 dozen squares in meshwork. Akana Ka-lau-ki, a prominent Chinese in King Kalakaua's time, told me that they used a calabash compass in Canton when they went fishing—southern China, especially.

Kamakau gives directions on the use of the navigational gourd, including the following diagram:

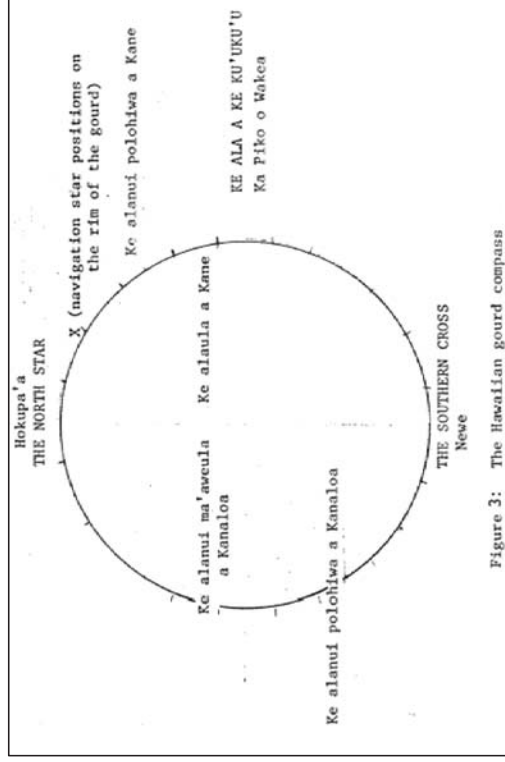
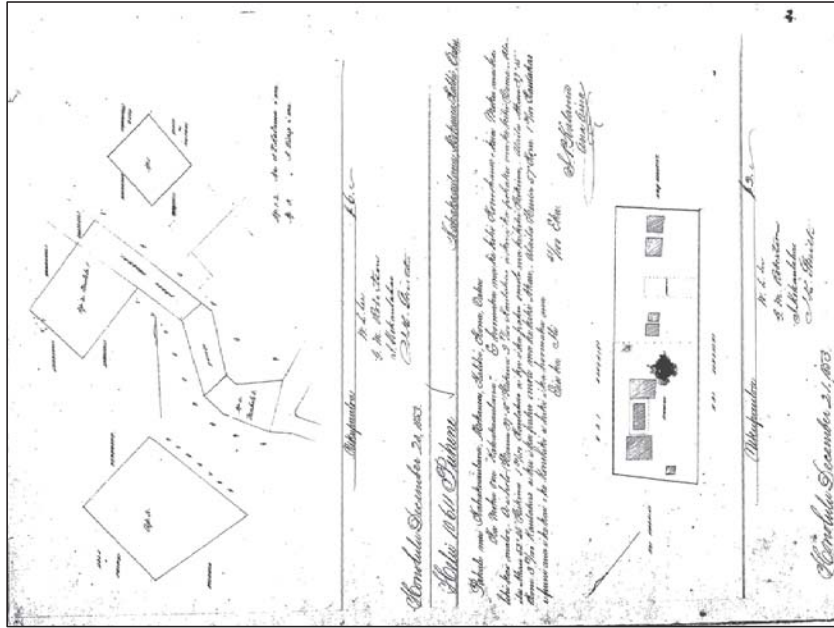


Figure 3: The Hawaiian gourd compass

Figure 84. Kamakau's illustrated guide to the Hawaiian navigational gourd (Johnson and Mahelona 1975:71, Figure 4)

## Appendix B Original LCA Claims Discussed in this Report

LCA 10611



**LCA Claim Number: 03237**, Claimant: Hewahewa, Island: Oahu, District: Kona, Koolauloa, Ewa, Ahupuaa: Kalihi, Makaua, Papaa, Ili: Kalupulu

Apana: 1 Awarded: 0, Loi: FR.; Plus: NR; 48v6, Mala Taro: FT.; Kula: NT.; House lot: RP: 6888, 6889, Kihapai/Pakanu: Number of Royal Patents: 2, Salt lands: Koele/Poalima: No, Wauke: Loko: No, Olona: Lokoia: No

To the Land Commissioners: ... Here is my claim on the Island of Hawaii: An Ahupua'a, Mahukona, and Kalaoa in Kona, Hawaii -those are the ancient claims from my makua. Kamehameha I gave them in 1782...Kalihi. The Ahupua'a of Makaua in Koolau Loa was given me by Kamehameha II. The kupono of Papaa in Ewa was given by Kamehameha III to me. My makua have lived continuously under Kamehameha I and Kamehameha II and Kamehameha III in this time of 1847. My fixed place of residence is Kalepolepo. That is my claim under the Mo'i.

**HEWAHEWA**

**LCA Claim Number: 01255**, Claimant: Waialua, Island: Oahu, District: Kona, Ahupuaa: Kalihi, Ili: Mokauea, Puuhale, Apana: 2 Awarded: 1, November 27, 1847, N.R. 41v3

Greetings to the Land Commissioner: House of the Privy Council: I hereby tell you of my claim for taro land in the 'Ili of Aki wahine, the konohiki, in Kalihi uka on Oahu, on this side of Kalihi at a place called Kaakaumuku. It is bounded on the north and east by Kaakaumuku; on the south by Kahalekai's land; on the west by Aki wahine's land. I got this land in 1820 and have held it until today. Puuhale, Kalihi, Oahu. WAIALUA

F.T. 453v2, Cl. 1255, Waialua, 1 September 1848, Kapali, sworn, This land is in Mokauea, Kalihi, in two pieces., 1 house lot with 3 houses, bounded: Mauka by Jon Ii's, Honolulu by Kaunohua's, Makai by Wm. Beckley, Ewa by John Ii's., 2. Nine kalo patches.; Mauka by Kuhaukoma's, Honolulu by Palama's, Makai by Kahalekai's, Ewa by Kaunohua's., Claimant had these land from Paki in time of Kamehameha I and has ever since held them without dispute. Aki is konohiki. Nuhii, sworn, confirmed the above testimony.

N.T. 240-241v3, No. 1255, Waialua, September 1 [1848]. Kapahi, sworn and stated, "I have seen this land at Mokauea in Kalihi, Oahu, consisting of two sections. There are three houses on the house lot; John Ii's land, mauka Kaunohua's land, Honolulu W. Beckley's land, makai, John Ii's land, Ewa. 2. Nine patches are here. Kahaukomo's land, mauka Kapalama, a land, Honolulu, Kahalekai's land, makai Kaunohua's land, Ewa. Waialua received his land from his parents during the time of Poki, but Aki was the konohiki at the time." Nuhii, sworn and stated, "I have seen this land exactly as Kapahi has stated here "[Award 1255: R.P. 5080; Kalihi Kona; 2 ap.; 1.02 Acs; Puuhale Kalihi Kona; 1 ap.; 51 Ac.]

**LCA Claim Number: 07234**, Claimant: Leonui; Island: Oahu, District: Kona, Ahupuaa: Kalihī waena, Ili: Kukahi, Apana: 1 Awardeed: 1, Loi: 4 FR.; Plus: NR: 304w5, Mala Taro: FT.; Kula: NT: 51v10

House lot: 1 RP: 3294, Kihapai/Pakamū: Number of Royal Patents: 1, Salt lands: Koele/Poalima: No Wauke: Loko: No, Olona: Lokoia: No, Noni: Fishing Rights: No, Hala: Sea/Shore/Dunes: No, Sweet Potatoes: Auwai/Ditch: Yes, Irish Potatoes: Other Edifice: No, Bananas: Spring/Well: No, Breadfruit: Pigen: No, Coconut: Road/Path: No, Coffee: Burial/Graveyard: No, Oranges: Wall/Fence: No, Bitter Melon/Gourd: Stream/Muliwai/River: No, Sugar Cane: Pali: No, Tobacco: Disease: No, Koa/Kou/Trees: Claimant Died: No, Other Plants: Other Trees: Other Mammals: No, Miscellaneous:., relinquished 5 lo'i to konohiki

To the Land Commissioners, Greetings: I, a claimant of land, hereby state that it is situated at Kukahi, an 'ili in Kalihī waena, with nine lo'i bounded on the north by a kula, on the east by the land of Kelea, on the south by a watercourse, on the west by the land of Kuapapa.

LEONU I X, his mark, February 8, 1848

**LCA Claim Number: 02038**, Claimant: Kalama, Hakaleleponi, Apana: 1 Awardeed: 1, Loi: FR.; Plus: NR: 333v3, Mala Taro: FT: 248v3, Kula: NT: 583v3, House lot: 1 RP: 7537, Kihapai/Pakamū: Number of Royal Patents: 1, Salt lands: Koele/Poalima: No, Wauke: Loko: No, Olona: Lokoia: No, Noni: Fishing Rights: No, Hala: Sea/Shore/Dunes: No, Sweet Potatoes: Auwai/Ditch: No, Irish Potatoes: Other Edifice: No, Bananas: Spring/Well: No, Breadfruit: Pigen: No, Coconut: Road/Path: No, Coffee: Burial/Graveyard: No, Oranges: Wall/Fence: No, Bitter Melon/Gourd: Stream/Muliwai/River: No, Sugar Cane: Pali: No, Tobacco: Disease: No, Koa/Kou Trees: Claimant Died: No, Other Plants: Other Trees: Other Mammals: No Miscellaneous: No, 2038, Kalama, HN.R: 333-334v3

To the Land Commissioners, Greetings: My claim to my house lot in Puuhale, makai of Kalihī, Island of Oahu, was established in the time of Kamehameha I, until the present. It is bounded on the north by the houses of Kaile, on the east by the pond, on the south and west by the sea.

CHIEFESS H. KALAMA X, Her mark, by Ohule, F.T. 248v3, Cl. 2038, H. Kalama (The Queen). Pukou, sworn, I know the land here claimed. It is a house lot with a stone fence around it, in the ili of Puuhale, Kalihī, Oahu. It has to [two] houses on it. It is bounded: Mauka by Kaunohua's land, Honolulu and Makai sides by the same, Ewa by John I's land. The claimant received it from Ohule in the year 1830, and has held it in peace, ever since. Ohule, sworn, I gave the land here claimed by the Queen to the Queen in 1830, and she has held it in peace ever since. N.T. 583v3, No. 2038, H. Kalama, January 2, 1850

Pukou, sworn, I have seen his [her] house lot at Puuhale in Kalihī, surrounded by a stone wall. Mauka, Kaunohua's land, Honolulu, the sea for Kaunohua, Makai, Kaunohua, Ewa, John I, Ohule had given him [her] his [her] house lot in the year 1830 and he [she] continuously has this land. No one has objected. Ohule, sworn, This is true that it is I who have given /land/ to H. Kalama. No one has objected. [Award 2038; R.P. 7537; Puuhale Kalihī Kona; 1 ap.; .19 Ac.]

**LCA Claim Number: 06450**: Claimant: Kaunohua, Other claimant: Moehonua, W.L., Island: Oahu, District: Kona, Ahupuaa: Kalihī, Manoa, Waikiki, Ili: Mokauea, Puulena, Kalia, Kiokapu Apana: 11 Awardeed: 1, Loi: 0 FR.; Plus: NR: 372v5, Mala Taro: 0 FT.; Kula: 0 NT: 728v3, House lot: 0 RP: 2509, 6846, 7168, 7263, 8120, Kihapai/Pakamū: 0 Number of Royal Patents: 14, Salt lands: 0 Koele/Poalima: No, Wauke: 0 Loko: No, Olona: 0 Lokoia: No, Noni: 0 Fishing Rights: No, Hala: 0 Sea/Shore/Dunes: No, Sweet Potatoes: 0 Auwai/Ditch: No, Irish Potatoes: 0 Other Edifice: No, No 6450\*O, Kaunohua, N.R. 372v5

Greetings to the Land Commissioners, William L. Lee, J.H. Smith, Z. Kauuawai and J. Ii and N. Namaau: I hereby state my claims for land from the Mo'i to be mine forever. They are as follows: Puulena 'Ili of Waikiki, Kona, Oahu, Mokauea 'Ili/, Ahupua'a of Kalihī, Kona, Oahu. Ahupua'a of Kalaupapa, Koolau, Molokai. These three lands are my claims, for your information, I am, respectfully,

L. KAUNUOHUA, Kaluaokapili, 5 February 1848

Here is this forgotten land: Kiokapu 'Ili of Waikiki, Kona, Oahu. Kindly enter to have title quieted. That is the end. N.T. 728-729v3, No. 6450, Kaunohua, January 21, 1851. He had received the following lands mentioned below from King Kamehameha III during the Mahele in 1848. The names of the lands are: Puulena, an ili in Waikiki, Kona, Oahu, Mokauea, an ili in Kalihī, Kona, Oahu, Kalaupapa Ahupuaa, Koolau, Molokai

I endorse this grant, it is good. These lands mentioned above are for Kaunohua and are approved, so they may be presented to the land officers who quiet land titles. /Signature/ Kamehameha Royal Palace, February 4, 1848. This is a true copy from the Mahele book. W. Goodale, Secretary. [Award 6450; Royal Patent 8120; Mokauea Kalihī Kona; Por. Ap. 1; 1 ap.; .78 Ac.; Royal Patent 8121; Mokauea Kalihī Kona; Por. Ap. 1; 1 ap.; .84 Ac.; Royal Patent 8122; Mokauea Kalihī Kona; Por. Ap. 1; 1 ap.; .88; Land Patent 8147; Mokauea Kalihī Kona; Por. Ap. 1; 1 ap.; .66 Ac.; Land Patent 8153; Mokauea Kalihī Kona; Por. Ap. 1; 1 ap.; 1.12. Ac.; Land Patent 8170; Mokauea Kalihī Kona; Por. Ap. 1; 2 ap.; .28 Ac.; Land Patent 8194; Mokauea Kalihī Kona; Por. Ap. 1; 1 ap.; 2.19.2 Ac.; Land Patent 8298; Mokauea Kalihī Kona; Por. Ap. 1; 1 ap.; 3.62 Ac.; Land Patent 8327; Mokauea Kalihī Kona; Por. Ap. 1; 1 ap.; 2.23 Ac.; R.P. 2509; Mokauea Kalihī Kona; Ap. 2; 1 ap.; 216 Ac.; R.P. 6846; Mokauea Kalihī Kona; ap. 3; 1 ap.; 21.81 Ac.; R.P. 7168; Mokauea Kalihī Kona; Ap. 6; 1 ap.; 110 Ac.; Land Patent 8466; Kalihī Kona.

Kaunohua for W.L. Moehonua (ap. 8); Land Patent 8307; Mokauea Kalihī Kona, 1 ap.; 58 Acres 6 chains; Ap. 9; 1 ap.; 95.36 Ac.; Kaunohua for Moehonua; R.P. 7263; Puulena Manoa Kona Ap. 2; 1 ap.; 35.4 Ac.; Land Patent 8349; Kuwili Ponds, Kalia Waikiki, Ap. 1; 1 ap.; 3.62 Ac.; no R.P. Kalia Waikiki Kona; 1 ap.; 13.7 Ac.; Land Patent 8442; Kalihī Kona; for W.L. Moehonua (ap. 4); Land Patent 8477; Mokauea Kalihī Kona; Kaunohua for Moehonua (ap. 1); Land Patent 8491; Mokauea Kalihī Kona; Kaunohua for W.L. Moehonua;(Molokai) no R.P.; Kalaupapa Koolau; 1 ap. No acreage given).



## Appendix C Consultation Interview with Kēhaulani Kupihea and Joni Bagood

Kēhaulani Kupihea:

So I start out with the Hawaiian World view and the cultural and spiritual connection to the environment... Its hard for us to see what our *ka wa kahiko* were doing when we bring our Western mind, so what I tell everyone when I do my talk is to try and leave your Western mind outside, and just come in with, try to come into the native mind, which means to be connected. We are all connected to everything, and then, if you understand that, then we can understand why our *kāpuna* did certain things, why they prayed before they did everything and anything...and why we never took ownership. They never took ownership...you know the *kūleana*, back in the Māhele, Kono'ohua owned the 'īi of Mōkauea, which is actually in my genealogy...Right now we are sitting in the Mōkauea 'īi of Kalihī and Kāpalama...so Mōkauea is an 'īi inside of Kalihī Ahupua'a.

The future is in the past...because I've been up here and this place is so sacred and to me I always look to share with everyone that there are not just these eight islands, there are ten more, and it's just such a huge...you know the kids, I tell them, this island right here was right here where Loihī is going right now...We have Hawaiian names for all of these (islands)...in chants...If you understand the Hawaiian language you will understand so much more, because so much of what we don't know are in chants, because our language, because we were all an oral people, like all of the other natives, until the 1820s when the missionaries came and decided to write it all down, and they changed a lot of stuff...

Mokumanamana and Nihoa are connected to this place, and I'll get back to that, of how they are connected...so Mokumanamana is one of, I think, the most important archaeological sites...in the archaeological sense people would say sites, but to me and other *Kānaka Maoli* it is the largest site in Hawai'i. It is on the Tropic of Cancer. This island, and that's why we called it Mokomanana...*Mana* to the second. *Mana* plus another *mana*, you know, two *manas*! We have a name for the Tropic of Cancer. When you think about, how did our *kāpuna* know that this is where the sun hung out on June 21st for two days?!, you know! It's called Pō'ai 'olu 'ākau...The Tropic of Capricorn...we had a name for that too, which is Pō'ai 'olu Hema. And then the equator is Pō'ai waena honua. We have names for all of this! Our ancestors knew so much more than we could even imagine. That's why they built Hō'kūle'a in the 1970s. To prove, because everyone said that the Hawaiians sailed up there by accident...not quite! We knew that Hō'kūle'a was our zenith star. We knew Makali'i, the other zenith stars. When they set and when you sail to it and you look for the star and then you will find all of these islands! It was in our oral history, you know, it was in our chants. We have the names, the summer solstice [*māuiti 'iki' i o ke kanwela*]. The winter solstice.

This is an aerial view of what's left of Mōkauea and in the fringing reef...this fishpond, UH dug it in...1981. It was just a little *keiki* pond, and then UH came and decided to...all the fishponds were gone and they wanted to sustain all of the families living here, but they put the channel, the 'auwai on this side, and the current comes from here, so...there is just not enough circulation and oxygen inside of it...its filled with silt, so we've been taking it out. One person said, what if you put solar panels and put a fan down there to get more oxygen? But we've been having UH come out, and they've been doing water quality testing...I'm hoping that some graduate student will come out and figure something out!

We talk about all of the mountain names and the stories that go with them. This is Kalihī *ahupua'a* and this is Kāpalama. Mōkauea in the LCA, in the land claim awards in the Māhele...it's in Kalihī Ahupua'a, but when you look at some maps, it's actually in Kāpalama Ahupua'a, but Kāpalama and Kalihī, they kind of merge together, so every time we talk about Kalihī we talk about Kāpalama. They are basically together, as one...

So Kalihī means the edge. King Kamehameha III named that...he actually said that he named it the edge because it was the edge of the country, still yet. Because after Maitiikukahi moved everything to town, from Wāhiawa...most of the stuff was going on downtown, and so Kalihī was like the edge of where it started to become country. But then the edge, Kalihī, because of the mountain names and who lived up here, it's also the edge of the spirit world, in essence. One of the mountains is named Kilohana, and that is the place where our Sky Father and Earth Mother lived. So Papa and Wākea, but Papa in here human form, Haumea. And they are known to reside, to have lived up there. And so, if the creators of our race choose to live up in a certain area on this island, then it must have been a really sacred area. And then all of the other names, there's Lamihuli, which is another name that has to do with heaven and spiritualness up there. So in a sense we felt that that place up there, it's the edge...where you go into a spirit world...Right up here is Kanokomeo. And then right down here Keana Kamao where you have the *ahu* of the shark, the *mano*. So in the old days there was a lava tube that went all the way up to the mountain. And there's families still today that carry on this genealogy through this story...Its their story of the shark swimming up through the lava tube, up to the mountain, and there's a cave named after it. Keana Kamao means the cave of the shark. *Ana* is cave and *mano* is shark and so there was a lava tube that went up, and they would be fed up there.

So there was this *mauka*, *makai* relationship between the two. So there's Mōkauea and Kāhaka 'aulana is the other island, and that was the most important island. That was the one where all of the astronomers lived: the *kilo hōkū*. So all of the *kāpuna*...the Kupehea family...they were the ones who were the experts in knowing when which star was rising, and where the sun would rise every day, because it rises in a different place every day. Where the moon would rise. Where the sun would set. When to plant. When to fish. When to set up your *hetau*. This is the thing that's kind of left out in the archaeology; it's not the stones that make the *hetau*...what's more important is the place. Where the sun is going to rise in the *hetau*, where the



sun is going to set. And that's not always been talked about in the archaeology...it's because when archaeologist go to a site, they don't always look up! This is not a foreign thing. Go to Egypt, go to Machu Picchu, go to Stonehenge. Everything has to do with the rising and the setting of the Everything. The Sun, the Moon and the Stars! Why is it any different here?

...Kamehameha III, which is Kauikeaouli, in 1837 designated all these fishponds to be preserved. He actually wrote that, in Hawaiian. That was his first ever document. He put in there that the fishponds would be preserved....People need to know all of the fishponds that were here.

So in 1903, Cobb (1905) did a report...and half of the fishponds were filled in already. So in the late 1800s is when they already started filling in the fishponds. Once they started dredging is when so much got destroyed. But actually, in the 1920s they were already still a little bit fishponds left, but half of the fishponds were filled in in 1903, and they were still producing 560,000 pounds of fish per year. That is crazy! It's just amazing. In the Cobb (1905) report it has every single type of fish that they documented and every single type of *limu*...we also had salt ponds back here too...on low tide this whole area, you could walk this whole area. Right now what's left of Mokauea is just this little piece right here. And of course that's what Ke'ehi means....this whole area you could travel with a canoe, if you know the reef. You had to know it by the back of your hand, and then, back here there's a little channel called Halo Channel...we try to get everyone here to call things by their traditional names, and we are trying to heal this whole entire place...

So, Moanaloa, they call it Salt Lake, it was 150 acres, huge... Ananoho... this place was so abundant!...There were 7 fisheries here. You had Mokauea Fishery, Kaloaloa Fishery, Moanaloa Fishery...There was a *konohiki* for each fishery. A caretaker. The *konohiki* for this area was our Tutu, David Malo Kupihea. He was born in 1872 on that island, Kahaka aulama. He lived there his whole life. There's two David Malos. There's the famous David Malo, which was his nephew some 20 years later. A lot of people got these two mixed up, because David Malo was so famous, wrote so many books and we quote him. But David Malo Kupehea didn't really publish anything... except one archaeologist, thank God, interviewed him and that's how we got a lot of the *mo olelo* of the place, and then from interviewing Grandima. It's in Nahuinoko'au...the Kupihea O'hana, we were the caretakers of this navigational gourd. This is where it hangs...our Tutu made and took care of just not going to be found! Because when the missionaries came in 1820 nobody wrote about it, or if they did we haven't found it yet. This is called the *ipuhio 'okelewa'a*. Because watches came in, because clocks came in...all of that a stuff, and we stopped traveling far distances too. We stopped going to Tahiti...for the navigator, because he can hang this on the *wa'a* (canoe), and so they put water in here, and there were all of these lines in quadrants to help you, and even these had significance too...what you do is you hang this in the canoe, and there are holes right there, and at night the stars will reflect in the water...so I'm wondering if any other people in the Pacific, or around the world, thought of this? ...you hang it and

the stars will reflect in there and you have your guiding star, where you're coming from...from Hawaii 'i, its *Hōkūle'ā*, that's our guiding star. Or *Makali'i*. There's two but they set at different times...he talked about sailing up to Nihoa and Mokumanamana...he said, we would leave Ke'ehi and go to Mokumanamana, well he called it Ku'ehenani, which is another spiritual name for that area, and *kāhea* back nā *i'a*. He would call back the fish, the *i'a*, to the fishponds...you cannot grasp it with a Western mind...like when I tell the shark stories, you cannot grasp it with a Western mind. You really have to understand that we had this intimate connection with everything. That's why we called one of our sharks our *'aumākua*...my family would feed one shark all the time, but we had this intimate relationship that you don't have to use words to talk. You sense this. You feel this. With the animals, with the land. That's how they could go up there and ask the fish to come, and to even know they're going to die to sustain us. It's a real symbiotic relationship

---

# **APPENDIX C:**

Phase I Environmental Site Assessment,  
Honolulu, Oahu, Hawai'i  
TMK (1)-5-041: Portion of Parcels 006, 130, 034.  
EnviroServices & Training Center LLC, February 2015.



**TABLE OF CONTENTS**

**1.0 EXECUTIVE SUMMARY ..... 1**

**2.0 INTRODUCTION ..... 4**

2.1 BACKGROUND..... 4

2.2 PURPOSE..... 5

2.3 SCOPE OF SERVICES..... 6

2.4 SIGNIFICANT ASSUMPTIONS..... 6

2.5 CONDITIONS AND LIMITATIONS ..... 7

2.6 USER RELIANCE..... 7

**3.0 SITE DESCRIPTION..... 8**

3.1 LOCATION AND DESCRIPTION ..... 8

3.2 PHYSICAL SETTING ..... 8

3.2.1 *Site Topography*..... 8

3.2.2 *Regional Geology*..... 8

3.2.3 *Site Geology*..... 9

3.2.4 *Regional Hydrogeology*..... 9

3.2.5 *Site Hydrogeology*..... 10

3.2.6 *Nearest Surface Water Bodies*..... 10

3.3 CURRENT USE OF THE SUBJECT PROPERTY ..... 10

3.4 CURRENT USES OF THE ADJOINING PROPERTIES..... 10

**4.0 USER PROVIDED INFORMATION..... 11**

4.1 REQUIRED INFORMATION ..... 11

4.1.1 *Environmental Liens*..... 11

4.1.2 *Activity and Use Limitations*..... 11

4.1.3 *Specialized Knowledge*..... 11

4.1.4 *Valuation Reduction for Environmental Issues*..... 11

4.1.5 *Commonly Known or Reasonably Ascertainable Information*..... 11

4.1.6 *Degree of Obviousness of Potential Contamination*..... 12

4.2 OTHER INFORMATION PERTAINING TO THE SUBJECT PROPERTY ..... 12

4.2.1 *Reason for Performing Phase I ESA*..... 12

4.2.2 *Title Records*..... 12

4.2.3 *Owner, Property Manager, and Occupant Information*..... 12

**5.0 DOCUMENT REVIEW ..... 13**

5.1.1 *Phase I Report, Property Environmental Assessment, Proposed Marine Education Training Center, Sand Island, Hawaii, October 1991*..... 13

5.1.2 *Hazardous Materials and Regulated Waste Survey for Marine Education Training Center, Sand Island, October 1991*..... 13

5.1.3 *Phase I Brownfields Environmental Site Assessment, Sand Island State Park, October 2000*..... 13

5.1.4 *Brownfields Site Assessment Report, Sand Island State Park, July 2001*..... 14

**6.0 RECORDS REVIEW ..... 16**

6.1 STANDARD ENVIRONMENTAL RECORD SOURCES ..... 16

6.1.1 *Federal NPL and Delisted NPL*..... 17

6.1.2 *Federal CERCLIS and CERCLIS NFRAP*..... 17

6.1.3 *Federal RCRA CORRACTS*..... 17

6.1.4 *Federal RCRA (non-CORRACTS) TSD Facilities*..... 17

6.1.5 *Federal RCRA Generator*..... 17

6.1.6 *Federal Institutional Control/Engineering Control Registries*..... 18

6.1.7 *Federal ERNS*..... 18

6.1.8 *State Equivalent NPL and CERCLIS*..... 18

*Phase I Environmental Site Assessment  
SOEST Facility, Honolulu, Hawaii*

February 2015  
ETC Project No. 14-1026

**PHASE I  
ENVIRONMENTAL SITE ASSESSMENT**  
School of Ocean and Earth Science and Technology Facility (SOEST)  
And Marine Education Training Center (METC) Property  
Honolulu, Oahu, Hawaii  
TMK (1)-5-041: Portion of Parcels 006, 130, 034

**Prepared For:**  
Wilson Okamoto Corporation  
1907 South Beretania Street, Suite 400  
Honolulu, Hawaii 96826

**Prepared By:**  
**ENVIROSERVICES & TRAINING CENTER, LLC**  
505 Ward Avenue, Suite 202  
Honolulu, Hawaii 96814  
tel: (808) 839-7222

ETC Project No. 14-1026  
February 2015

10.0	DATA GAPS .....	33
11.0	CONCLUSIONS .....	34
12.0	DEVIATIONS AND ADDITIONAL SERVICES .....	35
13.0	ENVIRONMENTAL PROFESSIONAL CERTIFICATION .....	36
14.0	REFERENCES .....	37

**APPENDICES**

APPENDIX I:	FIGURES
APPENDIX II:	PHOTOGRAPHIC DOCUMENTATION
APPENDIX III:	REGULATORY RECORDS DOCUMENTATION (EDR Radius Map Report)
APPENDIX V:	QUALIFICATIONS OF THE ENVIRONMENTAL PROFESSIONAL

6.1.9	State Landfill and/or Solid Waste Disposal.....	18
6.1.10	State Leaking Underground Storage Tanks.....	19
6.1.11	State Registered Underground Storage Tanks.....	19
6.1.12	State Institutional Control Registry.....	19
6.1.13	State Voluntary Cleanup/Response Sites.....	19
6.1.14	State Brownfields.....	20
6.1.15	Unmappable/Orphan Sites.....	20
6.2	ADDITIONAL ENVIRONMENTAL RECORD SOURCES.....	20
6.3	HISTORICAL USE INFORMATION ON THE SUBJECT AND ADJOINING PROPERTIES.....	21
6.3.1	Aerial Photograph Review.....	21
6.3.2	Fire Insurance Maps.....	22
6.3.3	Property Tax Files and Land Title Records.....	22
6.3.4	Building Permit Records.....	23
7.0	<b>SITE RECONNAISSANCE.....</b>	<b>24</b>
7.1	METHODOLOGY AND LIMITING CONDITIONS.....	24
7.2	GENERAL SITE SETTING.....	24
7.3	EXTERIOR OBSERVATIONS.....	24
7.3.1	USTs / ASTs.....	25
7.4	INTERIOR OBSERVATIONS.....	25
7.5	DIELECTRIC FLUID CONTAINING EQUIPMENT.....	25
8.0	<b>INTERVIEWS.....</b>	<b>26</b>
8.1	INTERVIEW WITH SUBJECT PROPERTY OWNER/OCCUPANT.....	26
9.0	<b>FINDINGS AND OPINIONS.....</b>	<b>28</b>
9.1	SITE DESCRIPTION.....	28
9.2	USER PROVIDED INFORMATION.....	28
9.2.1	Required Information.....	28
9.2.2	Other Information Pertaining to the Subject Property.....	28
9.3	DOCUMENT REVIEW.....	28
9.4	RECORDS REVIEW.....	29
9.4.1	Standard Environmental Record Sources.....	29
	Federal NPL and Delisted NPL.....	29
	Federal CERCLIS and CERCLIS NFRAP.....	29
	Federal RCRA CORRACTS.....	29
	Federal RCRA (non-CORRACTS) TSD Facilities.....	29
	Federal RCRA Generator.....	29
	Federal Institutional Control/Engineering Control Registries.....	29
	Federal ERNs.....	29
	State Equivalent NPL and CERCLIS.....	29
	State Landfill and/or Solid Waste Disposal.....	30
	State Leaking Underground Storage Tanks.....	30
	State Registered Underground Storage Tanks.....	30
	State Institutional Control Registry.....	30
	State Voluntary Cleanup/Response Sites.....	30
	State Brownfields.....	31
	Unmappable/Orphan Sites.....	31
9.4.2	Additional Environmental Record Sources.....	31
9.4.3	Historical Use Information on the Subject and Adjoining Properties.....	31
	Aerial Photograph Review.....	31
	Fire Insurance Maps.....	31
	Property Tax Files and Land Title Records.....	31
	Building Permits.....	32
9.5	SITE RECONNAISSANCE.....	32
9.6	INTERVIEWS.....	32



## 1.0 EXECUTIVE SUMMARY

This report presents the results of a Phase I Environmental Site Assessment (ESA) performed by EnviroServices & Training Center, LLC (ETC) in conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) Practice E1527-13. This Phase I ESA was completed for the Wilson Okamoto Corporation (Client) for the Subject Property located at 10 Sand Island Access Road, Honolulu, Hawaii and is identified as Tax Map Key (TMK) identification numbers (1) 1-5-41: Parcels 006 (portion), 130 (portion), and 334 (portion). Review of tax records indicated that the Subject Property is currently owned by the State of Hawaii, Department of Transportation, Harbors Division.

The Subject Property consists of approximately 11.2 acres, which includes 9.5 acres of land and 1.7 acres of nearshore waters located on Sand Island on the southern portion of the island of Oahu (Appendix I, Figure 1). The Subject Property currently contains an access road, a vacant lot, and the School of Ocean and Earth Science and Technology (SOEST) / Marine Educational Training Center (METC) facility operated by the Honolulu Community College which includes a two story building, storage sheds, and a dock.

Visual observation for the use and/or storage of hazardous materials and hazardous waste was performed on December 8, 2014 and January 16, 2015. Fabrication, maintenance, and repair shops were noted on the northern portion of the Subject Property in association with the SOEST / METC facility. Various maintenance chemicals such as solvent, epoxy, paints, and lubricants were stored properly within the shop. Limited, incidental staining was noted on the pavement near the hazardous materials flammable storage locker and container spill pallet area. Based on observations, this finding does not appear to pose an imminent risk of harm to public health or the environment and is not likely to be the subject of enforcement action if brought to the attention of appropriate governmental agencies. Therefore, this finding is considered a *de minimis* condition. Fluorescent light ballasts that were observed throughout the interior areas of the Subject Property may contain PCBs; however, such ballasts were not observed to be leaking and are considered a *de minimis* condition.

The HECO transformer observed on the Subject Property was noted to be in new condition; however, there were signs of a previous release on the concrete pad. Due to the fact that HECO reportedly cleaned the release and replaced the transformer, the potential impact from this transformer and the former release is a *de minimis* condition. A propane tank and a small diesel tank for the generator were observed to be in good condition with no evidence of leaks. The manhole covers for an oil water separator and associated underground storage tank (UST) were observed and there were no obvious signs of impacts to public health or the environment. METC personnel noted that the UST was designed to contain discharges from the ground floor maintenance shop floor drains; however, there has been minimal discharges to the system. This finding is considered a *de minimis* condition.

The Subject Property was not listed in any of the government databases by the contracted database search. The contracted database search identified one (1) CERCLIS NFRAP site, fifty-eight (58) SHWS sites, six (6) LUST sites, one (1) UST site, one (1) State Brownfields site, and eleven (11) Orphan sites within the specified radii. Review of the findings indicated that none of the database-identified facilities were considered a significant concern for the Subject Property, except for one (1) Orphan site and the State Brownfields site, which subsequently was revealed to include the Subject Property. Request for file review for the *DLNR Buried Drum Site* from the orphans list revealed no documentation other than that from the database report, which stated that there was a 10-gallon petroleum release that appeared to contaminate the soil and groundwater on Sand Island. The Hawaii Department of Health (DOH) has classified it as a low hazard priority the listed Project Manager was not able to provide a location. Although it is not clear whether this site is on or near the Subject Property, due to the DOH's low risk ranking and the relatively minor amount of material released, ETC considers this a *de minimis* condition.

Review of documents associated with the Subject Property included two *Phase I Environmental Site Assessments* (ESA) conducted in 1991 and 2000 as well as the 2001 *Brownfields Environmental Site Assessment*, which had been identified in the database search for Sand Island. The 1991 *Phase I ESA* indicated that hazardous materials had not been properly stored and resulted in a small area of stained soil. However, since this was not identified in the subsequent ESAs or during the site reconnaissance, it can be concluded that the hazardous materials and stained soil were removed and no longer pose a reasonable risk of impacting the Subject Property. Therefore, the former improper storage of hazardous materials is a *de minimis* condition. The 2000 *Phase I ESA* indicated that the entire area had been used to dispose of solid waste since 1934. No obvious signs of solid waste dumping were identified during the site reconnaissance and solid waste was not noted in the two test pits dug on the Subject Property as a part of the 2001 *Brownfields ESA*. However, there remains the possibility that buried solid waste may present on the Subject Property. The 2001 *Brownfields ESA* included the analysis of soil from two test pits on the southern portion of the Subject Property. Analytical results indicated that detectable concentrations of heavy metals, SVOCs, VOCs, and pesticides were found in one or more samples from the Subject Property. Specifically, test Pit 2, located on the southwestern portion of the Subject Property and east of the access road, contained elevated concentrations of benzo(a)pyrene. Visual observations of staining in the test pit(s) was also noted. Based on these findings the suspect buried solid waste and contaminants found during the previous environmental investigations is considered a recognized environmental condition (REC).

Historical real property tax records, building permit records, aerial photographs, and Sanborn maps were reviewed to assess past and prior use history of the Subject Property. No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

In summary, ETC performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-13 on the Subject Property. This assessment has revealed no evidence of RECs in connection with the Subject Property, except for the following:

- The suspect buried solid waste and contaminants found during previous environmental investigations conducted on the Subject Property and surrounding areas is considered a REC.

## 2.0 INTRODUCTION

EnviroServices & Training Center, LLC (ETC) was contracted by the Wilson Okamoto Corporation (Client) to complete a Phase I Environmental Site Assessment (ESA) for the Subject Property located at 10 Sand Island Access Road, Honolulu, Hawaii and identified as Tax Map Key (TMK) identification numbers (1) 1-2-5: Parcels 006 (portion), 130 (portion), and 334 (portion).

This Phase I ESA was performed in accordance with the ASTM International Standard E1527-13 entitled *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (referred to herein as the ASTM Practice). The ASTM Practice is intended for use by parties who wish to assess the environmental condition of commercial real estate with respect to contaminants within the scope of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and petroleum products. As such, the ASTM Practice was designed to satisfy "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined in 42 United States Code (U.S.C.) §9601(35)(B).

## 2.1 Background

Under CERCLA, persons may be held liable for cleaning up hazardous substances at properties that they either currently own or operate, or owned or operated at the time of disposal. Strict liability in the context of CERCLA means that a potentially responsible party may be liable for environmental contamination based solely on property ownership and without regard to fault or negligence.

In 1986, the Superfund Amendments and Reauthorization Act (SARA) amended CERCLA by creating an "innocent landowner" defense to CERCLA liability for those persons who could successfully demonstrate, among other requirements, that they "did not know and had no reason to know" prior to purchasing the property that any hazardous substance that is the subject of a release or threatened release was disposed of on, in, or at the property. Such persons, to demonstrate that they had "no reason to know" must have undertaken, prior to, or on the date of acquisition of the property, "all appropriate inquiries" into the previous ownership and uses of the property consistent with good commercial or customary standards and practices.

The Small Business Liability Relief and Brownfields Revitalization Act (referred to as "the Brownfields Amendments") was enacted in January 2002 to amend CERCLA. These amendments included providing funds to assess and clean up brownfields sites, clarifying CERCLA liability provisions for certain landowners, and providing funding to enhance state and tribal cleanup programs.

Subtitle B, Title II of the Brownfields Amendments revised CERCLA, clarifying the requirements necessary to establish the innocent landowner defense. The Brownfields Amendments also added protections from CERCLA liability for “bona fide prospective purchasers” and “contiguous property owners” who meet certain statutory requirements. Each of the CERCLA liability provisions for innocent landowners, bona fide prospective purchasers, and contiguous property owners (referred to collectively as “landowner liability protections,” or LLPs) requires that, among other requirements, persons claiming the liability protections conduct all appropriate inquiries into prior ownership and use of a property prior to or on the date a person acquires a property.

A key provision of the Brownfields Amendments was to finalize regulations setting federal standards for the conduct of all appropriate inquiries. Such federal standards were promulgated in the *Standards and Practices for All Appropriate Inquiries, Final Rule, 40 CFR Part 312*, referred to as the AAI Final Rule.

Section 312.11 of the AAI Final Rule indicates that the ASTM International Standard E1527-13, entitled *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, may be used to comply with the requirements set forth in Sections 312.23 through 312.31 of the AAI Final Rule. Therefore, this Phase I ESA was performed in conformance with the ASTM International Standard E1527-13.

#### **2.2 Purpose**

The purpose and goal of this Phase I ESA is to conduct an inquiry designed to identify recognized environmental conditions in connection with the Subject Property, to the extent feasible pursuant to the process described in the ASTM Practice. The term recognized environmental condition (REC) is defined as:

- “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment;
- (2) under conditions indicative or a release to the environment; (3) under conditions that pose a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions.”

As defined in the ASTM Practice, for the purposes of this Phase I ESA, the term “migrate” or “migration” refers to the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface (ASTM, 2013).

#### **2.3 Scope of Services**

The scope of work included the following:

- Development of a site description for the Subject Property including site background, physical characteristics and historical site conditions;
- Evaluation of user provided information including but not limited to environmental liens, activity and use limitations, specialized knowledge, valuation reduction of environmental issues, and other information pertaining to the property;
- Evaluation of information in programs such as NPL, CERCLIS, FINDS, ERNS, RCRA notifiers, and other governmental information systems within specific radii of the property to identify sites that would have the potential to impact the property;
- Visual evaluation of current site conditions (as applicable) including compliance with appropriate regulations as they pertain to the presence of facility storage tanks, drums, and containers; and transformers and other electrical equipment potentially containing PCBs;
- Visual evaluation of the adjacent properties to identify high-risk neighbors and the potential for a chemical to migrate onto the property;
- Interviews with owner(s), site manager(s), occupant(s), local government official(s), and/or other individuals with past and prior use history of the property;
- Complete a written report detailing the Phase I ESA findings, conclusions; and
- Documentation of supportive information including maps, site photographs, regulator records, and interview(s).

#### **2.4 Significant Assumptions**

This Phase I ESA is limited by the availability of information at the time of the assessment. Interviews were conducted and interviewee’s responses were assumed to be answered in good faith, to the extent of his/her actual knowledge. In addition, since no hydrogeological data was available for the Subject Property, the groundwater was assumed to flow in the direction of the surface topography of the Subject Property and surrounding areas.

## 2.5 Conditions and Limitations

ETC has completed this Phase I ESA for the Subject Property in accordance with the scope and limitations of ASTM Practice E1527-13. ETC's findings and conclusions contained herein are professional opinions based solely upon visual observations, interviews, and interpretation of the historical information and documents available to ETC at the time this Phase I ESA was conducted. Opinions stated in this report do not apply to changes that may have occurred after the services were performed.

ETC has performed specified services for this project with the degree of care, skill and diligence ordinarily exercised by professional consultants performing the same or similar services. No other warranty, guarantee, or representation, expressed or implied, is included or intended; unless otherwise specifically agreed to in writing by both ETC and ETC's Client.

## 2.6 User Reliance

This report is intended for the sole use of ETC's Client, exclusively for the project site indicated. ETC's Client may use and release this report, including making and retaining copies, provided such use is limited to the particular site and project for which this report is provided. However, the services performed may not be appropriate for satisfying the needs of other users. Release of this report to third-parties will be at the sole risk of Client and/or said user, and ETC shall not be liable for any claims or damages resulting from or connected with such release or any third party's use or reuse of this report.

## 3.0 SITE DESCRIPTION

### 3.1 Location and Description

The Subject Property consists of approximately 11.2 acres, which includes 9.5 acres of land and approximately 1.7 acres of near shore waters located at 10 Sand Island Access Road in Honolulu, Hawaii. The Subject Property is located on Sand Island, a man-made island off the south-central coast of Oahu and is identified by TMKs (1) 1-5-041: Parcels 6 (portion), 334 (portion), and 130 (portion). The Subject Property currently includes the School of Ocean and Earth Science and Technology (SOEST) / Marine Educational Training Center (METC) operated by the Honolulu Community College, an access road, and a vacant lot. The METC includes an approximately 18,576 square foot steel frame warehouse with a second floor mezzanine (14,672 square feet), which appears to be provided with electricity from photovoltaic panels on the roof in addition to the Hawaii Electric Company (HECO) transformer and powerlines. Further potable water and sewer infrastructure appears to be provided by the City & County of Honolulu. The Subject Property also appears to contain storage sheds, a dock with two cranes, and a parking lot. Maps of the Subject Property are included in Appendix I and photographic documentation is included in Appendix II.

### 3.2 Physical Setting

Groundcover on the northern portion of the Subject Property as well as the access road generally consists of asphalt pavement. The southern portion of the Subject Property generally consists of vegetation with areas of bare soil. The Subject Property and surrounding areas exhibited a slight gradient toward Keehi Lagoon, located to the north and west.

#### 3.2.1 Site Topography

Topographic map coverage of the Subject Property and surrounding areas is provided by the United States Geological Survey Island of Oahu, Hawaii 7.5-minute Series, Honolulu Quadrangle, 1998. The elevation of the Subject Property ranges from approximately 1 to 10 feet above mean sea level (msl).

#### 3.2.2 Regional Geology

Oahu is formed by the erosional remnants of two shield volcanoes. These are the Waianae range to the west and the Koolau range to the east. The Waianae volcano is estimated to have formed 2.4 to 3.6 million years before present. It consists of a tholeiitic lava shield with a thick cap of transitional to alkalic rock. Rejuvenation-stage volcanics of undifferentiated age occur in Kolekole Pass and on the south flank of the Waianae shield. Dike orientations define northwest and southwest rift zones (Macdonald, et al., 1985).

The Koolau volcano is estimated to have formed 1.8 to 2.6 million years before the present (Macdonald, et al., 1983). It consists of a tholeiitic lava shield and lacks an alkalic cap. It has well defined major dike complex trending northwest-southwest. A third, minor rift zone referred to as the Kaau rift trends southward from Kaau crater, near the upland crest of the Koolau Ridge. After a long dormant period and periods of deep erosion, the Koolau volcano developed abundant and scattered rejuvenation-stage vents, typically aligned on northeast-striking fissures (Macdonald, et al., 1983).

### 3.2.3 Site Geology

The Subject Property is situated at an elevation of less than 10 feet above msl. The soil at the Subject Property is mapped as fill land (FL), which consists of areas filled with material from dredging, excavation from adjacent uplands, garbage, and slurry from sugar mills. Mixed fill land occurs mostly near Pearl Harbor and in Honolulu, adjacent to the ocean. The land areas are filled with material dredged from the ocean or hauled from nearby areas, garbage, and various other materials. The land type is mainly used for urban development (USDA, 1972).

### 3.2.4 Regional Hydrogeology

The primary drinking water in the Hawaiian Islands is drawn from basal groundwater. Basal groundwater is formed by rainwater percolating down through the residual soils and permeable volcanic rock. The portion of the island situated below sea level is saturated with ocean salt water, except within rift zones of the volcanoes where fresh water forms a basal lens called the "Chyben-Herzberg" lens. A zone of transition between the fresh groundwater and the ocean salt water occurs due to the constant movement of the interface as a result of tidal fluctuations, seasonal fluctuations in recharge and discharge and aquifer development (Macdonald, et al., 1983).

Downward percolation of rainwater may be stopped by impermeable layers such as dense lava flows, alluvial clay layers and volcanic ash, which can cause the formation of a perched or high level aquifer that is not in contact with salt water. Recharge of the aquifer occurs in areas of high rainfall, which are the interior mountainous areas. The groundwater flows from the recharge areas to the areas of discharge along the shoreline. Frictional resistance to groundwater flow causes it to pile up within the island until it attains sufficient hydraulic head to overcome friction. Thus, basal groundwater tends to slope toward the shoreline.

### 3.2.5 Site Hydrogeology

The site is underlain by the Kailhi Aquifer System, which is part of the Honolulu Aquifer Sector on the island of Oahu. The aquifer is classified by Mink and Lau, 1990, with the system identification number 30103116 (13321). This system includes an unconfined basal aquifer in sedimentary (nonvolcanic) lithology. The groundwater in this aquifer is described as being currently used and is neither a drinking water source nor ecologically important. The groundwater contains a moderate salinity (1,000 to 5,000 mg/l Cl-) and is described as being replaceable with a high vulnerability to contamination (Mink and Lau, 1990). The site is further underlain by a second aquifer of the same system. The aquifer is a confined, basal aquifer in flank compartments, and is classified with the system identification number 30103121 (11113). The aquifer is described as a currently used drinking water source containing groundwater with a fresh salinity (<250 mg/l Cl-). It is also described as irreplaceable with a low vulnerability to contamination (Mink and Lau, 1990). The direction of groundwater flow at the Subject Property is expected to be tidally influenced.

### 3.2.6 Nearest Surface Water Bodies

The nearest surface water body is the Keehi Lagoon located adjacent to and included in the Subject Property. The Keehi Lagoon is directly connected to the both the Honolulu Harbor (Kailhi Channel) to the east and the Pacific Ocean to the south.

### 3.3 Current Use of the Subject Property

The northern portion of the Subject Property is currently occupied by the Honolulu Community College's SOEST / METC facility. The SOEST / METC facility is used to provide training to individuals on marine topics focusing on small vessel (up to 45 feet) fabrication and repair. The facility includes a concrete pier equipped with two cranes to allow work on vessels in the water, finger piers for removing vessels from the water, a classroom, computer lab, library, office space, storage sheds, and a parking lot. The paved access road is used to reach the facility from Sand Island Access Road. The southern portion of the Subject is undeveloped.

### 3.4 Current Uses of the Adjoining Properties

ETC visually inspected the neighboring properties and their operations from the Subject Property and publicly accessible areas. The Subject Property is bordered to the north by the intersection of Keehi Lagoon with the Honolulu Harbor and commercial and recreational vessels frequently sail through the area. The Subject Property is bordered to the east by Sand Island Access Road, beyond which is the Matson port servicing facility. South of the main portion of the Subject Property and north of the Subject Property's access road is a fenced dirt lot with vegetation along the perimeter. South of the Subject Property's access road is a paved overflow parking lot for vehicles that are shipped to the island. Southwest of the Subject Property is the Sandbox BMX facility, which consists of compacted dirt racetracks for cyclists. The Subject Property is bordered to the west by a public park area that includes a paved parking lot and small boat launch owned by the Department of Land and Natural Resources.



#### **4.0 USER PROVIDED INFORMATION**

This section is intended to provide information obtained from the user of this Phase I ESA that will help identify RECs associated with the Subject Property. The information provided does not require the user to have the technical expertise of an environmental professional and are generally not provided by the environmental professional performing the Phase I ESA.

##### **4.1 Required Information**

In order to qualify for one of the LLPs offered by the Brownfields Amendments, the user must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that “all appropriate inquiry” is not complete. Mr. Maynard Young, Manager, Facilities Planning and Design for Honolulu Community College (“user”), provided ETC with the following information.

##### **4.1.1 Environmental Liens**

The user has no knowledge of any environmental liens or governmental notifications relating to past or recurrent violations of environmental laws with respect to the Subject Property.

##### **4.1.2 Activity and Use Limitations**

The user had no information pertaining to activity and land use limitations filed or recorded in a registry under federal, tribal, state or local law.

##### **4.1.3 Specialized Knowledge**

The user had no specialized knowledge or experience related to the Subject Property.

##### **4.1.4 Valuation Reduction for Environmental Issues**

The Subject Property is going to be leased from the University of Hawaii and the lease amount is currently unknown.

##### **4.1.5 Commonly Known or Reasonably Ascertainable Information**

The user was not aware of any commonly known or reasonably ascertainable information about the Subject Property that would help the environmental professional to identify conditions indicative of releases or threatened releases.

##### **4.1.6 Degree of Obviousness of Potential Contamination**

The user has no knowledge of any obvious indicators that point to the presence or likely presence of contamination at the property based on their knowledge and experience related to the Subject Property.

#### **4.2 Other Information Pertaining to the Subject Property**

##### **4.2.1 Reason for Performing Phase I ESA**

This Phase I ESA was conducted as a prerequisite to obtaining a Subject Property lease from the Department of Land and Natural Resources (DLNR).

##### **4.2.2 Title Records**

Title records/documents were not provided by the User; however, ETC conducted a limited land title search, which is documented in Section 6.3.3.

##### **4.2.3 Owner, Property Manager, and Occupant Information**

Subject Occupant:

Marine Education & Training Center (METC)

Honolulu Community College (HCC)

Subject Property Manager:

Derek Inafuku, Vice Chancellor for Administrative Services

Honolulu Community College

Tel: (808) 845-9123

Subject Property Owner:

State of Hawaii, Department of Land and Natural Resources

## 5.0 DOCUMENT REVIEW

ETC was notified of an article published on September 15, 2014 by Kevin Martinez titled, *Honolulu city officials vote to transfer homeless to former WWII internment camp* (<http://www.wsww.org/en/articles/2014/09/15/hono-s15.html>). The article highlighted investigations that had been performed on and around the Subject Property. Subsequently, ETC reviewed the diligence documents, environmental reports, and correspondence for the Subject Property that were either provided by Wilson Okamoto Corporation or available at the Hawaii Department of Health (DOH) Hazard Evaluation and Emergency Response (HEER) Office and/or Solid Hazardous Waste Branch (SHWB).

### 5.1.1 Phase I Report, Property Environmental Assessment, Proposed Marine Education Training Center, Sand Island, Hawaii, October 1991

A *Phase I Property Environmental Assessment* was prepared by Muranaka Environmental Consultants, Inc. (MECI) in October 1991. MECI noted that Kiewit Pacific operated a construction equipment staging area on the northern portion of the Subject Property. Several spent batteries and 55-gallon drums of used oil were observed stored improperly and as a result an approximate 4-foot by 4-foot area appeared to be stained by petroleum products from the used oil drums. MECI also observed coralline spoils that were stockpiled south of the Subject Property access road. MECI indicated that the stockpiles were a result of a City and County of Honolulu soil investigation and may have been contaminated with petroleum products.

### 5.1.2 Hazardous Materials and Regulated Waste Survey for Marine Education Training Center, Sand Island, October 1991

MECI also conducted a *Hazardous Materials and Regulated Waste Survey* in October 1991 to document potential hazardous materials and wastes that will be used / generated as a result of the activities conducted at the SOEST /METC. ETC conducted a site reconnaissance of the facility as documented in Section 7.0, which includes any hazardous materials and/or wastes identified on the Subject Property.

### 5.1.3 Phase I Brownfields Environmental Site Assessment, Sand Island State Park, October 2000

A *Phase I Brownfields Environmental Site Assessment (ESA)* was prepared by Ecology and Environment, Inc. (E&E) Superfund Technical Assessment and Response Team (START) for the Sand Island State Park in October 2000. The ESA concluded that there were no recognized environmental conditions (RECs) for the area; however, several *de minimis* conditions were listed. In particular, it was noted that solid waste was dumped on the site (which includes the Subject Property) since 1934. Investigations were recommended to determine the potential hazards that may be present based on that dumping.

The ESA referenced prior investigations, including a 1973 *Environmental Impact Statement (EIS)* prepared by the Division of State Parks and Aotami & Oka Architects, Inc. which identified solid waste in test pits throughout the area. The ESA also referenced a 1994 assessment of the area by the U.S. Army Engineer District which indicated that there were no remaining ordnance and explosive wastes or unexploded ordnance materials from the previous military base and firing range operations.

### 5.1.4 Brownfields Site Assessment Report, Sand Island State Park, July 2001

A *Brownfields Site Assessment Report* was prepared by Ecology and Environment, Inc. (E&E) Superfund Technical Assessment and Response Team (START) for the Sand Island State Park in July 2001. The goal of the assessment was to conduct a baseline survey to determine whether past activities had affected the soil and to thereby aid in making decisions about future operations at the site. To accomplish this goal, 25 test pits were dug throughout the Sand Island area and soil was analyzed for metals, semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), pesticides, and polychlorinated biphenyls (PCBs).

Test Pits, TP-1 (-157,88710, 21,31171) and TP-2 (-157,88762, 21,31171), appear to be located within the southeastern portion of the Subject Property. A backhoe was utilized to dig to a depth of 3.5 feet in TP-1 and 4 feet in TP-2. Then three soil samples were collected from each test pit (TP-1-1, TP-1-2, TP-1-3, TP-2-1, TP-2-2, TP-2-3) and all were analyzed for metals and SVOCs. Additionally, TP-1-1 and TP-2-1 were analyzed for VOCs, pesticides, and PCBs. Several parameters were detected and in particular and the detections are summarized in the table below. The concentration of benzo(a)pyrene in TP-2-1 (0.82 mg/kg) was noted to have exceeded the October 1999 Environmental Protection Agency (EPA) Preliminary Remediation Goals (PRG) for Industrial Soils (0.3 mg/kg); however, it did not exceed the Hawaii Administrative Rules Tier 1 Action Levels where rainfall is 200 cm/yr and drinking water is not threatened (1 mg/kg). Additionally, the photographic documentation for TP-2 indicated that there was a layer of stained soil within the test pit, which coupled with the concentration of benzo(a)pyrene indicates that there may have been contaminated soil in this test pit.

Table 1: July 2001 Brownfields Site Assessment Report Analytical Results

Constituent	TP-1-1	TP-1-2	TP-1-3	TP-2-1	TP-2-2	TP-2-3
Aluminum	1500	5910	5850	8050	1630	937
Antimony	ND	ND	ND	2	ND	ND
Arsenic	8.9	8.3	10	11.6	ND	ND
Barium	14.7	53.5	43.3	178	26.7	15.5
Beryllium	0.09	0.3	0.28	0.39	0.1	0.05
Cadmium	ND	0.12	ND	0.66	ND	ND
Calcium	323000	304000	310000	271000	323000	317000
Chromium	8.7	21.7	23.7	41.5	10.2	6.4
Cobalt	2.6	8.6	7.3	15.2	3.1	2
Copper	4.2	15	11.8	108	19	4.7
Iron	4530	11400	10700	27400	4900	2550
Lead	4	19.4	10.9	324	37.4	11
Magnesium	6740	9780	9220	10400	10800	8500

Constituent	TP-1-1	TP-1-2	TP-1-3	TP-2-1	TP-2-2	TP-2-3
Manganese	98.8	2.10	ND	350	96.9	73.2
Mercury	ND	0.12	ND	ND	ND	ND
Nickel	5.8	20.3	16.6	65.9	20.1	5.8
Potassium	325	950	843	1690	432	266
Selenium	ND	ND	ND	1.1	ND	ND
Silver	ND	ND	ND	0.17	ND	ND
Sodium	4350	4380	4170	5280	4170	4340
Vanadium	10.4	28.8	29.8	43.4	11.8	6.2
Zinc	10.9	39.1	29.8	464	49.2	17.6
Cyanide	0.36	0.54	2.8	0.1	0.27	0.28
Acenaphthylene	ND	ND	ND	0.15	ND	ND
Fluorene	ND	ND	ND	0.079	ND	ND
Phenanthrene	ND	ND	0.057	0.73	ND	ND
Anthracene	ND	ND	ND	0.13	ND	ND
Fluoranthene	ND	0.094	0.15	1	ND	0.087
Pyrene	ND	0.13	0.21	1.5	0.045	0.13
Benzo(a)anthracene	ND	0.051	0.072	0.56	ND	0.046
Chrysene	ND	0.075	0.11	0.85	ND	0.062
bis(2-ethylhexyl)phthalate	ND	2.9	2.5	ND	3.3	0.38
Benzo(b)fluoranthene	ND	0.07	0.093	0.6	ND	0.057
Benzo(k)fluoranthene	ND	0.064	0.094	0.59	ND	0.073
Benzo(a)pyrene	ND	0.085	0.12	0.82	ND	0.084
Indeno(1,2,3-cd)pyrene	ND	0.072	0.1	0.62	ND	0.085
Dibenz(a,h)anthracene	ND	0.39	0.39	0.17	0.38	0.38
Benzo(g,h,i)perylene	ND	0.074	0.12	0.53	0.045	0.13
alpha-chlordane	0.00067	NA	NA	ND	NA	NA
gamma-chlordane	0.00062	NA	NA	ND	NA	NA
Aroclor-1260	ND	NA	NA	0.0099	NA	NA
Trichlorofluoromethane	0.004	NA	NA	0.004	NA	NA
Acetone	0.007	NA	NA	0.005	NA	NA
Toluene	0.004	NA	NA	0.004	NA	NA

Notes: All concentrations presented mg/kg  
 Boldfaced, shaded = exceeds applicable regulatory limit at the time of investigation (July 2001)  
 ND = not detected  
 NA = not analyzed

The investigation also included test pits near the Subject Property, including TP-3 (east of the access road and south of the main site), TP-4 and TP-5 (southwest of the Subject Property), and TP-6 (south of the access road). Detectable concentrations of heavy metals, SVOCs, pesticides, and VOCs were detected in one or more test pits. Specifically, the concentration of benzo(a)pyrene (0.33 mg/kg) and dieldrin (0.013 mg/kg) exceeded the corresponding applicable limits at the time of investigation. The study indicated that site-specific clean-up requirements needed to be determined prior to redevelopment; however, based on proposed future use, the efforts would be minimal.

## 6.0 RECORDS REVIEW

### 6.1 Standard Environmental Record Sources

To obtain information concerning recognized environmental conditions at or near the Subject Property, ETC contracted Environmental Data Resources, Inc. (EDR) to conduct an environmental database search. EDR is a company that specializes in the review of public regulatory environmental databases. The regulatory agency report provided (Appendix IV) is based on an evaluation of the data collected and compiled by a contracted data research company. The report is a radius search report, which focuses on both the Subject Property and adjacent properties that may impact the Subject Property. Adjacent properties listed in governmental environmental records are identified within a specific search radius (Table 2). The search radius varies depending on the particular record being researched. The search is designed to meet the requirements of the current industry approach as described in ASTM Practice E1527-13. The information provided is assumed to be correct and complete, unless noted otherwise.

**Table 2: ASTM Practice Environmental Record Sources and Recommended Search Distances**

Environmental Database Sources	ASTM Practice Search Distances (miles)
Federal NPL Site List	1.0
Federal De-listed NPL Sites	0.5
Federal CERCLIS List	0.5
Federal CERCLIS NFRAP Site List	0.5
Federal RCRA CORRACTS Facilities List	1.0
Federal RCRA non-CORRACTS TSD Facilities List	0.5
Federal RCRA Generators List	Subject Property and adjoining properties
Federal Institutional Control/Engineering Control Registries	Subject Property only
Federal ERNS List	Subject Property only
State-Equivalent NPL	1.0
State-Equivalent CERCLIS	0.5
State Landfill and/or Solid Waste Disposal Site Lists	0.5
State Leaking LUST List	0.5
State Registered LUST List	Subject Property and adjoining properties
State Institutional Control Registry	Subject Property only
State Voluntary Cleanup/Response (VCP/VRP) Sites	0.5
State Brownfield Sites	0.5

#### **6.1.1 Federal NPL and Delisted NPL**

The National Priorities List (NPL) is the Environmental Protection Agency's (EPA) database of uncontrolled or abandoned hazardous waste properties, which are considered to pose an immediate threat to human health and the environment. These properties are identified for priority remedial response actions under the Superfund Program. The Subject Property was not identified as a NPL site or a delisted NPL site. The database did not identify any delisted NPL sites within a 0.5-mile radius of the Subject Property. In addition, the database did not identify any NPL sites within a 1-mile radius of the Subject Property.

#### **6.1.2 Federal CERCLIS and CERCLIS NFRAP**

The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database contains information on various aspects of potentially uncontrolled or abandoned hazardous waste properties from initial screening and assessment phases to listing on the NPL. The Subject Property was not identified as an active CERCLIS site or a CERCLIS No Further Remedial Action Planned (NFRAP) site. The database did not identify any active CERCLIS facilities within a 0.5-mile radius of the Subject Property. One (1) CERCLIS NFRAP facility was identified within a 0.5-mile radius of the Subject Property.

#### **6.1.3 Federal RCRA CORRACTS**

The RCRA Corrective Action Sites (CORRACTS) database contains Resource Conservation Recovery Information System (RCRIS) sites with reported corrective action. The Subject Property was not identified as a CORRACTS facility. The database search did not identify any CORRACTS sites within a 1-mile radius of the Subject Property.

#### **6.1.4 Federal RCRA (non-CORRACTS) TSD Facilities**

The EPA's RCRA program identifies and tracks hazardous waste from the point of generation to the point of final disposal. The RCRA Treatment, Storage or Disposal (TSD) facility database compiles those reporting facilities that treat, store, or dispose of hazardous waste. The Subject Property was not identified as a RCRA TSD facility. The database search did not identify any RCRA TSD facilities within a 0.5-mile radius of the Subject Property.

#### **6.1.5 Federal RCRA Generator**

The RCRA Generator database is a compilation by EPA's RCRIS of regulated facilities that generate hazardous waste. The Subject Property was not identified as a RCRA Large Quantity Generator (LQG) or RCRA Small Quantity Generator (SQG) facility. The database search did not identify any RCRA Generator sites on potential adjoining properties with respect to the Subject Property.

#### **6.1.6 Federal Institutional Control/Engineering Control Registries**

Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health. Institutional Controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on a site. The EPA Institutional Control and Engineering Control registry maintains a listing of sites with Institutional or Engineering Controls in place. The Subject Property was not identified as having institutional or engineering controls in place.

#### **6.1.7 Federal ERNS**

The Emergency Response Notification System (ERNS) tracks the initial notification of reported oil and hazardous material spills. The database contains information regarding the discharger, release date, material, amount released, incident location and release action taken. The Subject Property was not identified as an ERNS facility.

#### **6.1.8 State Equivalent NPL and CERCLIS**

The CERCLIS List is a compilation of known or suspected uncontrolled or abandoned hazardous waste sites. These sites either have been investigated or are currently under investigation by the EPA for the release, or threatened release, of hazardous substances. Once a site is placed in CERCLIS, it may be subjected to several levels of review and evaluation and ultimately placed on the National Priorities List. The State of Hawaii does not have a formal "State Superfund" program; therefore, the State Hazardous Waste Sites (SHWS) are the State of Hawaii's equivalent to the federal EPA's CERCLIS database. Additionally, because this information is acquired from the Hawaii Department of Health (DOH) Hazard Evaluation and Emergency Response (HEER) Office, these sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup that use state funds (state equivalent superfund) are identified along with sites where cleanup is paid for by the potentially responsible parties. The Subject Property was not identified as a SHWS facility. The database search identified fifty-eight (58) SHWS facilities within a 1-mile radius of the Subject Property.

#### **6.1.9 State Landfill and/or Solid Waste Disposal**

The State of Hawaii has records of all facilities that have received a solid waste management permit, including solid waste landfills, transfer stations, and incinerators. The Subject Property was not identified as a Solid Waste Facility/Landfill (SWF/LF) facility. The database search did not identify any SWF/LF facilities within a 0.5-mile radius of the Subject Property.

#### 6.1.10 State Leaking Underground Storage Tanks

The DOH Underground Storage Tank (UST) Program maintains a listing of all reported leaks and releases from USTs. The Subject Property was not identified as a leaking underground storage tank (LUST) facility. The database search identified six (6) LUST facilities within a 0.5-mile radius of the Subject Property.

#### 6.1.11 State Registered Underground Storage Tanks

The DOH Underground Storage Tank (UST) Program registration system tracks known and registered UST systems. The Subject Property was not identified as a UST facility. The database search identified one (1) UST facility located on potential adjoining property with respect to the Subject Property.

#### 6.1.12 State Institutional Control Registry

Institutional Controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on a site. The State Institutional Control listing includes Voluntary Response Program and Brownfields sites with institutional controls in place. The Subject Property was not identified as having institutional controls in place.

#### 6.1.13 State Voluntary Cleanup/Response Sites

The Hawai'i Voluntary Response Program (VRP) was created on July 7, 1997 by amendments made to Hawaii's Environmental Response Law (ERL). The purpose of the VRP is to streamline the cleanup process in a way that will encourage prospective developers, lenders, and purchasers to voluntarily cleanup properties. The VRP facilitates the cleanup process and, in certain situations, provides relief from the strict liability provisions of the Federal CERCLA and Hawai'i ERL. The Subject Property was not identified as a VRP site. The database search did not identify any VRP sites located within a 0.5-mile radius of the Subject Property.

#### 6.1.14 State Brownfields

A Brownfields site is land which the expansion, redevelopment, or reuse of may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant. The Subject Property was not identified as a Brownfields site. The database search did identify one (1) Brownfields site within a 0.5-mile radius of the Subject Property. Upon review of Department of Health files, it was determined that the Subject Property was included in the Sand Island Brownfields site, which is further discussed in Section 5.1.3.

#### 6.1.15 Unmappable/Orphan Sites

Eleven (11) unmappable sites were identified in the Orphan Summary of the EDR Report. Unmappable sites are not plotted due to poor or inadequate address information. Due to the inaccurate or incomplete information provided by the respective agency, these sites cannot be plotted with confidence. Review of the addresses and site names coupled with ETC site reconnaissance findings indicated that the Subject Property was not identified in the Orphan Summary of the database report. Two (2) sites were identified in the Orphan Summary that appeared to be on adjacent sites to the Subject Property.

#### 6.2 Additional Environmental Record Sources

The EDR database also included a number of other regulatory databases that are not specified by the ASTM Practice. The EDR database did not identify the Subject Property in any of the following databases:

- ODI – Open Dump Inventory
- DEBRIS REGION 9 – Torres Martinez Reservation Illegal Dump Site Locations
- INDIAN ODI – Report on the Status of Open Dumps on Indian Lands
- US CDL – Clandestine Drug Labs
- US HIST CDL – National Clandestine Laboratory Register
- LIENS 2 – CERCLA Line Information
- HMRIS – Hazardous Materials Information Reporting System
- SPILLS – Release Notifications
- DOT OPS – Incident and Accident Data
- FUDS – Formerly Used Defense Sites
- CONSENT – Superfund (CERCLA) Consent Decrees
- ROD – Records of Decision
- UMTRA – Uranium Mill Tailings Sites
- MINES – Mines Master Index File
- TRIS – Toxic Chemical Release Inventory System
- TSCA – Toxic Substances Control Act
- FTTS – FIFRA/TSCA Tracking System
- HIST FTTS – FIFRA/TSCA Tracking System Administrative Case Listing
- SSTS – Section 7 Tracking Systems
- PADS – PCB Activity Database System
- MLTS – Material Licensing Tracking System
- RADINFO – Radiation Information Database



RAAATS – RCRA Administrative Action Tracking System  
 DRYCLEANERS – Permitted Drycleaner Facility Listing  
 INDIAN RESERV – Indian Reservations  
 SCRD DRYCLEANERS – State Coalition for Remediation of Drycleaners  
 PCB TRANSFORMER – PCB Transformer Registration Database  
 EPA WATCH LIST – EPA WATCH LIST  
 US FIN ASSUR – Financial Assurance Information  
 2020 COR ACTION – 2020 Corrective Action Program List  
 LEAD SMELTERS – Lead Smelter Sites  
 COAL ASH EPA – Coal Combustion Residues Surface Impoundments List  
 COAL ASH DOE – Steam-Electric Plan Operation Data  
 PRP – Potentially Responsible Parties  
 Manufactured Gas Plants – EDR Proprietary Manufactured Gas Plants  
 EDR US Hist Auto Stat – EDR Exclusive Historic Gas Stations  
 EDR US Hist Cleaners – EDR Exclusive Historic Dry Cleaners  
 HIRGA LF – Recovered Government Archive Solid Waste Facilities List  
 HIRGA LUST – Recovered Government Archive Leaking Underground Storage Tank  
 HI RGA HWS - Recovered Government Archive State Hazardous Waste Facilities List

**6.3 Historical Use Information on the Subject and Adjoining Properties**

Historical uses of the Subject Property and adjoining properties were investigated through the review of documentation available from public land records and State of Hawaii archived information. In addition, available aerial photographs, plat maps, Sanborn maps, and building permits were reviewed.

**6.3.1 Aerial Photograph Review**

Aerial photographs from the EDR Aerial Photo Decade Package were reviewed. A total of eight (8) aerial photographs were found that included the Subject Property. These photographs were dated 1952, 1968, 1976, 1978, 1985, 1992, 2000 and 2004.

The Subject Property and the majority of the surrounding area appear undeveloped in the 1952 and 1968 aerial photographs. However, east of the Subject Property, there are several structures and a roadway that appear to be used for shipping purposes.

Review of the 1976 and 1978 aerial photographs indicated that the Subject Property appeared similar to the 1968 aerial photograph with no significant changes. The area to the west of the Subject Property appears to include a parking area and multiple boat docks. The area to the east of the Subject Property has been developed into a commercial shipping operation that appears similar Matson’s current use of the adjacent site. An apparent wastewater treatment facility was visible to the south of the Subject Property.

The 1985 and 1992 aerial photographs appear similar to the 1978 aerial photograph. However, the boat docks are no longer visible that were previously located west of the Subject Property.

In the 2000 aerial photograph, the northern portion of the Subject Property appears to be developed with paved areas, several structures, and a boat dock. The surrounding areas appear similar to the 1992 aerial photograph with the exception of the area to the west of the Subject Property which has been developed to include a paved parking area and apparent boat launch site.

The 2004 aerial photograph appears similar to the 2000 aerial photograph with no significant changes.

**6.3.2 Fire Insurance Maps**

ETC contracted EDR to conduct a search of Sanborn fire insurance maps for the Subject Property. The search included an extensive review of the Library of Congress and University Publications of America map collections as well as the EDR Private Collection. There were no Sanborn maps available for the Subject Property in the ERIIS Historical Map Collection. The no coverage letter is provided in Appendix III.

**6.3.3 Property Tax Files and Land Title Records**

ETC conducted a limited chain of title search of the Subject Property at the City and County of Honolulu Real Property Tax office. Further, ETC has reviewed the October 2000 *Phase I ESA* prepared by Ecology and Environment, Inc. which discussed the December 1986 *Final Report on Public Land Trust, Legislative Auditor of the State of Hawaii, Honolulu, Hawaii Report No. 86-17*. The information presented is a combination of those two data sources. ETC is not a professional title search company and does not warrant the completeness or accuracy of the information provided, but considers the data useful in screening the Subject Property for environmentally suspect owners or lessees.

The current owner of the Subject Property is the State of Hawaii, Department of Transportation, Harbors Division and it appears that the Department of Land and Natural Resources (DLNR) have had control and management of the area as a part of the Sand Island State Recreational Area since 1976.

The Subject Property’s TMKs have historically varied in size and owners / managers have included the United States of America War Department (1902 – 1946), Territory of Hawaii (1946 – 1963), State of Hawaii (1963 – 1993), and State of Hawaii, Department of Transportation, Airports Division Bulk Fuel Site (1969 – present).

#### 6.3.4 Building Permit Records

A review of available building permits issued by the City and County of Honolulu indicated that the permits issued pertained to the Subject Property for new building construction, electrical, plumbing, and repairs.

#### 7.0 SITE RECONNAISSANCE

ETC performed a site reconnaissance on December 8, 2014 and January 16, 2015 in order to complete a visual survey to identify the use and/or storage of hazardous materials.

#### 7.1 Methodology and Limiting Conditions

ETC personnel performed the site reconnaissance by systematically inspecting all accessible areas of the Subject Property. ETC observed the portion of the Subject Property that includes Keehi Lagoon from the land; however, were not able to inspect the areas beneath the water surface.

#### 7.2 General Site Setting

The Subject Property consists of approximately 11.2 acres, which includes 9.5 acres of land and 1.7 acres of nearshore waters located at 10 Sand Island Access Road in Honolulu, Hawaii. The Subject Property is located on Sand Island, a man-made island off the south-central coast of Oahu and is identified by TMKs (1) 1-5-041: Parcels 6 (portion), 334 (portion), and 130 (portion). Parcel 6 includes the two-story SOEST / METC building, dock, and storage sheds. Parcel 334 includes undeveloped land that consists of areas of vegetation and exposed soil. Parcel 130 includes the access road that joins the SOEST / METC facility with Sand Island Access Road. A map of the Subject Property is included in Appendix I. Photographic documentation of ETC's site reconnaissance is included in Appendix II.

#### 7.3 Exterior Observations

Visual inspection of the access road indicated that the groundcover consists of asphalt pavement. Other than *de minimis* oil staining typically associated with roadways, no evidence of hazardous material or petroleum staining was observed on the access road.

Visual inspection of the southern portion of the Subject Property indicated that the groundcover generally consists of vegetation and areas of exposed soil. Solid waste items such as plastic bottles and tires were observed in several locations, but did not appear to have impacted the Subject Property.

Visual inspection of the SOEST / METC facility on the northern portion of the Subject Property indicated that the groundcover generally consists of asphalt and concrete pavement as well as the warehouse building and associated sheds. Other than *de minimis* oil staining typically associated with parking areas, no evidence of hazardous material or petroleum staining was observed on the asphalt and/or concrete groundcover of the parking and exterior storage areas of the Subject Property. Storm drains were observed throughout the exterior areas of the Subject Property. Potable water and sewer system infrastructure is reportedly provided by the City and County of Honolulu.

### 7.3.1 USTs /ASTs

A visual inspection for the presence of USTs or aboveground storage tanks (ASTs) was also conducted. A UST is reportedly associated with an oil water separator and floor drains in the SOEST / METC maintenance shop. However, the UST is reportedly likely to be minimally filled since there are no operations active or continuous operations conducted in this area that would cause a discharge to those floor drains; and has not needed to be serviced since its installation. A propane AST is present on the western side of the SOEST / METC building. Further the SOEST / METC facility includes a diesel generator. No visible staining or indications of release were observed around these observed items. No other visual evidence (i.e. vent or fill pipes, dispensers, etc.) of the presence of USTs or ASTs was observed.

### 7.4 Interior Observations

ETC personnel inspected all accessible areas of the Subject Property building including storage rooms, maintenance areas, offices, and classrooms. The interior survey of the SOEST / METC building indicated that limited quantities of hazardous materials, such as epoxy, acetone, oils, paints, and other maintenance materials were stored within secondary containment. Limited, incidental staining was noted on the pavement near the hazardous materials flammable storage locker and container spill pallet area. A solvent parts washer was observed in the maintenance shop. The parts washer appeared to be in good condition with no visible leaks or spills. The floor drain located in the groundwater maintenance shop reportedly discharges to the facility oil water separator and UST holding tank. The remaining floor drains are limited to the restroom facilities, which reportedly discharge to the sanitary sewer system.

### 7.5 Dielectric Fluid Containing Equipment

A visual inspection for hydraulic and electrical equipment or electrical components that use fluid that may contain PCBs was conducted. Fluorescent light ballasts were observed in the interior areas of Subject Property buildings and no evidence of a release was noted. One HECO transformer was observed and appeared to be in new condition. The concrete pad for the transformer appeared to have staining and the vegetation around the concrete appeared to be stressed. Based on interviews detailed in Section 8.0, the staining was a result of an accident in which the former transformer was damaged.

## 8.0 INTERVIEWS

The objective of the interviews is to obtain information from past and present owners, operators, and occupants of the Subject Property to identify potential RECs in connection with the Subject Property.

### 8.1 Interview with Subject Property Owner/Occupant

#### Mr. Mark Kimura, Administrative Professional Technician and Mr. Keala Chock, Dean of Transportation and Trades from Honolulu Community College, Subject Property Occupants

Mr. Kimura and Mr. Chock provided ETC with the following information regarding the Subject Property:

- Mr. Kimura's knowledge of the Subject Property dates back approximately 19 years and Mr. Chock's knowledge of the Subject Property dates back approximately 2 years.
- The Marine Education Training Center (METC) has been on the Subject Property since 1994 and is used for a two-year degree program on small vessel fabrication and repair. The former use of the Subject Property is not known.
- There are drains inside the maintenance shop that connect to an oil water separator and underground storage tank (UST), which was installed in 1995; however, it has never been emptied or maintained because there is no discharge generated by maintenance activities. All other interior drains (e.g. bathroom facilities) discharge to the City and County of Honolulu sanitary sewer system. There are storm drains in the parking lot that discharge directly to Keeki Lagoon.
- Potable water and sewer system infrastructure is provided by the City and County of Honolulu.
- There is one electrical transformer on the Subject Property owned by HECO.
- There facility includes an air conditioning system and hot water heater.
- There is a propane aboveground storage tank (AST) on the Subject Property, which is filled by Hawaii Gas. Additionally, there is a small diesel tank associated with the facility generator.
- There is a paint booth on the Subject Property; however, the use is minimal and generally for educational purposes. Sand blasting is not conducted on the Subject Property.
- The maintenance activities include the use of chemicals such as epoxy, acetone, oils, and paints. The waste generated by the use of these chemicals is minimal (less than 55-gallons annually).

- The HECO transformer on-site was previously damaged in an accident. As a result the damaged transformer was removed and replaced with the current new transformer. The former transformer cleanup and replacement was conducted by HECO.
- There has been no known burying or burning of any waste or rubbish on the Subject Property.
- There are no known waste or chemical pipelines that traverse the Subject Property.
- There have been no damaged or discarded industrial batteries, pesticides, paints or other chemicals stored or used at the Subject Property in volumes greater than 50 gallons.
- There are no environmental liens or governmental notifications relating to past or recurrent violations of environmental laws with respect to the Subject Property.
- The Subject Property and adjoining properties were not used as a gas station, printing facility, dry cleaner, photo developing, laboratory, junkyard, landfill activity, waste TSDF, or recycling facility.
- The Subject Property does not discharge wastewater on or adjacent to the site other than storm water.
- There is no known runoff from the adjacent properties onto the Subject Property.
- There are no current or former pits, ponds, or lagoons located on the Subject Property in connection with waste treatment or disposal.
- The property across Sand Island Access Road is used as a container yard.
- The Subject Property and adjoining properties are not used as a printing facility, dry cleaner, photo developing, laboratory, junkyard, landfill, gasoline station, waste TSDF, or recycling facility.
- The Subject Property and surrounding areas were historically created from dredged material.

## 9.0 FINDINGS AND OPINIONS

### 9.1 Site Description

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

### 9.2 User Provided Information

#### 9.2.1 Required Information

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

#### 9.2.2 Other Information Pertaining to the Subject Property

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

### 9.3 Document Review

Review of the 1991 MECI *Phase I Property Environmental Assessment* indicated that hazardous materials (e.g. used oil, batteries) were noted on the Subject Property and that their use resulted in minor soil staining. During ETC's site reconnaissance, neither these materials nor the stained soil were observed. ETC concludes that the hazardous materials have since been removed and/or no longer pose a reasonable risk of impacting the Subject Property. Therefore, the former improper storage of hazardous materials is considered a *de minimis* condition.

Review of the 2000 E&E *Phase I ESA* indicated that the entire area had been used to dispose of solid waste since 1934. No obvious signs of solid waste dumping were identified during the site reconnaissance and two test pits dug on the Subject Property as a part of the 2001 *Brownfields ESA* did not reveal any evidence of solid waste. However, there remains the possibility that buried solid waste may still be present on the Subject Property. Review of the 2001 E&E *Brownfields ESA* indicated that investigation activities included the analysis of soil from two test pits on the southern portion of the Subject Property. Analytical results indicated that detectable concentrations of heavy metals, SVOCs, VOCs, and pesticides were found in one or more samples from the Subject Property. Specifically, test Pit 2, located on the southwestern portion of the Subject Property and east of the access road, contained elevated concentrations of benzo(a)pyrene. Visual observations of staining in the test pit(s) was also noted. Based on these findings the suspect buried solid waste and contaminants found during the previous environmental investigations is considered a REC.

#### 9.4 Records Review

##### 9.4.1 Standard Environmental Record Sources

###### **Federal NPL and Delisted NPL**

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

###### **Federal CERCLIS and CERCLIS NFRAP**

Upon review of the Towco Site (HID984468645), it was discovered that there had been releases of waste oil and lead acid battery fluid at the site; however, the Environmental Protection Agency concluded that no further action was necessary due to the low potential threat for exposure to the releases. Based on this information and the distance from the Subject Property, ETC concludes that there are no significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions.

###### **Federal RCRA CORRACTS**

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

###### **Federal RCRA (non-CORRACTS) TSD Facilities**

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

###### **Federal RCRA Generator**

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

###### **Federal Institutional Control/Engineering Control Registries**

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

###### **Federal ERNS**

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

###### **State Equivalent NPL and CERCLIS**

ETC's database review indicated that the 58 fifty-eight identified SHWS sites were either classified as "no further action" sites, are situated topographically downgradient or crossgradient from the Subject Property, and/or were too distant to pose a reasonable risk of impacting the Subject Property. No other significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

###### **State Landfill and/or Solid Waste Disposal**

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

###### **State Leaking Underground Storage Tanks**

Database review indicated that five (5) of the six (6) LUST sites are classified as "no further action" sites; disconfirmed releases; are situated topographically downgradient or crossgradient from the Subject Property; and/or are too distant to reasonably impact the Subject Property. ETC requested and reviewed LUST facility files for the *Matson Terminals & Maintenance (9-100801)* site, which is located adjacent and/or in close proximity to the Subject Property.

File review of *Matson Terminals & Maintenance (9-100801)*, located at 1411 Sand Island Access Road indicated that a release was observed after a 1,000-gallon used oil UST overflowed in April 1993 due to a faulty oil water separator which diverted storm water to the tank. It was estimated that 1,444 gallons were released to the environment and Matson was immediately able to recover about 46-53 percent of the released volume. Matson installed groundwater monitoring wells and has been conducting free product recovery and sampling efforts on a quarterly to semi-annual basis. The latest monitoring report stated that the free product appeared to be confined to wells immediately around the former UST. Based on these findings, ETC believes that contaminant migration from this facility does not pose a reasonable risk of impacting the Subject Property.

No other significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

###### **State Registered Underground Storage Tanks**

Database review identified one (1) UST facility located adjacent to the Subject Property. The *Matson Terminals & Maintenance (9-100801)* UST facility was discussed as part of the Leaking Underground Storage Tank findings section and therefore will not be repeated here. No other significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

###### **State Institutional Control Registry**

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

###### **State Voluntary Cleanup/Response Sites**

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.



### **State Brownfields**

Database review indicated that there was one (1) Brownfields site, *Sand Island* within 0.5 miles of the Subject Property. File review was discussed as a part of Section 9.3 and therefore will not be repeated here. No other significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

### **Unmappable/Orphan Sites**

Two (2) of the identified Orphan sites appeared to be located on adjacent properties with respect to the Subject Property. Request for file review for the *DLNR Buried Drum Site* revealed no documentation other than that from the database report, which stated that there was a release of 10 gallons of bitumuls that appeared to contaminate the soil and groundwater. The DOH has classified it as a low hazard priority and instituted a control to manage the contamination that prohibits excavation. The listed DOH Project Manager was contacted about the site; however, location information could not be determined due to poor geocoding. Due to the DOH's low risk ranking and the relatively minor amount of material released, ETC considers this a *de minimis* condition.

Review of the *Sand Island Off-Highway Vehicle* facility indicates that is located adjacent to the Sandbox BMX facility, which is also adjacent to the Subject Property. The EPA online database indicates that the violation noted was for the National Pollutant Discharge Elimination System (NDPES) permits under the Clean Water Act; however, there are no current violations. Therefore, due to the nature of NPDES violations and the lack of current violations, it can be assumed that the facility owner made the necessary corrections and it is not expected that the activities would pose an impact to the Subject Property. No other significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

### **9.4.2 Additional Environmental Record Sources**

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

### **9.4.3 Historical Use Information on the Subject and Adjoining Properties**

#### **Aerial Photograph Review**

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

#### **Fire Insurance Maps**

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

#### **Property Tax Files and Land Title Records**

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

### **Building Permits**

No significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

### **9.5 Site Reconnaissance**

Some solid waste was noted along the access road and undeveloped portion of the Subject Property. Although not considered an REC, the owners should attempt to remove and properly dispose of the waste items.

Limited, incidental staining was noted in the hazardous materials storage area on the pavement. Based on observations, this finding does not appear to pose an imminent risk of harm to public health or the environment and is not likely to be the subject of enforcement action if brought to the attention of appropriate governmental agencies. Therefore, this finding is considered a *de minimis* condition.

Fluorescent light ballasts that were observed throughout the interior areas of the Subject Property may contain PCBs; however, such ballasts were not observed to be leaking and are considered a *de minimis* condition.

The HECO transformer observed on the Subject Property was noted to be in new condition; however, there were signs of a previous release on the concrete pad. Due to the fact that HECO cleaned the release and replaced the transformer, the potential impact from this transformer and the former release to be a *de minimis* condition. No other significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

### **9.6 Interviews**

The interviewees noted that the HECO transformer had been damaged in an accident, which was discussed in Section 9.5 and therefore will not be repeated here. Interviewees also noted that the facility contained an oil water separator and UST to contain discharges from the ground floor METC maintenance shop floor drain; however, there have been minimal discharges to this drainage system since it was installed in 1995. Therefore, this finding is considered a *de minimis* condition. No other significant findings to indicate suspect RECs, historical RECs, or *de minimis* conditions were identified.

## 10.0 DATA GAPS

Data gaps, which are defined as the lack of or inability to obtain information required for this Phase I ESA despite good faith efforts by the environmental professional to gather such information were identified during this Phase I ESA. ETC identified the following data gaps:

- Historical records sources within five year intervals were not available for review. However, since all available historical records were reviewed (i.e. aerial photos, Sanborn Maps, Chain of Title, etc.), ETC concludes that this “data failure” does not represent a significant data gap.
- ETC did not observe the underwater portion of the Subject Property that includes Keehi Lagoon. While the surface of the water did not appear to be impacted, underwater portion of the Subject Property is not anticipated to be significantly impacted. In addition, it is suspected that any submerged land conditions would be similar to the conditions found during previous environmental investigations conducted on the Subject Property and surrounding areas. These investigations are documented and discussed in Section 5.0 and 9.3 and therefore will not be repeated here. Based on these assumptions, ETC concludes that this “data failure” does not appear represent a significant data gap.

## 11.0 CONCLUSIONS

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-13 of TMK (1)-5-041: Portion of Parcels 006, 130, 334, located at 10 Sand Island Access Road, Honolulu, Hawaii, the Subject Property. Any exceptions to, or deletions from, the ASTM Practice E1527-05/13 are described in Section 11.0 of this report. This assessment has revealed the following evidence of recognized environmental conditions in connection with the Subject Property:

- The suspect buried solid waste and contaminants found during previous environmental investigations conducted on the Subject Property and surrounding areas is considered a REC.

**12.0 DEVIATIONS AND ADDITIONAL SERVICES**

No client imposed constraints or additions were requested. No additional services were requested by ETC's Client. As such, there were no deviations and/or deletions from the ASTM Practice E1527-13 upon completion of this Phase I ESA.

**13.0 ENVIRONMENTAL PROFESSIONAL CERTIFICATION**

We declare that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

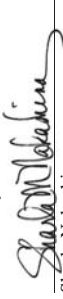
Prepared by:



Katie Davis  
Environmental Professional  
EnviroServices & Training Center, LLC

February 2015

Reviewed by:



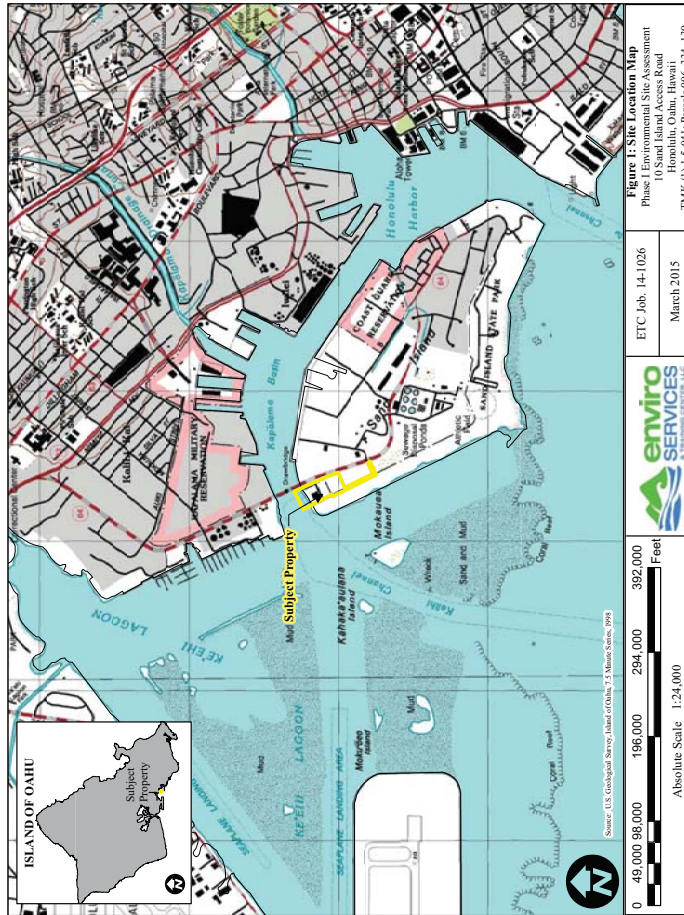
Sharla Nakashima  
Environmental Professional  
EnviroServices & Training Center, LLC

February 2015

#### 14.0 REFERENCES

- ASTM International. *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation E1527-13*.
- City and County of Honolulu, Department of Planning and Permitting, *Building Permit Records*.
- Ecology and Environment, Inc. October 2000. *Phase I Brownfields Environmental Site Assessment, Sand Island State Park*.
- Ecology and Environment, Inc. July 2001. *Brownfields Environmental Site Assessment, Sand Island State Park*.
- Environmental Data Resources, Inc., November 19, 2014. *The EDR Aerial Photo Decade Package*. Report Inquiry No. 4138072.5
- Environmental Data Resources, Inc., November 19, 2014. *The EDR Radius Map with GeoCheck*. Report Inquiry No. 4138072.2s.
- Environmental Data Resources, Inc., November 18, 2014. *Sanborn® Map Report*. Order No. 4138072.3.
- Macdonald, G.A., A.T. Abbot, and F.L. Peterson. 1983. *Volcanoes in the Sea*. University of Hawaii Press.
- Mink, John F. and Stephen L. Lau. February 1990. *Aquifer Identification and Classification for Oahu: Groundwater Protection Strategy for Hawaii*.
- Muranaka Environmental Consultants, Inc. October 1991. *Phase I Report, Environmental Property Assessment, Proposed Marine Education Training Center*.
- Muranaka Environmental Consultants, Inc. October 1991. *Hazardous Materials and Regulated Waste Survey for Marine Education Training Center*.
- State of Hawaii Department of Health, Hazard Evaluation and Emergency Response Office records.
- State of Hawaii Department of Health, Solid and Hazardous Waste Branch records.
- State of Hawaii Taxation Map Bureau, Tax Map Key (1) 1-5-041:006 (Portion), 334 (Portion), and 130 (Portion)
- U.S. Department of Agriculture Soil Conservation Service. 1972. *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii*.
- U.S. Department of Interior Geological Survey. 1998. Honolulu Quadrangle, 7.5 Minute Series (Topographic Maps).

#### APPENDIX I FIGURES





APPENDIX II  
PHOTOGRAPHIC DOCUMENTATION



Photograph 1: View to the east of the Subject Property access road.



Photograph 2: View to the north of the Subject Property access road.



Photograph 3: Undeveloped area on the southern portion of the Subject Property.



ETC Job. 14-1026  
Page 1  
March 2015

**Photographic Documentation**  
Phase I Environmental Site Assessment  
10 Sand Island Access Road  
Honolulu, Oahu, Hawaii  
TMK (1) 1-5-041; Parcels 006, 130, 334



Photograph 4: Undeveloped area on the southern portion of the Subject Property.



Photograph 5: Undeveloped area on the southern portion of the Subject Property. SOEST /METC building with solar panels visible to the north.



Photograph 6: Undeveloped area on the southern portion of the Subject Property.



Photograph 7: Undeveloped area on the southern portion of the Subject Property.



Photograph 8: Solid waste visible on the undeveloped southern portion of the Subject Property.



Photograph 9: Solid waste visible on the undeveloped southern portion of the Subject Property.



ETC Job. 14-1026  
Page 2  
March 2015

**Photographic Documentation**  
Phase I Environmental Site Assessment  
10 Sand Island Access Road  
Honolulu, Oahu, Hawaii  
TMK (1) 1-5-041; Parcels 006, 130, 334

ETC Job. 14-1026  
Page 3  
March 2015

**Photographic Documentation**  
Phase I Environmental Site Assessment  
10 Sand Island Access Road  
Honolulu, Oahu, Hawaii  
TMK (1) 1-5-041; Parcels 006, 130, 334



Photograph 10: Table with containers of liquid in the undeveloped area on the southern portion of the Subject Property.



Photograph 11: Solid waste visible on the undeveloped southern portion of the Subject Property.



Photograph 12: Solid waste visible on the undeveloped southern portion of the Subject Property.



Photograph 13: Paved area of the SOEST / METC on the northern portion of the Subject Property.



Photograph 14: SOEST / METC boat dock.



Photograph 15: SOEST / METC boat and material storage area.



ETC Job. 14-1026  
Page 4  
March 2015

**Photographic Documentation**  
Phase I Environmental Site Assessment  
10 Sand Island Access Road  
Honolulu, Oahu, Hawaii  
TMK (1) 1-5-041; Parcels 006, 130, 334



ETC Job. 14-1026  
Page 5  
March 2015

**Photographic Documentation**  
Phase I Environmental Site Assessment  
10 Sand Island Access Road  
Honolulu, Oahu, Hawaii  
TMK (1) 1-5-041; Parcels 006, 130, 334





Photograph 16: One of the SOEST / METC classrooms.



Photograph 17: SOEST / METC fabrication and maintenance shop.



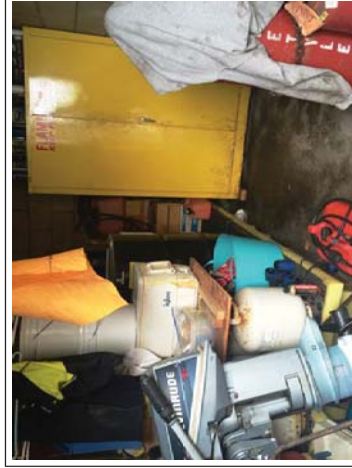
Photograph 18: Boat equipment storage. Note: 55-gallon drums pictured are empty.




Photograph 19: SOEST / METC generator with diesel tank.



Photograph 20: Solvent parts washer in the SOEST / METC maintenance shop.



Photograph 21: Hazardous materials stored within secondary containment at the SOEST / METC facility. Minor staining was noted on the paved floor.



ETC Job. 14-1026	<b>Photographic Documentation</b> Phase I Environmental Site Assessment 10 Sand Island Access Road Honolulu, Oahu, Hawaii TMK (1) 1-5-041; Parcels 006, 130, 334
Page 6	
March 2015	



ETC Job. 14-1026	<b>Photographic Documentation</b> Phase I Environmental Site Assessment 10 Sand Island Access Road Honolulu, Oahu, Hawaii TMK (1) 1-5-041; Parcels 006, 130, 334
Page 7	
March 2015	



Photograph 22: Oil water separator and underground storage tank.



Photograph 25: HECO transformer that appeared to be in good condition.



Photograph 23: Floor drains in the maintenance shop that lead to the oil water separator.



Photograph 26: SOEST / METC air conditioning unit.



Photograph 24: Storm drain at entrance to the SOEST / METC facility.



Photograph 27: SOEST / METC propane tank.



ETC Job. 14-1026  
Page 8  
March 2015

**Photographic Documentation**  
Phase I Environmental Site Assessment  
10 Sand Island Access Road  
Honolulu, Oahu, Hawaii  
TMK (1) 1-5-041; Parcels 006, 130, 334



ETC Job. 14-1026  
Page 9  
March 2015

**Photographic Documentation**  
Phase I Environmental Site Assessment  
10 Sand Island Access Road  
Honolulu, Oahu, Hawaii  
TMK (1) 1-5-041; Parcels 006, 130, 334





Photograph 28: SOEST / METC eastern parking lot.



Photograph 31: Sandbox BMX facility on southwestern adjacent property.



Photograph 29: Boat launch parking lot on western adjacent property.



Photograph 32: Sandbox BMX facility on southwestern adjacent property.



Photograph 30: Bathroom facilities for boat launch park on western adjacent property.



Photograph 33: Sandbox BMX facility on southwestern adjacent property.



ETC Job. 14-1026

Page 10

March 2015

**Photographic Documentation**

Phase I Environmental Site Assessment  
10 Sand Island Access Road  
Honolulu, Oahu, Hawaii

TMK (1) 1-5-041; Parcels 006, 130, 334

ETC Job. 14-1026

Page 11

March 2015

**Photographic Documentation**

Phase I Environmental Site Assessment  
10 Sand Island Access Road  
Honolulu, Oahu, Hawaii

TMK (1) 1-5-041; Parcels 006, 130, 334

APPENDIX III  
RESEARCH DOCUMENTATION

**SOEST Facility**  
Sand Island Access Road  
Honolulu, HI 96819

Inquiry Number: 4138072.3  
November 18, 2014

Certified Sanborn® Map Report



5 Armstrong Road, 4th Floor  
Shelton, Connecticut 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

## Certified Sanborn® Map Report

11/18/14

**Site Name:**  
SOEST Facility  
Sand Island Access Road  
Honolulu, HI 96819

**Client Name:**  
Enviro Svcs. and Tmg. Center  
505 Ward Avenue  
Honolulu, HI 96814

**EDR Inquiry #** 4138072.3

**Contact:** Lisa Baxter



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Enviro Svcs. and Tmg. Center were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources, Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting [www.edrnet.com/sanborn](http://www.edrnet.com/sanborn).

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

### Certified Sanborn Results:

**Site Name:** SOEST Facility  
**Address:** Sand Island Access Road  
**City, State, Zip:** Honolulu, HI 96819  
**Cross Street:**  
**P.O. #** NA  
**Project:** 14-1026  
**Certification #** FC3E-4006-9BC7



Sanborn® Library search results  
Certification # FC3E-4006-9BC7

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

The Sanborn Library, LLC Since 1868™

### UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

### Limited Permission To Make Copies

Enviro Svcs. and Tmg. Center (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

### Disclaimer - Copyright and Trademark notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be included from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, FOR ANY INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment, performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2014 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

**SOEST Facility**  
Sand Island Access Road  
Honolulu, HI 96819  
  
Inquiry Number: 4138072.5  
November 19, 2014

# The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th Floor  
Shelton, Connecticut 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

## EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

### Date EDR Searched Historical Sources:

Aerial Photography November 19, 2014

### Target Property:

Sand Island Access Road  
Honolulu, HI 96819

Year	Scale	Details	Source
1952	Aerial Photograph. Scale: 1"=750'	Flight Date: April 03, 1952	EDR
1968	Aerial Photograph. Scale: 1"=500'	Flight Date: February 06, 1968	EDR
1976	Aerial Photograph. Scale: 1"=500'	Flight Date: January 01, 1976	USGS
1978	Aerial Photograph. Scale: 1"=500'	Flight Date: January 01, 1978	USGS
1985	Aerial Photograph. Scale: 1"=500'	Flight Date: April 29, 1985	EDR
1992	Aerial Photograph. Scale: 1"=500'	Flight Date: January 01, 1992	EDR
2000	Aerial Photograph. Scale: 1"=500'	DOQQ - acquisition dates: January 30, 2000	USGS/DOQQ
2004	Aerial Photograph. Scale: 1"=500'	Flight Date: February 16, 2004	EDR

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

### Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR THE ADEQUACY OF THE INFORMATION PROVIDED HEREIN. ENVIRONMENTAL DATA RESOURCES, INC. SHALL BE RESPONSIBLE FOR ANY LOSS OF DAMAGE, INCLUDING WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES, ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report AS IS. Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2014 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.





INQUIRY #: 4138072.5  
YEAR: 1968  
↑ N  
EDR  
= 500'



INQUIRY #: 4138072.5  
YEAR: 1952  
↑ N  
EDR  
= 750'





INQUIRY #: 4138072.5  
YEAR: 1978  
= 500'

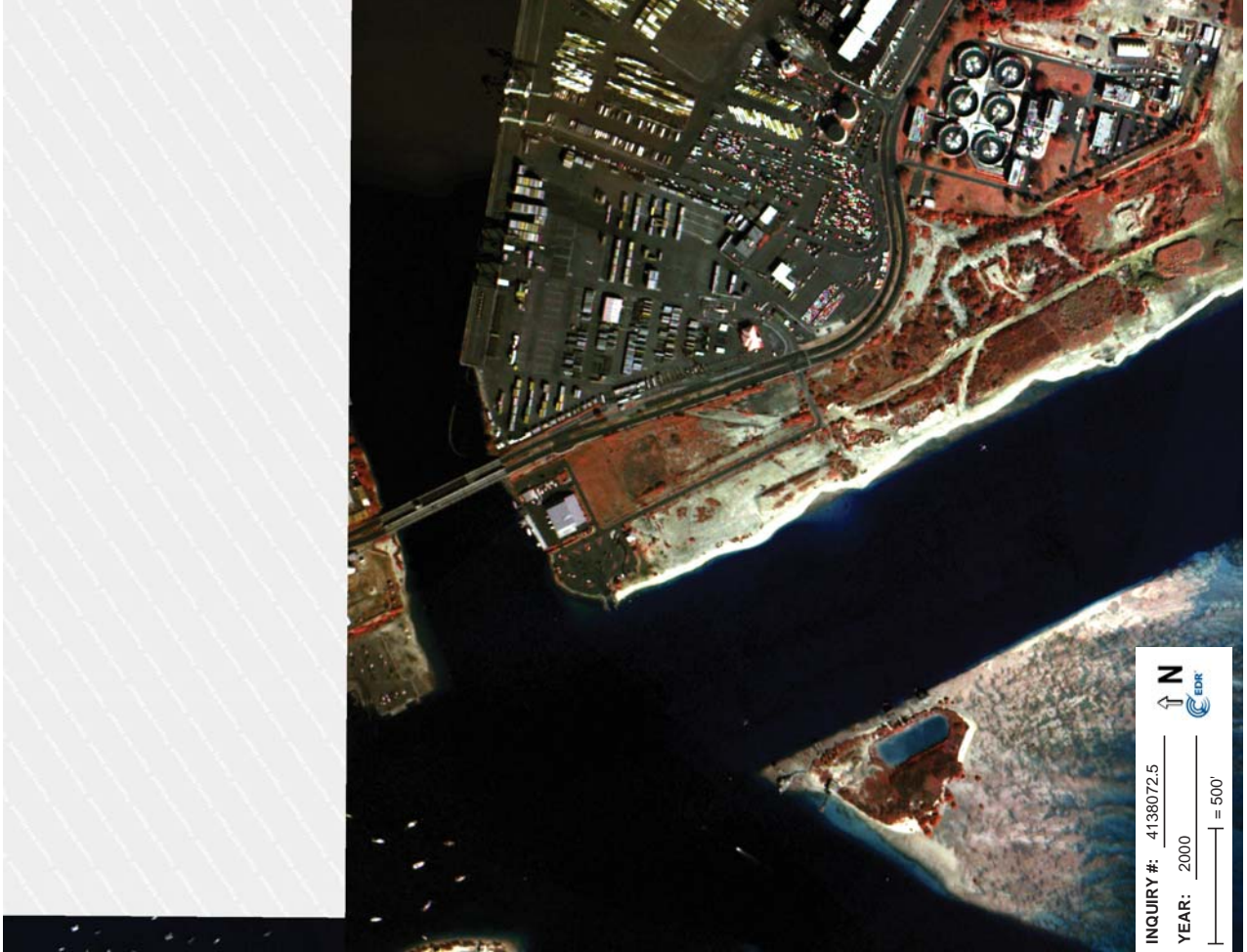


INQUIRY #: 4138072.5  
YEAR: 1976  
= 500'









**ENVIRONMENTAL ASSESSMENT USER QUESTIONNAIRE**

DATE:  
JOB NAME: PHASE I ESA  
FACILITY NAME & ADDRESS: METC/SOEST FACILITY: 10 Sand Island Parkway, Honolulu, HI 96819

*In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"), the user must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete.*

1. NAME/TITLE/PHONE NUMBER OF PERSON COMPLETING FORM.  
**Maynard Young, Manager, Facilities Planning and Design  
(808) 956-4071**
2. JOB DESCRIPTION  
**Project Manager for Capital Projects**
3. REASON FOR CONDUCTING PHASE I ESA.  
**Requisite to obtain lease from DLNR**
4. ARE TITLE RECORDS AVAILABLE? IF SO, PLEASE PROVIDE ETC WITH COPIES OF THESE RECORDS.  
**No**
5. CONTACT INFORMATION – PLEASE PROVIDE CONTACT INFORMATION (NAME, PHONE NUMBER, ETC.) FOR THE FOLLOWING INDIVIDUALS IF AVAILABLE.  
  
**SUBJECT PROPERTY MANAGER:**  
Derek Inatuku, Vice Chancellor for Administrative Services  
Honolulu Community College, Phone: (808) 845-9123  
**SUBJECT PROPERTY OCCUPANT:**  
Current Occupant: Marine Education & Training Center  
Honolulu Community College  
**SUBJECT PROPERTY OWNER:**  
Department of Land and Natural Resources  
State of Hawaii

6. ARE YOU AWARE OF ANY ENVIRONMENTAL CLEANUP LIENS AGAINST THE PROPERTY THAT ARE FILED OR RECORDED UNDER FEDERAL, TRIBAL, STATE OR LOCAL LAW?

**No**

7. ARE YOU AWARE OF ANY ACTIVITY AND LAND USE LIMITATIONS (AULS), SUCH AS ENGINEERING CONTROLS, LAND USE RESTRICTIONS OR INSTITUTIONAL CONTROLS THAT ARE IN PLACE AT THE SITE AND/OR HAVE BEEN FILED OR RECORDED IN A REGISTRY UNDER FEDERAL, TRIBAL, STATE OR LOCAL LAW?

**No**

8. AS THE USER OF THIS ENVIRONMENTAL SITE ASSESSMENT (ESA), DO YOU HAVE ANY SPECIALIZED KNOWLEDGE OR EXPERIENCE RELATED TO THE PROPERTY OR NEARBY PROPERTIES? FOR EXAMPLE, ARE YOU INVOLVED IN THE SAME LINE OF BUSINESS AS THE CURRENT OR FORMER OCCUPANTS OF THE PROPERTY OR AN ADJOINING PROPERTY SO THAT YOU WOULD HAVE SPECIALIZED KNOWLEDGE OF THE CHEMICALS AND PROCESSES BY THIS TYPE OF BUSINESS?

**No**

9. DOES THE PURCHASE PRICE BEING PAID FOR THIS PROPERTY REASONABLY REFLECT THE FAIR MARKET VALUE OF THE PROPERTY? IF YOU CONCLUDE THAT THERE IS A DIFFERENCE, HAVE YOU CONSIDERED WHETHER THE LOWER PURCHASE PRICE IS BECAUSE CONTAMINATION IS KNOWN OR BELIEVED TO BE PRESENT AT THE PROPERTY?

**Property to be leased to the University.  
Currently lease amount unknown.**

APPENDIX IV  
REGULATORY RECORDS DOCUMENTATION (EDR Radius Map Report)

10. ARE YOU AWARE OF COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION ABOUT THE PROPERTY THAT WOULD HELP THE ENVIRONMENTAL PROFESSIONAL TO IDENTIFY CONDITIONS INDICATIVE OF A RELEASES OR THREA TENED RELEASES? FOR EXAMPLE, AS THE USER,  
**No**
11. DO YOU KNOW THE PAST USES OF THE PROPERTY? IF SO, PLEASE DESCRIBE.  
**No**
12. DO YOU KNOW OF SPECIFIC CHEMICALS THAT ARE PRESENT OR ONCE WERE PRESENT AT THE PROPERTY? IF SO, PLEASE DESCRIBE.  
**No**
13. DO YOU KNOW OF SPILLS OR OTHER CHEMICAL RELEASES THAT HAVE TAKEN PLACE AT THE PROPERTY? IF SO, PLEASE DESCRIBE.  
**No**
14. DO YOU KNOW OF ANY ENVIRONMENTAL CLEANUPS THAT HAVE TAKEN PLACE AT THE PROPERTY? IF SO, PLEASE DESCRIBE.  
**No**
15. AS THE USER OF THIS ESA, BASED ON YOUR KNOWLEDGE AND EXPERIENCE RELATED TO THE PROPERTY, ARE THERE ANY OBVIOUS INDICATORS THAT POINT TO THE PRESENCE OR LIKELY PRESENCE OF CONTAMINATION AT THE PROPERTY?  
**No**
16. ANY ADDITIONAL CONCERNS REGARDING THE PROPERTY OR ANY ADJOINING PROPERTIES?  
**No**

SIGNATURE  DATE 2/24/15  
\*\*Please fax or email completed questionnaire at your earliest convenience to: Ms. Sharla Nakashima, EnviroServices & Training Center, LLC, 505 Ward Ave., Suite 202, Honolulu, HI, tel: 839-7222, fax: 839-4455, sharla@gobote.com



**SOEST Facility**  
 Sand Island Access Road  
 Honolulu, HI 96819  
 Inquiry Number: 4138072.2s  
 November 19, 2014

**The EDR Radius Map™ Report with GeoCheck®**

**TABLE OF CONTENTS**

<u>SECTION</u>	<u>PAGE</u>
Executive Summary.....	ES1
Overview Map.....	2
Detail Map.....	3
Map Findings Summary.....	4
Map Findings.....	7
Orphan Summary.....	148
Government Records Searched/Data Currency Tracking.....	GR-1
 <u>GEOCHECK ADDENDUM</u>	
Physical Setting Source Addendum.....	A-1
Physical Setting Source Summary.....	A-2
Physical Setting SSURGO Soil Map.....	A-5
Physical Setting Source Map.....	A-7
Physical Setting Source Map Findings.....	A-9
Physical Setting Source Records Searched.....	PSGR-1

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

**Disclaimer - Copyright and Trademark Notice**  
 This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, ACCURACY, COMPLETENESS, OR FREEDOM FROM DEFAMATION, TORTIOUS OR OTHERWISE, AND ANY OTHER WARRANTIES, INCLUDING WITHOUT LIMITATION, SPECIAL, INCIDENTAL, ACCIDENTAL OR OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, or other information contained in this report are based on the information provided to EDR and are not intended to be used for any other purpose. EDR does not warrant, represent, or predict the accuracy or completeness of the information provided to EDR. EDR is not responsible for any errors or omissions in this report, and should they be interpreted as a forecast or prediction of future environmental risk for any property (only at Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.  
 Copyright 2014 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission. EDR and its logos (including Sparbom and Sparbom Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

6 Armstrong Road, 4th floor  
 S. Waukegan, IL 60087  
 Toll Free: 800.352.0050  
 www.edrnet.com

 Environmental Data Resources Inc

## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

### TARGET PROPERTY INFORMATION

#### ADDRESS

SAND ISLAND ACCESS ROAD  
HONOLULU County, HI 96819

#### COORDINATES

Latitude (North): 21° 31' 18.000 - 21° 18' 42.48"  
Longitude (West): 157° 58' 76.000 - 157° 53' 15.36"  
Universal Transverse Mercator: Zone 8  
UTM X (Meters): 613375.8  
UTM Y (Meters): 2386924.2  
Elevation: 3 ft. above sea level

#### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 21157-C8 PEARL HARBOR, HI  
Most Recent Revision: Not reported  
East Map: 21157-C7 HONOLULU, HI  
Most Recent Revision: Not reported

#### 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 search radius around the target property for the following databases:

#### STANDARD ENVIRONMENTAL RECORDS

##### *Federal NPL site list*

NPL..... National Priority List  
Proposed NPL..... Proposed National Priority List Sites

## EXECUTIVE SUMMARY

NPL LIENS..... Federal Superfund Liens

##### *Federal Delisted NPL site list*

Delisted NPL..... National Priority List Deletions

##### *Federal CERCLIS list*

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System  
FEDERAL FACILITY..... Federal Facility Site Information listing

##### *Federal RCRA CORRACTS facilities list*

CORRACTS..... Corrective Action Report

##### *Federal RCRA non-CORRACTS TSD facilities list*

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

##### *Federal RCRA generators list*

RCRA-LOG..... RCRA - Large Quantity Generators

##### *Federal Institutional controls / engineering controls registries*

US ENG CONTROL..... Engineering Controls Sites List  
US INST CONTROL..... Sites with Institutional Controls  
LUCIS..... Land Use Control Information System

##### *Federal ERNS list*

ERNS..... Emergency Response Notification System

##### *State and tribal landfill and/or solid waste disposal site lists*

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

##### *State and tribal leaking storage tank lists*

INDIAN LLUST..... Leaking Underground Storage Tanks on Indian Land

##### *State and tribal registered storage tank lists*

INDIAN UST..... Underground Storage Tanks on Indian Land  
FEMA UST..... Underground Storage Tank Listing

##### *State and tribal voluntary cleanup sites*

INDIAN VCP..... Voluntary Cleanup Priority Listing

##### *State and tribal Brownfields sites*

HI BROWNFIELDS..... Brownfields Sites

#### ADDITIONAL ENVIRONMENTAL RECORDS

##### *Local Lists of Landfill / Solid Waste Disposal Sites*

ODL..... Open Dump Inventory

## EXECUTIVE SUMMARY

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations  
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

### Local Lists of Hazardous waste / Contaminated Sites

US CDL..... Clandestine Drug Labs  
HI CDL..... Clandestine Drug Lab Listing  
US HIST CDL..... National Clandestine Laboratory Register

### Local Land Records

LIENS 2..... CERCLA Lien Information

### Records of Emergency Release Reports

HMIPS..... Hazardous Materials Information Reporting System  
HI SPILLS 90..... SPILLS 90 data from FirstSearch

### Other Ascertainable Records

DOT OPS..... Incident and Accident Data  
FUDS..... Formerly Used Defense Sites  
CONSENT..... Superfund (CERCLA) Consent/Decreases  
ROD..... Records Of Decision  
UMTRA..... Uranium Mill Tailings Sites  
US MINES..... Mines Master Index File  
TRIS..... Toxic Chemical Release Inventory System  
TSCA..... Toxic Substances Control Act  
FIFRA/TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)  
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing  
SSTS..... Section 7 Tracking Systems  
PADS..... PCB Activity Database System  
MLTS..... Material Licensing Tracking System  
RADINFO..... Radiation Information Database  
RAATS..... RCRA Administrative Action Tracking System  
RMP..... Risk Management Plans  
HI DRYCLEANERS..... Permitted Drycleaner Facility Listing  
INDIAN RESERV..... Indian Reservations  
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing  
PCB TRANSFORMER..... PCB Transformer Registration Database  
EPA WATCH LIST..... EPA WATCH LIST  
US FIN ASSUR..... Financial Assurance Information  
2020 COR ACTION..... 2020 Corrective Action Program List  
LEAD SMELTERS..... Lead Smelter Sites  
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List  
COAL ASH DOE..... Steam-Electric Plant Operation Data  
PRP..... Potentially Responsible Parties

### EDR HIGH RISK HISTORICAL RECORDS

### EDR Exclusive Records

EDR US Hist Auto Stat..... EDR Exclusive Historic Gas Stations

## EXECUTIVE SUMMARY

EDR US Hist Cleaners..... EDR Exclusive Historic Dry Cleaners

### EDR RECOVERED GOVERNMENT ARCHIVES

#### Exclusive Recovered Govt. Archives

HI RGA LF..... Recovered Government Archive Solid Waste Facilities List  
HI RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank  
HI RGA HWS..... Recovered Government Archive State Hazardous Waste Facilities List

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

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.

### STANDARD ENVIRONMENTAL RECORDS

#### Federal CERCLIS NFRAP site List

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 CERC-NFRAP site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction /Distance	Map ID	Page
TOWCO	16-1 SAND ISLAND PARKWA	0 -1/8 (0.000 mi.)	1	7

#### Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database 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). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/10/2014 has revealed that there are 3

## EXECUTIVE SUMMARY

RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SNAPPY SERVICE	2 SAND ISLAND ACCESS RD	NNW 1/8 - 1/8 (0.087 mi.)	A7	16
USCG I S C HONOLULU	4 SAND ISLAND ACCESS RD	NNW 1/8 - 1/4 (0.149 mi.)	B8	19
Lower Elevation	Address	Direction / Distance	Map ID	Page
UNIVERSITY OF HAWAII MARINE CE	1 SAND ISLAND ACCESS RD	N 0 - 1/8 (0.035 mi.)	A4	10

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database 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.

A review of the RCRA-CESQG list, as provided by EDR, and dated 06/10/2014 has revealed that there are 2 RCRA-CESQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STATE OF HAWAII DLNR DBOR	4 SAND ISLAND ACCESS RD	NNW 1/8 - 1/4 (0.149 mi.)	B9	27
SAND ISLAND WMP	1350 SAND ISLAND	SE 1/8 - 1/4 (0.206 mi.)	C17	41

## State- and tribal - equivalent CERCLIS

HI 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 HI SHWS list, as provided by EDR, and dated 01/04/2014 has revealed that there are 58 HI SHWS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HIRI HARBOR TERMINAL (PMD 010)	2 SAND ISLAND ACCESS RD	NNW 0 - 1/8 (0.087 mi.)	A6	15
KAPALAMA MILITARY RESERVATION	SAND ISLAND ACCESS RD	NNW 1/8 - 1/4 (0.153 mi.)	B10	28
HAWAII FUELING FACILITIES CORP	6 SAND ISLAND ACCESS RD	NNW 1/8 - 1/4 (0.171 mi.)	B11	29
HAWAII FUELING FACILITIES CORP	6 & 8 SAND ISLAND ACCESS	NNW 1/8 - 1/4 (0.185 mi.)	B13	32
HAWAII FUELING FACILITIES CORP	8 SAND ISLAND ACCESS RD	NNW 1/8 - 1/4 (0.194 mi.)	B14	34
TOWCO - SAND ISLAND	1350 SAND ISLAND PKWY	SE 1/8 - 1/4 (0.206 mi.)	C15	36
HAWAIIAN MISO AND SOY CO. LTD	1714 MARY ST	N 1/4 - 1/2 (0.469 mi.)	D25	60
VEHICLE PROCESSING CENTER	2101 AUKI ST	N 1/2 - 1 (0.516 mi.)	E26	61
2135 AUKI ST	NNW 1/2 - 1 (0.531 mi.)	E27	63	
MCKESSON WINE & SPIRITS CO	90 SAND ISLAND ACCESS R	NNW 1/2 - 1 (0.561 mi.)	F28	64
USPS VEHICLE MAINTENANCE FACIL	89 SAND ISLAND ACCESS R	NNW 1/2 - 1 (0.579 mi.)	F29	66
TRANS HAWAIIAN OILFIELD, INC.	124 PUUHALE RD	N 1/2 - 1 (0.606 mi.)	G30	68
1122 WAKEFONO STREET	ESE 1/2 - 1 (0.610 mi.)	G31	69	
STATE POULTRY PROCESSORS FACIL	2132 KALANIANA'OLI ST	N 1/2 - 1 (0.621 mi.)	G32	70
FORMER FLYNN LEARNER	120 SAND ISLAND ACCESS	NNW 1/2 - 1 (0.623 mi.)	H33	71
158 SAND ISLAND ACCESS RD	NNW 1/2 - 1 (0.643 mi.)	H34	73	
180 SAND ISLAND ACCESS RD	N 1/2 - 1 (0.686 mi.)	36	74	
AIR ENGINEERING	2308 PAHOONUI DR	NNW 1/2 - 1 (0.721 mi.)	36	75

## EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
YOUNG BROTHERS, LTD. PIERS 39,	1331 N NIMITZ HWY	NE 1/2 - 1 (0.729 mi.)	I37	76
1950 HOMERULE STREET	1950 HOMERULE STREET	N 1/2 - 1 (0.743 mi.)	J38	79
2250 PAHOONUI DRIVE	2250 PAHOONUI DR	NNW 1/2 - 1 (0.774 mi.)	K39	80
1305 HART ST	1305 HART ST	NE 1/2 - 1 (0.787 mi.)	I40	81
PACIFIC FUELTRY	1804 KANA KANUI ST	NE 1/2 - 1 (0.788 mi.)	41	82
YUE-FUNG KWAN CONSTRUCTION SIT	2004-2008 REPUBLICAN ST	N 1/2 - 1 (0.801 mi.)	J42	83
DOMESTIC COMMERCIAL FISHING VI	1133 N NIMITZ HWY	NE 1/2 - 1 (0.802 mi.)	L43	84
HAWAIIAN KAPALAMA TERMINAL	248 SAND ISLAND ACCESS	N 1/2 - 1 (0.804 mi.)	44	87
HART STREET WPPS	1105 N NIMITZ HWY	ENE 1/2 - 1 (0.807 mi.)	L45	89
HAWAII STEVEDORES	1031 N NIMITZ HWY	ENE 1/2 - 1 (0.809 mi.)	M46	93
GTE HAWAIIAN TEL. - CONTAMINATE	965 N NIMITZ HWY	ENE 1/2 - 1 (0.812 mi.)	N47	94
MCCABE, HAMILTON, & BENNY COMP	ALAKAWA ST & NIMITZ HWY	ENE 1/2 - 1 (0.813 mi.)	M48	96
CHEVRON HONOLULU TRANSPORTA TO	1130 N NIMITZ HWY	ENE 1/2 - 1 (0.816 mi.)	L49	97
861-869 NORTH NIMITZ HIGHWAY	933 N NIMITZ HWY	ENE 1/2 - 1 (0.822 mi.)	N50	99
HAWAIIAN ELECTRIC COMPANY (HEC	861-869 N NIMITZ HWY	ENE 1/2 - 1 (0.823 mi.)	O51	100
WEYERHAEUSER	900 N NIMITZ HWY	ENE 1/2 - 1 (0.832 mi.)	O52	101
218 MOHONUA PLACE	N 1/2 - 1 (0.832 mi.)	K54	104	
CHEVRON HONOLULU TERMINAL MARI	777 N NIMITZ HWY	E 1/2 - 1 (0.842 mi.)	55	105
SAND ISLAND BUSINESS ASSOCIATI	1030 ULUPONO ST	ESE 1/2 - 1 (0.842 mi.)	56	108
PAULLEY PETROLEUM	705 N NIMITZ HWY	E 1/2 - 1 (0.856 mi.)	P57	109
EQUILON ENTERPRISES, LLC HONOLU	789 N NIMITZ HWY	E 1/2 - 1 (0.861 mi.)	P58	111
775 NORTH NIMITZ HIGHWAY	775 N NIMITZ HWY	E 1/2 - 1 (0.880 mi.)	P59	111
BEST BUY	ALAKAWA ST & NIMITZ HWY	ENE 1/2 - 1 (0.904 mi.)	G60	112
LONGS DRUG STORES WAREHOUSE	2270 HOONEE PL	N 1/2 - 1 (0.910 mi.)	R61	114
755 N NIMITZ HWY	755 N NIMITZ HWY	E 1/2 - 1 (0.914 mi.)	S62	115
HAGADONE PRINTING COMPANY SAND	2278 HOONEE PL	N 1/2 - 1 (0.915 mi.)	R63	116
GENERAL TIRE	505 WAIKAKAILO RD	NE 1/2 - 1 (0.935 mi.)	S65	118
BHP PIER 29	739 N NIMITZ HWY	E 1/2 - 1 (0.935 mi.)	766	119
1385 COLBURN STREET	1385 COLBURN ST	NE 1/2 - 1 (0.944 mi.)	766	119
HOME DEPOT	421 ALAKAWA ST	ENE 1/2 - 1 (0.955 mi.)	G67	121
700 N NIMITZ IDPP RELEASE	700 N NIMITZ HWY	E 1/2 - 1 (0.955 mi.)	368	122
KEEHI SMALL BOAT HARBOR	4 SAND ISLAND RD	SE 1/2 - 1 (0.956 mi.)	69	123
CONOCO PHILLIPS CO HONOLULU TER	411 PACIFIC STREET	ENE 1/2 - 1 (0.986 mi.)	U71	125
MOANA PAA KAI	705 N NIMITZ HWY	E 1/2 - 1 (0.986 mi.)	V72	131
356 PACIFIC STREET BWS TRENCHI	356 PACIFIC ST	ENE 1/2 - 1 (0.992 mi.)	U73	137
HAWAIIAN FLOUR MILL	703 N NIMITZ HWY	E 1/2 - 1 (0.992 mi.)	V74	139
BREWER ENVIRONMENTAL INDUSTRIE	311 PACIFIC ST	ENE 1/2 - 1 (0.993 mi.)	U75	140
POLYNESIAN HOSPITALITY	330 PACIFIC ST	ENE 1/2 - 1 (0.996 mi.)	76	142
Lower Elevation	Address	Direction / Distance	Map ID	Page
UNIVERSITY OF HAWAII, MARINE C	1 SAND ISLAND ACCESS RD	N 0 - 1/8 (0.035 mi.)	A5	13

## State and tribal leaking storage tank lists

HI LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Health's Active Leaking Underground Storage Tank Log Listing.

A review of the HI LUST list, as provided by EDR, and dated 09/17/2014 has revealed that there are 6

## EXECUTIVE SUMMARY

HI LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
<b>SAND ISLAND WASTEWATER TREATMENT</b> 1350 SAND ISLAND PARKWA SE 1/8 - 1/4 (0.206 mi.) Facility Status: Site Cleanup Completed (NFA)			C16	40
<b>MATSON TERMINALS &amp; MAINTENANCE</b> 1411 SAND ISLAND ACCESS ESE 1/8 - 1/4 (0.247 mi.) Facility Status: Monitored Natural Attenuation			19	50
<b>KAPALAMA MILITARY RESERVATION</b> BLDG 942 TANK 942-1, 94 NNW 1/4 - 1/2 (0.382 mi.) Facility Status: Case Transferred to HEER (regulated)			D21	57
<b>TOMMY OF HAWAII, INC</b> 1812 AUKI ST N 1/4 - 1/2 (0.476 mi.) Facility Status: Site Cleanup Completed (NFA)			D22	57
<b>MODERN MACARONI CO, LTD</b> 1708 MARY ST N 1/4 - 1/2 (0.484 mi.) Facility Status: Site Cleanup Completed (NFA)			D23	58
<b>HAWAIIAN MASON &amp; PLASTERS UNIO</b> 1930 AUKI ST N 1/4 - 1/2 (0.487 mi.) Facility Status: Site Cleanup Completed (NFA)			24	59

### State and tribal registered storage tank lists

HI 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 HI UST list, as provided by EDR, and dated 09/17/2014 has revealed that there are 5 HI UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
<b>HRI HARBOR TERMINAL (PMID 010)</b> 2 SAND ISLAND ACCESS RD NNW 0 - 1/8 (0.087 mi.)			A6	15
<b>KAPALAMA MILITARY RESERVATION</b> SAND ISLAND ACCESS RD, NNW 1/8 - 1/4 (0.153 mi.)			B10	28
<b>SAND ISLAND WASTEWATER TREATMENT</b> 1350 SAND ISLAND PARKWA SE 1/8 - 1/4 (0.206 mi.)			C16	40
<b>MATSON TERMINALS &amp; MAINTENANCE</b> 1411 SAND ISLAND ACCESS ESE 1/8 - 1/4 (0.247 mi.)			19	50
Lower Elevation	Address	Direction / Distance	Map ID	Page
UH MARINE CENTER	1 SAND ISLAND ACCESS RD	N 0 - 1/8 (0.035 mi.)	A2	8

### State and tribal institutional control / engineering control registries

HI ENG CONTROLS: A listing of sites with engineering controls in place.

A review of the HI ENG CONTROLS list, as provided by EDR, and dated 01/04/2014 has revealed that there is 1 HI ENG CONTROLS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
<b>TOWCO - SAND ISLAND</b>	1350 SAND ISLAND PKWY	SE 1/8 - 1/4 (0.206 mi.)	C15	36

## EXECUTIVE SUMMARY

Voluntary Remediation Program and Brownfields sites with institutional controls in place.

A review of the HI INST CONTROL list, as provided by EDR, and dated 01/04/2014 has revealed that there are 2 HI INST CONTROL sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
<b>HAWAII FUELING FACILITIES CORP</b> 8 SAND ISLAND ACCESS RD NNW 1/8 - 1/4 (0.194 mi.)			B14	34
<b>TOWCO - SAND ISLAND</b> 1350 SAND ISLAND PKWY SE 1/8 - 1/4 (0.206 mi.)			C15	36

### ADDITIONAL ENVIRONMENTAL RECORDS

#### Local Brownfield lists

US BROWNFIELDS: The EPA's listing of Brownfields properties from the Cleanups in My Community program, which provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

A review of the US BROWNFIELDS list, as provided by EDR, and dated 09/22/2014 has revealed that there is 1 US BROWNFIELDS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SAND ISLAND	1640 SAND ISLAND ACCESS	SSE 1/4 - 1/2 (0.264 mi.)	20	52

### Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database 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). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 06/10/2014 has revealed that there are 3 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
<b>AIRCRAFT SERVICE INTERNATIONAL</b> 6 SAND ISLAND ACCESS RD NNW 1/8 - 1/4 (0.171 mi.)			B12	31
<b>DEPT OF BUSINESS ECON DEVL AND</b> 70 SAND ISLAND ACCESS R NNW 1/8 - 1/4 (0.216 mi.)			18	48
Lower Elevation	Address	Direction / Distance	Map ID	Page
<b>USDOC NOAA SHIP TOWWASEND CROWW</b> 1 SAND ISLAND ACCESS RD	N 0 - 1/8 (0.035 mi.)		A3	8

DOD: 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 12/31/2005 has revealed that there is 1 DOD



## EXECUTIVE SUMMARY

site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
	SAND ISLAND MILITARY RESERVATI	E 1/2 - 1 (0.524 mi.)	0	7

### EDR HIGH RISK HISTORICAL RECORDS

#### EDR Exclusive Records

EDR MGP: The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used waste oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oil) waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

A review of the EDR MGP list, as provided by EDR, has revealed that there is 1 EDR MGP site within approximately 1 mile of the target property.

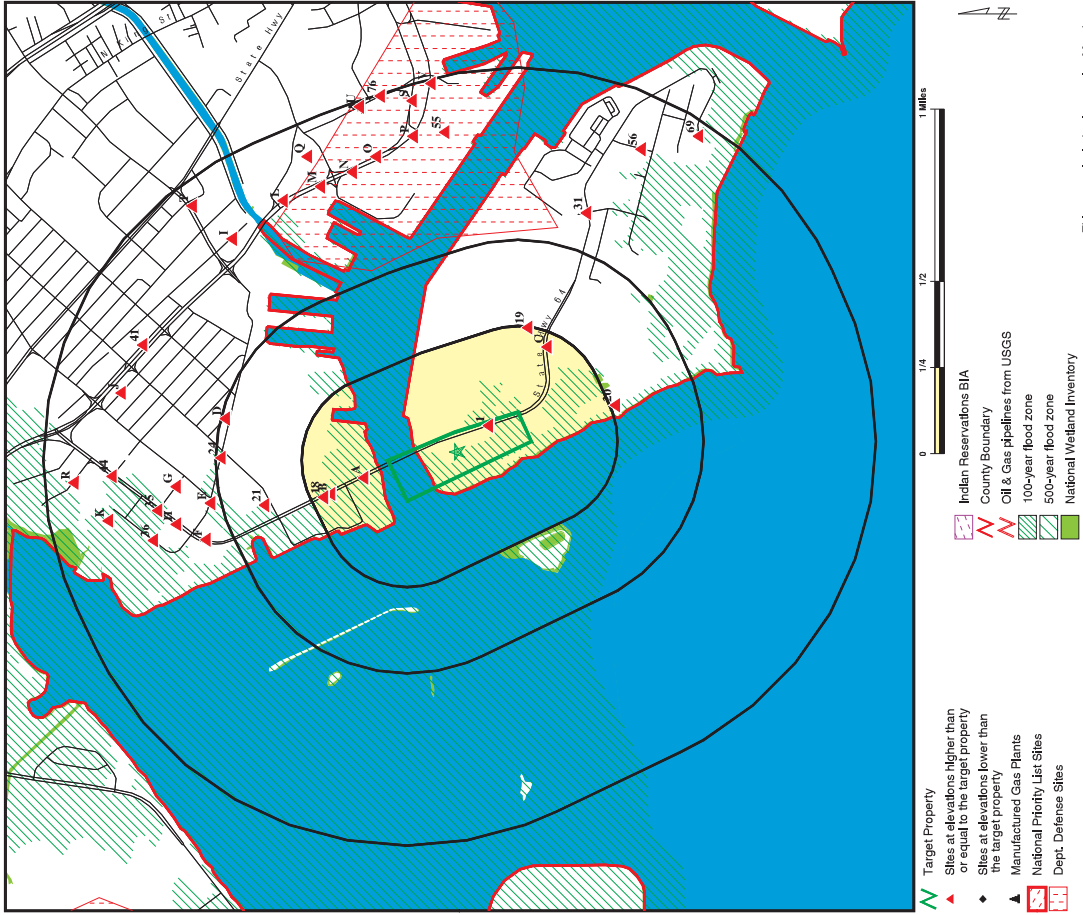
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BHP GASCO	432 PACIFIC STREET	ENE 1/2 - 1 (0.984 mi.)	U70	125

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 11 records.

Site Name	Database(s)
KEEHI LAGOON CANOE FACILITY, INCRE	HI SHWS, HI ENG CONTROLS, HI INST CONTROL
CITIZENS ENERGY SERVICES PIER 38	HI SHWS, HI SPILLS, HI ENG CONTROLS, HI INST CONTROL
KALANI, HART, MOKUAEA STREET, HONO KALIHI AND KALAEPA INTERSECTION	HI SHWS, HI SPILLS
ABC DISPOSAL COMPANY	HI SHWS
FORMER KAPALAMA MILITARY RESERVATI	HI SHWS
NIMITZ HIGHWAY WATER IMPROVEMENT P	HI SHWS, HI SPILLS, HI INST CONTROL
DLNR BURIED DRUM SITE	HI SHWS, HI SPILLS, HI INST CONTROL
KOKUA KALIHI VALLEY ACTIVE LIVING	HI SHWS, HI BROWNFIELDS
USCG BASE HONOLULU	CERC-NFRAP
SAND ISLAND OFF-HIGHWAY VEHICLE FA	FINDS

OVERVIEW MAP - 4138072.2S

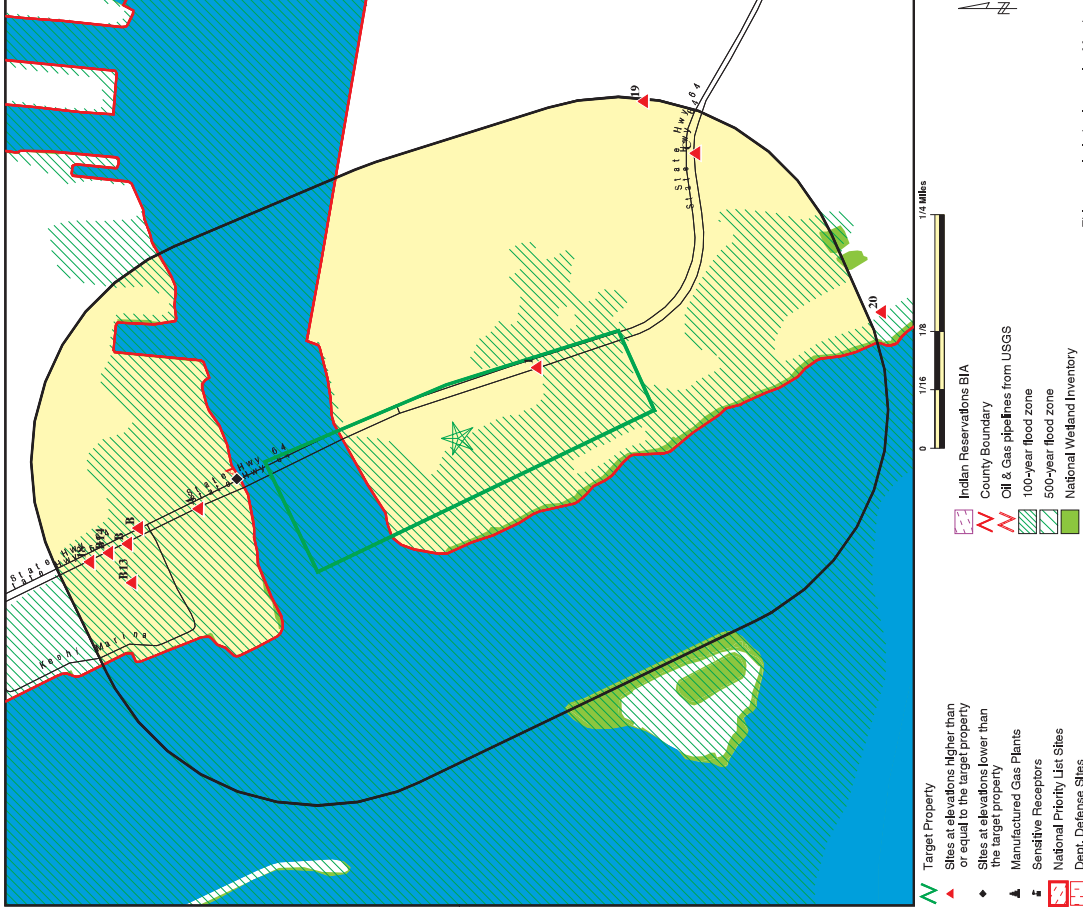


SITE NAME: SOEST Facility  
 ADDRESS: Sand Island Access Road  
 Honolulu HI 96819  
 LAT/LONG: 21.3118 / 157.8876

CLIENT: Enviro Svcs. and Trng. Center  
 CONTACT: Lisa Baxter  
 INQUIRY #: 4138072.2S  
 DATE: November 19, 2014 0:44 am

Copyright © 2014 EPR, Inc. © 2010 InterMap, Inc. 07/2009

DETAIL MAP - 4138072.2S



SITE NAME: SOEST Facility  
 ADDRESS: Sand Island Access Road  
 Honolulu HI 96819  
 LAT/LONG: 21.3118 / 157.8876

CLIENT: Enviro Svcs. and Trng. Center  
 CONTACT: Lisa Baxter  
 INQUIRY #: 4138072.2S  
 DATE: November 19, 2014 0:45 am

Copyright © 2014 EPR, Inc. © 2010 InterMap, Inc. 07/2009

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b>STANDARD ENVIRONMENTAL RECORDS</b>								
<i>Federal NPL site list</i>								
NPL	1,000		0	0	0	0	NR	0
Proposed NPL	1,000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1,000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site List</i>								
CERC-NFRAP	0.500		1	0	0	NR	NR	1
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1,000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		2	1	NR	NR	NR	3
RCRA-CESQG	0.250		0	2	NR	NR	NR	2
<i>Federal institutional controls / engineering controls registries</i>								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
HI SHWS	1,000		2	5	1	50	NR	58
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
HI SWFILF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
HI LUST	0.500		0	2	4	NR	NR	6
INDIAN LUST	0.500		0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
HI UST	0.250		2	3	NR	NR	NR	5

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
<i>State and tribal institutional control / engineering control registries</i>								
HI ENG CONTROLS	0.500		0	1	0	NR	NR	1
HI INST CONTROL	0.500		0	2	0	NR	NR	2
<i>State and tribal voluntary cleanup sites</i>								
HI VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
<i>State and tribal Brownfields sites</i>								
HI BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b>ADDITIONAL ENVIRONMENTAL RECORDS</b>								
<i>Local / Brownfield lists</i>								
US BROWNFIELDS	0.500		0	0	1	NR	NR	1
<i>Local Lists of Landfill / Solid Waste Disposal Sites</i>								
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
<i>Local Lists of Hazardous waste / Contaminated Sites</i>								
US CDL	TP		NR	NR	NR	NR	NR	0
HI CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
<i>Local Land Records</i>								
LIENS 2	TP		NR	NR	NR	NR	NR	0
<i>Records of Emergency Release Reports</i>								
HMIRS	TP		NR	NR	NR	NR	NR	0
HI SPILLS	TP		NR	NR	NR	NR	NR	0
HI SPILLS 90	TP		NR	NR	NR	NR	NR	0
<i>Other Ascertainable Records</i>								
RCFA NonGen / NLR	0.250		1	2	NR	NR	NR	3
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1,000		0	0	0	0	NR	1
FUDS	1,000		0	0	0	0	NR	0
CONSENT	1,000		0	0	0	0	NR	0
ROD	1,000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	0	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0

**MAP FINDINGS SUMMARY**

**MAP FINDINGS**

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

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
TSCA	TP	NR	NR	NR	NR	NR	NR	0
FTS	TP	NR	NR	NR	NR	NR	NR	0
HIST FTTS	TP	NR	NR	NR	NR	NR	NR	0
SSTS	TP	NR	NR	NR	NR	NR	NR	0
IOS	TP	NR	NR	NR	NR	NR	NR	0
PADS	TP	NR	NR	NR	NR	NR	NR	0
MITS	TP	NR	NR	NR	NR	NR	NR	0
RADINFO	TP	NR	NR	NR	NR	NR	NR	0
FINDS	TP	NR	NR	NR	NR	NR	NR	0
RAATS	TP	NR	NR	NR	NR	NR	NR	0
RMP	TP	NR	NR	NR	NR	NR	NR	0
HI UIC	TP	NR	NR	NR	NR	NR	NR	0
HI DRYCLEANERS	0.250	0	0	0	0	0	0	0
CA HAZNET	TP	NR	NR	NR	NR	NR	NR	0
HI AIRS	TP	NR	NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000	0	0	0	0	0	0	0
SCRD DRYCLEANERS	0.500	0	0	0	0	0	0	0
HI Financial Assurance	TP	NR	NR	NR	NR	NR	NR	0
PCB TRANSFORMER	TP	NR	NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP	NR	NR	NR	NR	NR	NR	0
US FIN ASSUR	TP	NR	NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250	0	0	0	0	0	0	0
LEAD SMELTERS	TP	NR	NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500	0	0	0	0	0	0	0
COAL ASH DOE	TP	NR	NR	NR	NR	NR	NR	0
PRP	TP	NR	NR	NR	NR	NR	NR	0
US AIRS	TP	NR	NR	NR	NR	NR	NR	0

**EDR HIGH RISK HISTORICAL RECORDS**

**EDR Exclusive Records**

EDR MGP	1.000	0	0	0	0	0	0	1
EDR US Hist Auto Stat	0.250	0	0	0	0	0	0	0
EDR US Hist Cleaners	0.250	0	0	0	0	0	0	0

**EDR RECOVERED GOVERNMENT ARCHIVES**

**Exclusive Recovered Govt. Archives**

HI RGA LF	TP	NR	NR	NR	NR	NR	NR	0
HI RGA LUST	TP	NR	NR	NR	NR	NR	NR	0
HI RGA HWS	TP	NR	NR	NR	NR	NR	NR	0

**NOTES:**

TP = Target Property  
 NR = Not Requested at this Search Distance  
 Sites may be listed in more than one database

**DOD**  
 Region: SAND ISLAND MILITARY RESERVATION  
 East: SAND ISLAND MILITARY RESE (County), HI  
 1/2-1  
 2766 ft.

**DOD:**  
 Feature 1: Army DOD  
 Feature 2: Not reported  
 Feature 3: Not reported  
 URL: Not reported  
 Name 1: Sand Island Military Reservation  
 Name 2: Not reported  
 Name 3: Not reported  
 State: HI  
 DOD Site: Yes  
 Tile name: HIHONOLULU

**1**  
 Region: TOWCO  
 East: 16-1 SAND ISLAND PARKWAY ROAD  
 HONOLULU, HI 96819  
 1 ft.

**Relative:**  
 Higher

**Actual:**  
 31t.

**CERC-NFRAP:**  
 Site ID: 0904630  
 Federal Facility: Not a Federal Facility  
 NPL Status: Not on the NPL  
 Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

**CERCLUS/NFRAP Site Contact Details:**  
 Contact Sequence ID: 13037514.00000  
 Person ID: 9000059.00000

**CERCLUS/NFRAP Assessment History:**  
 Action: PRELIMINARY ASSESSMENT  
 Date Started: / /  
 Date Completed: 10/15/92  
 Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

**Action:**  
 Date Started: / /  
 Date Completed: 10/15/92  
 Priority Level: Not reported

**Action:**  
 Date Started: / /  
 Date Completed: 07/23/92  
 Priority Level: Not reported

**A2** North < 1/8 0.035 mi. 184 ft. **Relative: Lower** **Actual: 1 ft.**

**UH MARINE CENTER**  
**1 SAND ISLAND ACCESS RD**  
**HONOLULU, HI 96819**  
**Site 1 of 6 in cluster A**  
 UST: 9-201058  
 STATE U.H. - MARINE CENTER  
 Owner: 1 SAND ISLAND ACCESS RD  
 Owner Address: Honolulu, 96819 96819  
 Owner City, St, Zip: Not reported  
 Latitude: Not reported  
 Longitude: Not reported  
 Horizontal Reference Datum: NAD83  
 Horizontal Reference Datum: Not reported

Tank ID: R-1  
 Date Installed: 04/09/1977  
**Tank Status: Permanently Out of Use**  
 Date Closed: 06/10/1983  
 Tank Capacity: 1000  
 Substance: Gasoline

Tank ID: R-2  
 Date Installed: 04/09/1977  
**Tank Status: Permanently Out of Use**  
 Date Closed: 02/27/1992  
 Tank Capacity: 5000  
 Substance: Gasoline

Tank ID: R-3  
 Date Installed: 04/09/1977  
**Tank Status: Permanently Out of Use**  
 Date Closed: 02/27/1992  
 Tank Capacity: 500  
 Substance: Gasoline

**A3** North < 1/8 0.035 mi. 184 ft. **Relative: Lower** **Actual: 1 ft.**

**USDOC NOAA SHIP TOWNSEND CROMWELL**  
**1 SAND ISLAND ACCESS RD**  
**HONOLULU, HI 96819**  
**Site 2 of 6 in cluster A**  
 RCRA NonGen / NLR: 1000143213  
 Date form received by agency: 09/30/1983  
 Facility name: USDOC NOAA SHIP TOWNSEND CROMWELL  
 Facility address: 1 SAND ISLAND ACCESS RD  
 HONOLULU, HI 96819  
 EPA ID: H16130090065  
 Mailing address: SAND ISLAND ACCESS RD  
 HONOLULU, HI 96819  
 Contact: ENVIRONMENTAL MANAGER  
 Contact address: 1 SAND ISLAND ACCESS RD  
 HONOLULU, HI 96819  
 Contact country: US  
 Contact telephone: (808) 541-1311  
 Contact email: Not reported  
 EPA Region: 09  
 Classification: Non-Generator

Violation Status: No violations found  
 HAZNET:  
 Year: 2003  
 Gepaid: H16130090065  
 Contact: ENVIRONMENTAL MANAGER  
 Telephone: 8085411311  
 Mailing Name: Not reported  
 Mailing Address: 1 SAND ISLAND ACCESS RD  
 HONOLULU, HI 96819  
 Gen. Country: Not reported  
 TSD EPA ID: CAD059494310  
 Waste Category: Not reported  
 Waste Category: Unspecified aqueous solution  
 Disposal Method: Treatment, Tank  
 Tons: 0.27  
 Facility County: 99

**USDOC NOAA SHIP TOWNSEND CROMWELL (Continued)**  
 Handler: Non-Generators do not presently generate hazardous waste

Description:  
 Owner/Operator Summary:  
 Owner/Operator name: NOT REQUIRED  
 Owner/Operator address: NOT REQUIRED, ME 99999  
 Owner/Operator country: Not reported  
 Owner/Operator telephone: (415) 555-1212  
 Legal status: Federal  
 Owner/Operator Type: Operator  
 Owner/Op start date: Not reported  
 Owner/Op end date: Not reported

Owner/Operator name: DEPT COMMERCE NOAA  
 Owner/Operator address: NOT REQUIRED  
 Owner/Operator country: NOT REQUIRED, ME 99999  
 Owner/Operator telephone: Not reported  
 Legal status: Federal  
 Owner/Operator Type: Owner  
 Owner/Op start date: Not reported  
 Owner/Op end date: Not reported

Handler Activities Summary:  
 U.S. importer of hazardous waste: No  
 Mixed waste (haz. and radioactive): No  
 Recycler of hazardous waste: No  
 Transporter of hazardous waste: No  
 Treater, storer or disposer of HW: No  
 Underground injection activity: No  
 On-site burner exemption: No  
 Furnace exemption: No  
 Used oil fuel burner: No  
 Used oil processor: No  
 Used oil refiner: No  
 Used oil fuel marketer to burner: No  
 Used oil Specification marketer: No  
 Used oil transfer facility: No  
 Used oil transporter: No



**USDOC NOAA SHIP TOWNSEND CROMWELL (Continued)** 1000143213

Year: 2003  
 Geopaid: HI6130090065  
 Contact: ENVIRONMENTAL MANAGER  
 Telephone: 8085411311  
 Mailing Name: Not reported  
 Mailing Address: 1 SAND ISLAND ACCESS RD  
 Mailing City, St, Zip: HONOLULU, HI 96819  
 Gen County: Not reported  
 TSD EPA ID: CAD059494310  
 TSD County: Not reported  
 Waste Category: Paint sludge  
 Disposal Method: Disposal, Other  
 Tons: 0.02  
 Facility County: 99

**A4**  
**North**  
 < 1/8  
 0.035 mi.  
 184 ft.  
**Relative:**  
**Lower**

**Actual:**  
 1 ft.

**UNIVERSITY OF HAWAII MARINE CENTER**  
**1 SAND ISLAND ACCESS RD**  
**HONOLULU, HI 96819**  
**Site 3 of 6 in cluster A**

**RCRA-SQG:**  
 Date form received by agency: 09/08/2006  
 Facility name: UNIVERSITY OF HAWAII MARINE CENTER  
 Facility address: 1 SAND ISLAND ACCESS RD  
 UNIVERSITY OF HAWAII  
 HONOLULU, HI 96819  
 EPA ID: HIR0001380008  
 Contact: STAN WINSLOW  
 Contact address: 1 SAND ISLAND ACCESS RD  
 HONOLULU, HI 96819  
 Contact country: US  
 Contact telephone: 808-847-2662  
 Contact email: SWINSLOW@SOESTHAWAII.EDU  
 EPA Region: 09  
 Land type: State  
 Classification: Small Small Quantity Generator  
 Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

**Owner/Operator Summary:**  
 Owner/operator name: UNIVERSITY OF HAWAII  
 Owner/operator address: Not reported  
 Owner/operator country: US  
 Owner/operator telephone: Not reported  
 Legal status: State  
 Owner/Operator Type: Operator  
 Owner/Op start date: 02/23/1973  
 Owner/Op end date: Not reported  
 Owner/operator name: STATE OF HAWAII  
 Owner/operator address: 1151 PUNCHBOWL ST  
 HONOLULU, HI 96813

**UNIVERSITY OF HAWAII MARINE CENTER (Continued)** 1010316477

Owner/operator country: US  
 Owner/operator telephone: Not reported  
 Legal status: State  
 Owner/Operator Type: Owner  
 Owner/Op start date: 07/01/1964  
 Owner/Op end date: Not reported

**Handler Activities Summary:**  
 U.S. importer of hazardous waste: No  
 Mixed waste (haz. and radioactive): No  
 Recycler of hazardous waste: No  
 Transporter of hazardous waste: No  
 Treater, storer, or disposer of HW: No  
 Underground injection activity: No  
 On-site burner exemption: No  
 Furnace exemption: No  
 Used oil fuel burner: No  
 Used oil processor: No  
 Used oil refiner: No  
 Used oil fuel marketer to burner: No  
 Used oil Specification marketer: No  
 Used oil transfer facility: No  
 Used oil transporter: No

**Hazardous Waste Summary:**  
 Waste code: D001  
 Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT MATERIAL WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

**Hazardous Waste Summary:**  
 Waste code: D002  
 Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

**Waste code:** D005  
**Waste name:** BARIUM

**Waste code:** D006  
**Waste name:** CADMIUM

**Waste code:** D007  
**Waste name:** CHROMIUM

**Waste code:** D008  
**Waste name:** LEAD

**Waste code:** D009

Waste name: MERCURY  
Waste code: D018  
Waste name: BENZENE  
Waste code: D035  
Waste name: METHYL ETHYL KETONE  
Waste code: F001

Waste name: MERCURY  
Waste code: D018  
Waste name: BENZENE  
Waste code: D035  
Waste name: METHYL ETHYL KETONE  
Waste code: F001

Waste name: MERCURY  
Waste code: D018  
Waste name: BENZENE  
Waste code: D035  
Waste name: METHYL ETHYL KETONE  
Waste code: F001

Waste name: MERCURY  
Waste code: D018  
Waste name: BENZENE  
Waste code: D035  
Waste name: METHYL ETHYL KETONE  
Waste code: F001

THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003  
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS; AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003  
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS; AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003  
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS; AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003  
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS; AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005  
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBONDISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005  
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBONDISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005  
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBONDISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005  
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBONDISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: U112  
Waste name: ACETIC ACID ETHYL ESTER (I)  
Waste code: U154  
Waste name: METHANOL (I)  
Waste code: U220  
Waste name: BENZENE, METHYL-  
Waste code: U239  
Waste name: BENZENE, DIMETHYL- (I,I)

Waste code: U112  
Waste name: ACETIC ACID ETHYL ESTER (I)  
Waste code: U154  
Waste name: METHANOL (I)  
Waste code: U220  
Waste name: BENZENE, METHYL-  
Waste code: U239  
Waste name: BENZENE, DIMETHYL- (I,I)

Waste code: U112  
Waste name: ACETIC ACID ETHYL ESTER (I)  
Waste code: U154  
Waste name: METHANOL (I)  
Waste code: U220  
Waste name: BENZENE, METHYL-  
Waste code: U239  
Waste name: BENZENE, DIMETHYL- (I,I)

Waste code: U112  
Waste name: ACETIC ACID ETHYL ESTER (I)  
Waste code: U154  
Waste name: METHANOL (I)  
Waste code: U220  
Waste name: BENZENE, METHYL-  
Waste code: U239  
Waste name: BENZENE, DIMETHYL- (I,I)

Facility Has Received Notices of Violations:  
Regulation violated: Not reported  
Area of violation: Generators - General  
Date violation determined: 09/08/2006  
Date achieved compliance: 04/18/2007  
Violation lead agency: State

Facility Has Received Notices of Violations:  
Regulation violated: Not reported  
Area of violation: Generators - General  
Date violation determined: 09/08/2006  
Date achieved compliance: 04/18/2007  
Violation lead agency: State

Facility Has Received Notices of Violations:  
Regulation violated: Not reported  
Area of violation: Generators - General  
Date violation determined: 09/08/2006  
Date achieved compliance: 04/18/2007  
Violation lead agency: State

Facility Has Received Notices of Violations:  
Regulation violated: Not reported  
Area of violation: Generators - General  
Date violation determined: 09/08/2006  
Date achieved compliance: 04/18/2007  
Violation lead agency: State

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

**UNIVERSITY OF HAWAII, MARINE CENTER (Continued)**

Response:  
Not reported  
Nature of Residual Contamination:  
Oil/diesel range organic, PCB Aroclor 1260 below Tier I Action Levels.  
Use Restrictions:  
No Hazard Present For Unrestricted Residential Use  
Engineering Control:  
Not reported  
Description of Restrictions:  
Not reported  
Institutional Control:  
Not reported  
Within Designated Area-wide Contamination:  
Honolulu Harbor Kapalama Unit  
Site Closure Type:  
No Further Action Letter - Unrestricted Residential Use  
Document Date:  
12/10/2004  
Document Number:  
2004-502-UW  
Document Subject:  
NFA letter for Release No. 2003.0523-0009  
Project Manager:  
Ukris Wongse-Ont  
Contact Information:  
(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

**HI SHWS**

U003221560  
HI UST  
N/A  
HI Financial Assurance

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Map ID  
Direction  
Distance  
Elevation



Site

Database(s)

EDR ID Number  
EPA ID Number

Map ID  
Direction  
Distance  
Elevation



Site

Database(s)

EDR ID Number  
EPA ID Number

**HIRI HARBOR TERMINAL (PMID 010103) (Continued)**

U003221560

1001218500

HI Financial Assurance:  
Alt Facility ID:  
Tank Id:  
Tank Status:  
FRTYPE:  
Expiration Date:

Used oil fuel burner:  
Used oil processor:  
Used oil refiner:  
Used oil fuel marketer to burner:  
Used oil Specification marketer:  
Used oil transfer facility:  
Used oil transporter:

**SNAPPY SERVICE**  
2 SAND ISLAND ACCESS RD  
HONOLULU, HI 96819

**RCRA-SQG**  
1001218500  
FINDS  
HR000040535  
US AIRS

**SNAPPY SERVICE (Continued)**  
Used oil fuel burner: No  
Used oil processor: No  
Used oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No  
Hazardous Waste Summary: D000  
Waste code: Not Defined  
Waste name:  
Waste code: D001  
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D018  
Waste name: BENZENE  
Violation Status: No violations found

Evaluation Action Summary:  
Evaluation date: 02/12/2009  
Area of violation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Date achieved compliance: Not reported  
Evaluation lead agency: State

**FINDS:**

Registry ID: 110001412472

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (IGS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the

AZ  
NW  
~18  
0.087 mi.  
457 ft.  
Relative:  
Higher  
Actual:  
3 ft.

Date form received by agency: 06/08/1988  
TESORO HAWAII SAND ISLAND TERM  
2 SAND ISLAND ACCESS RD  
HONOLULU, HI 96819  
HIR000040535  
P O BOX 3379  
HONOLULU, HI 96842  
RICHARD ROSEN  
P O BOX 3379  
HONOLULU, HI 96842  
US

Mailing address:  
Contact:  
Contact address:  
Contact country:  
Contact telephone:  
Contact email:  
EPA Region:  
Land type:  
Classification:  
Description:  
Small Small Quantity Generator  
Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time, or generates 100 Kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:  
Owner/operator name:  
Owner/operator address:  
Owner/operator country:  
Owner/operator telephone:  
Legal status:  
Owner/Operator Type:  
Owner/Op start date:  
Owner/Op end date:

TESORO HAWAII CORP  
P O BOX 3379  
HONOLULU, HI 96842  
Not reported  
(808) 547-3111  
Private  
Owner  
Not reported

Handler Activities Summary:  
U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No

**SNAPPY SERVICE (Continued)**  
 discharge does not adversely affect water quality.  
 RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.  
 STATE MASTER  
 ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include: Incident Tracking, Compliance Assistance, and Compliance Monitoring.

Registry ID: 110046213799  
 Environmental Interest/Information System  
 STATE MASTER

**AIRS (AFS):**  
 Compliance and Violation Data Major Sources:  
 EPA plant ID: 110001412472  
 Plant name: HAWAII INDEPENDENT ENERGY  
 Plant address: 2 SAND ISLAND ACCESS RD  
 HONOLULU, HI 96819  
 County: HONOLULU  
 Region code: 09  
 Not reported  
 Dunn & Bradst #: 060  
 Air quality cntfr region: 060  
 Sic code: 5171  
 PETROLEUM BULK STATIONS AND TERMINALS  
 Not reported  
 North Am. industrial classif: IN COMPLIANCE - INSPECTION  
 NAIC code description: ACTUAL OR POTENTIAL EMISSIONS ARE ABOVE THE APPLICABLE MAJOR SOURCE THRESHOLDS  
 Default compliance status: LOCAL GOVERNMENT  
 Govt facility: Not reported  
 Current HPV: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

EDR ID Number  
EPA ID Number

Database(s)

**B8**  
**NNW**  
**1/8-1/4**  
**0.149 mi.**  
**785 ft.**  
**Relative:**  
**Higher**  
**Actual:**  
**3 ft.**

**USCG I S C HONOLULU**  
**4 SAND ISLAND ACCESS ROAD**  
**HONOLULU, HI 96819**  
**Site 1 of 7 in cluster B**  
 RCRA-SQG:  
 Date form received by agency: 01/18/99  
 USCG I S C HONOLULU  
 Facility name: 4 SAND ISLAND ACCESS ROAD  
 Facility address:  
 USCG  
 HONOLULU, HI 968191117  
 EPA ID: H18690390036  
 Contact: STEVEN PITTS  
 Contact address: 4 SAND ISLAND ACCESS ROAD USCG  
 HONOLULU, HI 968191117  
 Contact country: US  
 Contact telephone: (808) 832-3280  
 Contact email: Not reported  
 EPA Region: 09  
 Land type: Federal  
 Classification: Small Small Quantity Generator  
 Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time, or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:  
 Owner/operator name: UNITED STATES COAST GUARD  
 Owner/operator address: 4 SAND ISLAND ACCESS ROAD USCG  
 HONOLULU, HI 96819  
 Owner/operator country: Not reported  
 Owner/operator telephone: (808) 541-2490  
 Legal status: Federal  
 Owner/Operator Type: Owner  
 Owner/Op start date: Not reported  
 Owner/Op end date: Not reported  
 Owner/operator name: NOT REQUIRED  
 Owner/operator address: NOT REQUIRED, ME 99999  
 Owner/operator country: Not reported  
 Owner/operator telephone: (415) 555-1212  
 Legal status: Federal  
 Owner/Operator Type: Operator  
 Owner/Op start date: Not reported  
 Owner/Op end date: Not reported

Handler Activities Summary:  
 U.S. importer of hazardous waste: No  
 Mixed waste (haz. and radioactive): No  
 Recycler of hazardous waste: No  
 Transporter of hazardous waste: No  
 Treater, store or disposer of HW: No  
 Underground injection activity: No  
 On-site burner exemption: No  
 Furnace exemption: No



**USCG I S C HONOLULU (Continued)** 1000455802

Used oil fuel burner: No  
 Used oil processor: No  
 Used oil refiner: No  
 Used oil fuel marketer to burner: No  
 Used oil Specification marketer: No  
 Used oil transfer facility: No  
 Used oil transporter: No

Historical Generators:  
 Date form received by agency: 10/14/1988  
 Site name: USCG ISC HONOLULU  
 Classification: Large Quantity Generator  
 Date form received by agency: 02/22/1986  
 Site name: USCG BASE HONOLULU  
 Classification: Large Quantity Generator  
 Date form received by agency: 03/01/1984  
 Site name: COAST GUARD BASE HONOLULU  
 Classification: Large Quantity Generator  
 Date form received by agency: 03/11/1982  
 Site name: U.S. COAST GUARD BASE HONOLULU  
 Classification: Large Quantity Generator

Hazardous Waste Summary:  
 Waste code: D000  
 Waste name: Not Defined

Waste code: D001  
 Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002  
 Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D003  
 Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BE WASTE GUNPOWDER.

Waste code: D006  
 Waste name: CADMIUM

**USCG I S C HONOLULU (Continued)** 1000455802

Waste code: D008  
 Waste name: LEAD  
 Waste code: D009  
 Waste name: MERCURY  
 Waste code: D035  
 Waste name: METHYL ETHYL KETONE

Waste code: F001  
 Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003  
 Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, NBUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005  
 Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Facility Has Received Notices of Violations:  
 Regulation violated: S - 262.20-23 B  
 Area of violation: Generators - General  
 Date violation determined: 05/16/2000  
 Date achieved compliance: 12/20/2000  
 Violation lead agency: State  
 Enforcement action: FINAL 3008(A) COMPLIANCE ORDER  
 Enforcement action date: 12/20/2000  
 Enf. disposition status: Not reported  
 Enf. disp. status date: Not reported  
 Enforcement lead agency: State  
 Processed penalty amount: Not reported  
 Final penalty amount: 7600  
 Paid penalty amount: Not reported  
 Regulation violated: S - 262.10-12 A  
 Area of violation: Generators - General

1000455802

1000455802

1000455802

1000455802

1000455802

1000455802

1000455802

1000455802

1000455802

1000455802

1000455802

USCG I S C HONOLULU (Continued)

USCG I S C HONOLULU (Continued)

USCG I S C HONOLULU (Continued)

USCG I S C HONOLULU (Continued)

USCG I S C HONOLULU (Continued)

USCG I S C HONOLULU (Continued)

USCG I S C HONOLULU (Continued)

USCG I S C HONOLULU (Continued)

USCG I S C HONOLULU (Continued)

USCG I S C HONOLULU (Continued)

USCG I S C HONOLULU (Continued)

Date violation determined: 05/16/2000  
 Date achieved compliance: 12/20/2000  
 Violation lead agency: State  
 Enforcement action: INITIAL 3008(A) COMPLIANCE ORDER  
 Enforcement action date: 09/11/2000  
 Enf. disp. status: Not reported  
 Enf. disp. status date: Not reported  
 Enforcement lead agency: State  
 Proposed penalty amount: 9500  
 Final penalty amount: 7600  
 Paid penalty amount: Not reported

Regulation violated: S - 262.10-12.A  
 Area of violation: Generators - General  
 Date violation determined: 05/16/2000  
 Date achieved compliance: 12/20/2000  
 Violation lead agency: State  
 Enforcement action: FINAL 3008(A) COMPLIANCE ORDER  
 Enforcement action date: 12/20/2000  
 Enf. disposition status: Not reported  
 Enf. disp. status date: Not reported  
 Enforcement lead agency: State  
 Proposed penalty amount: 9500  
 Final penalty amount: 7600  
 Paid penalty amount: Not reported

Regulation violated: S - 262.20-23.B  
 Area of violation: Generators - General  
 Date violation determined: 05/16/2000  
 Date achieved compliance: 12/20/2000  
 Violation lead agency: State  
 Enforcement action: INITIAL 3008(A) COMPLIANCE  
 Enforcement action date: 09/11/2000  
 Enf. disposition status: Not reported  
 Enf. disp. status date: Not reported  
 Enforcement lead agency: State  
 Proposed penalty amount: 9500  
 Final penalty amount: 7600  
 Paid penalty amount: Not reported

Regulation violated: S - 279.20-24  
 Area of violation: Used Oil - Generators  
 Date violation determined: 05/16/2000  
 Date achieved compliance: 12/20/2000  
 Violation lead agency: State  
 Enforcement action: INITIAL 3008(A) COMPLIANCE  
 Enforcement action date: 09/11/2000  
 Enf. disposition status: Not reported  
 Enf. disp. status date: Not reported  
 Enforcement lead agency: State  
 Proposed penalty amount: 9500  
 Final penalty amount: 7600  
 Paid penalty amount: Not reported

Regulation violated: FR - 268.7  
 Area of violation: LDR - General  
 Date violation determined: 01/14/1997  
 Date achieved compliance: 02/11/1997  
 Violation lead agency: EPA  
 Enforcement action: WRITTEN INFORMAL  
 Enforcement action date: 01/14/1997  
 Enf. disposition status: Not reported  
 Enf. disp. status date: Not reported  
 Enforcement lead agency: EPA  
 Proposed penalty amount: Not reported  
 Final penalty amount: Not reported  
 Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60  
 Area of violation: Generators - General  
 Date violation determined: 01/14/1997  
 Date achieved compliance: 02/11/1997

Regulation violated: S - 262.30-34.C  
 Area of violation: Generators - General  
 Date violation determined: 05/16/2000  
 Date achieved compliance: 12/20/2000  
 Violation lead agency: State  
 Enforcement action: INITIAL 3008(A) COMPLIANCE ORDER  
 Enforcement action date: 12/20/2000  
 Enf. disposition status: Not reported  
 Enf. disp. status date: Not reported  
 Enforcement lead agency: State  
 Proposed penalty amount: 7600  
 Final penalty amount: 7600  
 Paid penalty amount: Not reported

Regulation violated: S - 262.30-34.C  
 Area of violation: Generators - General  
 Date violation determined: 05/16/2000  
 Date achieved compliance: 12/20/2000  
 Violation lead agency: State  
 Enforcement action: INITIAL 3008(A) COMPLIANCE  
 Enforcement action date: 09/11/2000  
 Enf. disposition status: Not reported  
 Enf. disp. status date: Not reported  
 Enforcement lead agency: State  
 Proposed penalty amount: 9500  
 Final penalty amount: 7600  
 Paid penalty amount: Not reported

Regulation violated: S - 279.20-24  
 Area of violation: Used Oil - Generators  
 Date violation determined: 05/16/2000

Regulation violated: S - 262.30-34.C  
 Area of violation: Generators - General  
 Date violation determined: 05/16/2000  
 Date achieved compliance: 12/20/2000  
 Violation lead agency: State  
 Enforcement action: INITIAL 3008(A) COMPLIANCE ORDER  
 Enforcement action date: 12/20/2000  
 Enf. disposition status: Not reported  
 Enf. disp. status date: Not reported  
 Enforcement lead agency: State  
 Proposed penalty amount: 7600  
 Final penalty amount: 7600  
 Paid penalty amount: Not reported

Regulation violated: S - 262.30-34.C  
 Area of violation: Generators - General  
 Date violation determined: 05/16/2000  
 Date achieved compliance: 12/20/2000  
 Violation lead agency: State  
 Enforcement action: INITIAL 3008(A) COMPLIANCE ORDER  
 Enforcement action date: 12/20/2000  
 Enf. disposition status: Not reported  
 Enf. disp. status date: Not reported  
 Enforcement lead agency: State  
 Proposed penalty amount: 7600  
 Final penalty amount: 7600  
 Paid penalty amount: Not reported

Site

Site

Site

Site

Site

Site

Site

Site

Site

Site

Site

Map ID

Map ID

Map ID

Map ID

Map ID

Map ID

Map ID

Map ID

Map ID

Map ID

Map ID

Direction

Direction

Direction

Direction

Direction

Direction

Direction

Direction

Direction

Direction

Direction

Distance

Distance

Distance

Distance

Distance

Distance

Distance

Distance

Distance

Distance

Distance

Elevation

Elevation

Elevation

Elevation

Elevation

Elevation

Elevation

Elevation

Elevation

Elevation

Elevation

Database(s)

Database(s)

Database(s)

Database(s)

Database(s)

Database(s)

Database(s)

Database(s)

Database(s)

Database(s)

Database(s)

EPA ID Number

EPA ID Number

EPA ID Number

EPA ID Number

EPA ID Number

EPA ID Number

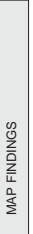
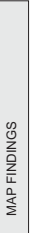
EPA ID Number

EPA ID Number

EPA ID Number

EPA ID Number

EPA ID Number



USCG I S C HONOLULU (Continued)

1000455802

1000455802

USCG I S C HONOLULU (Continued)

1000455802

1000455802

Violation lead agency:	EPA	WRITTEN INFORMAL
Enforcement action date:	01/14/1997	Not reported
Enf. disposition status:	Not reported	EPA
Enf. disp. status date:	Not reported	Not reported
Proposed penalty amount:	Not reported	Not reported
Final penalty amount:	Not reported	Not reported
Paid penalty amount:	Not reported	Not reported
Regulation violated:	FR - 262.30-34.C	Generators - General
Area of violation:	01/14/1997	02/11/1997
Date violation determined:	01/14/1997	EPA
Date achieved compliance:	02/11/1997	WRITTEN INFORMAL
Violation lead agency:	EPA	WRITTEN INFORMAL
Enforcement action date:	01/14/1997	Not reported
Enf. disposition status:	Not reported	Not reported
Enf. disp. status date:	Not reported	EPA
Enforcement lead agency:	EPA	Not reported
Proposed penalty amount:	Not reported	Not reported
Final penalty amount:	Not reported	Not reported
Paid penalty amount:	Not reported	Not reported
Regulation violated:	FR - 262.50-60	Generators - General
Area of violation:	01/09/1997	02/11/1997
Date violation determined:	01/09/1997	EPA
Date achieved compliance:	02/11/1997	WRITTEN INFORMAL
Violation lead agency:	EPA	WRITTEN INFORMAL
Enforcement action date:	01/14/1997	Not reported
Enf. disposition status:	Not reported	Not reported
Enf. disp. status date:	Not reported	EPA
Enforcement lead agency:	EPA	Not reported
Proposed penalty amount:	Not reported	Not reported
Final penalty amount:	Not reported	Not reported
Paid penalty amount:	Not reported	Not reported
Regulation violated:	FR - 268.7	LDR - General
Area of violation:	01/09/1997	02/24/2000
Date violation determined:	01/09/1997	EPA
Date achieved compliance:	02/24/2000	WRITTEN INFORMAL
Violation lead agency:	EPA	WRITTEN INFORMAL
Enforcement action date:	01/14/1997	Not reported
Enf. disposition status:	Not reported	Not reported
Enf. disp. status date:	Not reported	EPA
Enforcement lead agency:	EPA	Not reported
Proposed penalty amount:	Not reported	Not reported
Final penalty amount:	Not reported	Not reported
Paid penalty amount:	Not reported	Not reported
Regulation violated:	FR - 262.20-23.B	Generators - General
Area of violation:	04/04/1994	07/30/1994
Date violation determined:	04/04/1994	EPA
Date achieved compliance:	07/30/1994	COMPLIANCE EVALUATION INSPECTION ON-SITE
Violation lead agency:	EPA	Not reported
Enforcement action date:	04/09/2012	Not reported
Enf. disposition status:	COMPLIANCE EVALUATION INSPECTION ON-SITE	Not reported
Enf. disp. status date:	Not reported	State
Enforcement lead agency:	State	Not reported
Proposed penalty amount:	Not reported	Not reported
Final penalty amount:	Not reported	Not reported
Paid penalty amount:	Not reported	Not reported

**USCG I S C HONOLULU (Continued)** 1000455802

Evaluation date: 12/20/2000  
 Evaluation: NOT A SIGNIFICANT NON-COMPLIER  
 Area of violation: Not reported  
 Date achieved compliance: Not reported  
 Evaluation lead agency: State

Evaluation date: 09/11/2000  
 Evaluation: SIGNIFICANT NON-COMPLIER  
 Area of violation: Not reported  
 Date achieved compliance: Not reported  
 Evaluation lead agency: State

Evaluation date: 02/24/2000  
 Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
 Area of violation: Used Oil - Generators  
 Date achieved compliance: 12/20/2000  
 Evaluation lead agency: State

Evaluation date: 02/24/2000  
 Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
 Area of violation: Generators - General  
 Date achieved compliance: 12/20/2000  
 Evaluation lead agency: State

Evaluation date: 09/11/1996  
 Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
 Area of violation: LDR - General  
 Date achieved compliance: 02/24/2000  
 Evaluation lead agency: EPA

Evaluation date: 09/11/1996  
 Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
 Area of violation: LDR - General  
 Date achieved compliance: 02/11/1997  
 Evaluation lead agency: EPA

Evaluation date: 09/11/1996  
 Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
 Area of violation: Generators - General  
 Date achieved compliance: 02/11/1997  
 Evaluation lead agency: EPA

Evaluation date: 07/30/1994  
 Evaluation: NOT A SIGNIFICANT NON-COMPLIER  
 Area of violation: Not reported  
 Date achieved compliance: Not reported  
 Evaluation lead agency: EPA

Evaluation date: 04/04/1994  
 Evaluation: SIGNIFICANT NON-COMPLIER  
 Area of violation: Not reported  
 Date achieved compliance: Not reported  
 Evaluation lead agency: EPA

Evaluation date: 04/04/1994  
 Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
 Area of violation: Generators - General

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

**USCG I S C HONOLULU (Continued)** 1000455802

Date achieved compliance: 07/30/1994  
 Evaluation lead agency: EPA

**B9**  
**NNW**  
**1/8-1/4**  
**0.149 mi.**  
**785 ft.**  
**Relative:**  
**Higher**  
**Actual:**  
**3 ft.**

**RCRA-CESQG:**  
 Date form received by agency: 09/12/1999  
 Facility name: STATE OF HAWAII DLNR DBOR  
 Facility address: 4 SAND ISLAND ACCESS RD  
 Facility address: KEEHI BOAT HARBOR  
 HONOLULU, HI 96819  
 EPA ID: HIR00000240  
 Contact: WESLEY CHOI  
 Contact address: 4 SAND ISLAND ACCESS RD KEEHI BOAT HARBOR  
 HONOLULU, HI 96819  
 US  
 Contact country: (808) 832-3464  
 Contact telephone: Not reported  
 Contact email: 09  
 EPA Region: Classification:  
 Description: Conditionally Exempt Small Quantity Generator  
 Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

**RCRA-CESQG**  
**FINDS**  
**1004688939**  
**HIR00000240**

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

**USCG I S C HONOLULU (Continued)** 1000455802

**Owner/Operator Summary:**  
 Owner/operator name: STATE OF HAWAII DLNR DBOR  
 Owner/operator address: 333 QUEEN ST HONOLULU, HI 96813  
 Owner/operator country: Not reported  
 Owner/operator telephone: (808) 587-1973  
 Legal status: State  
 Owner/Operator Type: Owner  
 Owner/Op start date: Not reported  
 Owner/Op end date: Not reported

**Handler Activities Summary:**  
 U.S. importer of hazardous waste: No  
 Mixed waste (haz. and radioactive): No  
 Recycler of hazardous waste: No  
 Transporter of hazardous waste: No  
 Treater, storer or disposer of HW: No  
 Underground injection activity: No  
 On-site burner exemption: No

**STATE OF HAWAII DLNR DBOR (Continued)**  
 Furnace exemption: No  
 Used oil fuel burner: No  
 Used oil processor: No  
 Used oil refiner: No  
 Used oil fuel marketer to burner: No  
 Used oil Specification marketer: No  
 Used oil transfer facility: No  
 Used oil transporter: No  
 Violation Status: No violations found  
 FINDS:  
 Registry ID: 110005722922  
 Environmental Interest/Information System  
 US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.  
 RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.  
 STATE MASTER

**KAPALAMA MILITARY RESERVATION (Continued)**  
 Priority: Not reported  
 Assessment: Assessment Ongoing  
 Response: Not reported  
 Nature of Contamination: Not reported  
 Nature of Residual Contamination: Not reported  
 Use Restrictions: Undetermined  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: Not reported  
 Site Closure Type: Not reported  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Unassigned  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**KAPALAMA MILITARY RESERVATION (Continued)**  
 UST:  
 Facility ID: 9-100051  
 Owner: VERIZON HAWAII  
 Owner Address: 1177 BISHOP ST,P.O. BOX 2200 Hon,HI 96841  
 Owner City, St,Zip: Honolulu, 96819 96819  
 Latitude: Not reported  
 Longitude: Not reported  
 Horizontal Reference Datum: NAD83  
 Tank ID: R-001  
 Date Installed: 03/20/1987  
 Tank Status: Permanently Out of Use  
 Date Closed: 01/06/1997  
 Tank Capacity: 550  
 Substance: Gasoline  
 HI Financial Assurance:  
 Alt Facility ID: 9-100051  
 Tank ID: R-001  
 Tank Status: Permanently Out of Use  
 FRTYPE: Insurance  
 Expiration Date: Not reported  
 Alt Facility ID: 9-100051  
 Tank ID: R-001  
 Tank Status: Permanently Out of Use  
 FRTYPE: Other  
 Expiration Date: Not reported

**HAWAII FUELING FACILITIES CORPORATION-SAND ISLAND SLURRY WAL**  
**6 SAND ISLAND ACCESS RD**  
**HONOLULU, HI 96819**  
 Site 4 of 7 in cluster B  
 SHWS:  
 Organization: Not reported  
 Supplemental Location: Hawaii Fueling Facilities Sand Island  
 Island: Oahu  
 Environmental Interest: Hawaii Fueling Facilities Corporation-Sand Island Slurry Wall Trenching Activity  
 B11  
 NNW  
 1/8-1/4  
 0.171 mi.  
 904 ft.  
 Relative:  
 Higher  
 Actual:  
 3 ft.

**STATE OF HAWAII DLNR DBOR (Continued)**  
 Furnace exemption: No  
 Used oil fuel burner: No  
 Used oil processor: No  
 Used oil refiner: No  
 Used oil fuel marketer to burner: No  
 Used oil Specification marketer: No  
 Used oil transfer facility: No  
 Used oil transporter: No  
 Violation Status: No violations found  
 FINDS:  
 Registry ID: 110005722922  
 Environmental Interest/Information System  
 US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.  
 RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.  
 STATE MASTER

**KAPALAMA MILITARY RESERVATION (Continued)**  
 UST:  
 Facility ID: 9-100051  
 Owner: VERIZON HAWAII  
 Owner Address: 1177 BISHOP ST,P.O. BOX 2200 Hon,HI 96841  
 Owner City, St,Zip: Honolulu, 96819 96819  
 Latitude: Not reported  
 Longitude: Not reported  
 Horizontal Reference Datum: NAD83  
 Tank ID: R-001  
 Date Installed: 03/20/1987  
 Tank Status: Permanently Out of Use  
 Date Closed: 01/06/1997  
 Tank Capacity: 550  
 Substance: Gasoline  
 HI Financial Assurance:  
 Alt Facility ID: 9-100051  
 Tank ID: R-001  
 Tank Status: Permanently Out of Use  
 FRTYPE: Insurance  
 Expiration Date: Not reported  
 Alt Facility ID: 9-100051  
 Tank ID: R-001  
 Tank Status: Permanently Out of Use  
 FRTYPE: Other  
 Expiration Date: Not reported

**KAPALAMA MILITARY RESERVATION (Continued)**  
 UST:  
 Facility ID: 9-100051  
 Owner: VERIZON HAWAII  
 Owner Address: 1177 BISHOP ST,P.O. BOX 2200 Hon,HI 96841  
 Owner City, St,Zip: Honolulu, 96819 96819  
 Latitude: Not reported  
 Longitude: Not reported  
 Horizontal Reference Datum: NAD83  
 Tank ID: R-001  
 Date Installed: 03/20/1987  
 Tank Status: Permanently Out of Use  
 Date Closed: 01/06/1997  
 Tank Capacity: 550  
 Substance: Gasoline  
 HI Financial Assurance:  
 Alt Facility ID: 9-100051  
 Tank ID: R-001  
 Tank Status: Permanently Out of Use  
 FRTYPE: Insurance  
 Expiration Date: Not reported  
 Alt Facility ID: 9-100051  
 Tank ID: R-001  
 Tank Status: Permanently Out of Use  
 FRTYPE: Other  
 Expiration Date: Not reported

**HAWAII FUELING FACILITIES CORPORATION-SAND ISLAND SLURRY WAL**  
**6 SAND ISLAND ACCESS RD**  
**HONOLULU, HI 96819**  
 Site 4 of 7 in cluster B  
 SHWS:  
 Organization: Not reported  
 Supplemental Location: Hawaii Fueling Facilities Sand Island  
 Island: Oahu  
 Environmental Interest: Hawaii Fueling Facilities Corporation-Sand Island Slurry Wall Trenching Activity  
 B11  
 NNW  
 1/8-1/4  
 0.171 mi.  
 904 ft.  
 Relative:  
 Higher  
 Actual:  
 3 ft.



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site EDR ID Number Database(s) EPA ID Number

HAWAII FUELING FACILITIES CORPORATION-SAND ISLAND SLURRY WAL (Continued)

HID Number: Not reported  
Facility Registry Identifier: Not reported  
Lead Agency: HEER  
State: HEER  
Project Manager: Kelton Otsuka  
Hazard Priority: Medium  
Potential Hazards And Controls: Hazard Present  
Organization: Not reported  
Island: Oahu  
Supplemental Location Text: Hawaii Fueling Facilities Sand Island  
SDAR Environmental Interest Name: Hawaii Fueling Facilities Corporation-Sand Island Slurry Wall Trenching Activity  
HID Number: Not reported  
Facility Registry Identifier: Not reported  
Lead Agency: HEER  
State: HEER  
Potential Hazard And Controls: Hazard Present  
Priority: Medium  
Assessment: Assessment Ongoing  
Response: Response Ongoing  
Nature of Contamination: Presumed, Jet fuel contamination in soil and groundwater  
Nature of Residual Contamination: Not reported  
Use Restrictions: Controls Required to Manage Contamination  
Engineering Control: Not reported  
Description of Restrictions: Not reported  
Institutional Control: Not reported  
Within Designated Area-wide Contamination: Not reported  
Site Closure Type: Not reported  
Document Number: Not reported  
Document Subject: Not reported  
Project Manager: Kelton Otsuka  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:

Island: Oahu  
Supplemental Loc. Text: Hawaii Fueling Facilities Sand Island  
Case Number: 20080723-1500  
HID Number: Not reported  
Facility Registry Id: Not reported  
Lead and Program: HEER EP&R  
ER: Site Visit  
Units: ASIG Fuel Release NRC 878273  
Substances: Jet Fuel  
Less Or Greater Than: Not reported  
Numerical Quantity: 3400  
Units: Gallons  
Activity Type: Response  
Activity Lead: Liz Galvez  
Assessment End Date: 2008-08-20:00:00:00  
Result: Refer to ESST  
File Under: Hawaii Fueling Facilities Corporation

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site EDR ID Number Database(s) EPA ID Number

AIRCRAFT SERVICE INTERNATIONAL GROUP SAND ISLAND TERMINAL

B12  
NNW  
1/8-1/4  
0.171 mi.  
904 ft.  
Relative: Higher  
Actual: 3 ft.  
Date form received by agency: 08/28/2009  
Facility name: ROBINSON PREZIOSO INC  
Address: 6 SAND ISLAND ACCESS RD HONOLULU, HI 96812  
EPA ID: HIP000059022  
Mailing address: P O BOX 2448 SANTA FE SPRINGS, CA 90670  
Contact: DENNIS LYNCH  
Contact address: 9705 HWY 267 STE 6 TRUCKEE, CA 96161  
Contact country: US  
Contact telephone: (530) 587-3000  
Contact email: Not reported  
EPA Region: 09  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste  
Owner/Operator Summary: ROBINSON PREZIOSO INC  
Owner/operator name: P O BOX 2448  
Owner/operator address: SANTA FE SPRINGS, CA 90670  
Owner/operator telephone: Not reported  
Legal status: (662) 906-9002 Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 11/12/1999  
Site name: ROBINSON PREZIOSO INC  
Classification: Small Quantity Generator  
Violation Status: No violations found

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

**AIRCRAFT SERVICE INTERNATIONAL GROUP SAND ISLAND TERMINAL (Continued)**

1012178151

**HAWAII FUELING FACILITIES CORPORATION-SAND ISLAND ACCESS ROA (Continued)**

S111677227

**FINDS:**

Registry ID: 110055650834

Environmental Interest/Information System  
ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional Offices and Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include: Incident Tracking, Compliance Assistance, and Compliance Monitoring.

Registry ID: 110060289962

Environmental Interest/Information System  
US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

**HAWAII FUELING FACILITIES CORPORATION-SAND ISLAND ACCESS ROA & 8 SAND ISLAND ACCESS RD**

HI SHWS S111677227  
HI SPILLS N/A

B13  
NW  
1/8-1/4  
0.185 mi.  
977 ft.

Relative:  
Higher

Actual:  
3 ft.

**Site 6 of 7 in cluster B**

SHWS: Not reported  
Organization: Hawaii Fueling Facilities Sand Island  
Supplemental Location: Oahu  
Environmental Interest: Hawaii Fueling Facilities Corporation-Sand Island Access Road  
Facility Registry Identifier: 110013789668  
Lead Agency: HEER  
Program: State  
Project Manager: Eric Sadoyama  
Hazard Priority: Low  
Potential Hazards And Controls: Hazard Undetermined  
Organization: Not reported  
Island: Oahu  
Supplemental Location Text: Hawaii Fueling Facilities Sand Island  
SDAR Environmental Interest Name: Hawaii Fueling Facilities Corporation-Sand Island Access Road  
HID Number: Not reported  
Facility Registry Identifier: 110013789668

Lead Agency: HEER  
Program Name: State  
Potential Hazard And Controls: Hazard Undetermined  
Priority: Low  
Assessment: Assessment Ongoing  
Response: Not reported  
Nature of Contamination: Not reported  
Nature of Residual Contamination: Not reported  
Use Restrictions: Undetermined  
Engineering Control: Not reported  
Description of Restrictions: Not reported  
Institutional Control: Not reported  
Within Designated Area-wide Contamination: Honolulu Harbor Kapalama Unit  
Site Closure Type: Not reported  
Document Date: Not reported  
Document Number: Not reported  
Document Subject: Not reported  
Project Manager: Eric Sadoyama  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**HI SPILLS:**

Island: Oahu  
Supplemental Loc. Text: Hawaii Fueling Facilities Sand Island  
Case Number: 20051004-1630  
HID Number: Not reported  
Facility Registry Id: 110013789668  
Lead and Program: HEER EP&R  
ER: No  
Units: Aircraft Service International Group Security Breach  
Substances: None  
Less Or Greater Than: Not reported  
Numerical Quantity: Not reported  
Units: Not reported  
Activity Type: Response  
Activity Lead: Liz Galvez  
Assignment End Date: 2005-10-04 000000  
Result: SOS/NFA  
File Under: Hawaii Fueling Facilities Corporation

Island: Oahu  
Supplemental Loc. Text: Hawaii Fueling Facilities Sand Island  
Case Number: 19961119-1911  
HID Number: Not reported  
Facility Registry Id: 110013789668  
Lead and Program: HEER EP&R  
ER: No  
Units: Sand Island Approval to Discharge Tank Farm Facility Containment Water  
Substances: Waste water  
Less Or Greater Than: Not reported  
Numerical Quantity: Not reported  
Units: Not reported  
Activity Type: Response  
Activity Lead: Bill Perry  
Assignment End Date: Not reported  
Result: SOS/NFA  
File Under: Hawaii Fueling Facilities Corporation

**HAWAII FUELING FACILITIES CORPORATION-SAND ISLAND ACCESS ROA (Continued)** S111677227

Island: Oahu  
 Supplemental Loc. Text: Hawaii Fueling Facilities Sand Island  
 Case Number: 19880913  
 HID Number: Not reported  
 Facility Registry Id: 110013789668  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 LOCKHEED TANK YARD  
 Substances: Jet Fuel JP-4  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Not reported  
 Assignment End Date: SOSCF NFA  
 Result: Not reported  
 File Under: Hawaii Fueling Facilities Corporation

**HAWAII FUELING FACILITIES CORPORATION-SAND ISLAND TANK 4 REL** HI SHWS S111677229  
**8 SAND ISLAND ACCESS RD** HI SPILLS N/A  
**HONOLULU, HI** HI INST CONTROL

**Site 7 of 7 in cluster B**

SHWS:  
 Organization: Not reported  
 Supplemental Location: Hawaii Fueling Facilities Sand Island  
 Island: Oahu  
 Environmental Interest: Hawaii Fueling Facilities Corporation-Sand Island Oil/Water Drain Line Release  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Lead Agency: State  
 Project Manager: Kelton Otsuka  
 Hazard Priority: Low  
 Potential Hazards And Controls: Hazard Present  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Hawaii Fueling Facilities Sand Island  
 SDAR Environmental Interest Name: Hawaii Fueling Facilities Corporation-Sand Island Oil/Water Drain Line Release  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Lead Agency: State  
 Program Name: Hawaii Fueling Facilities Sand Island  
 Potential Hazard And Controls: Hazard Present  
 Priority: Low  
 Assessment: Response Necessary  
 Response: Response Ongoing  
 Nature of Contamination: Not reported  
 Use Restrictions: Not reported  
 Engineering Controls: Controls Required to Manage Contamination  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: Not reported  
 Site Closure Type: Not reported  
 Document Date: Not reported

**HAWAII FUELING FACILITIES CORPORATION-SAND ISLAND TANK 4 REL (Continued)** S111677229

Document Subject: Not reported  
 Project Manager: Kelton Otsuka  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Organization: Not reported  
 Supplemental Location: Hawaii Fueling Facilities Sand Island  
 Island: Oahu  
 Environmental Interest: Hawaii Fueling Facilities Corporation-Sand Island Tank 4 Release  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Lead Agency: State  
 Project Manager: Kelton Otsuka  
 Hazard Priority: Low  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Hawaii Fueling Facilities Sand Island  
 SDAR Environmental Interest Name: Hawaii Fueling Facilities Corporation-Sand Island Tank 4 Release  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Lead Agency: State  
 Program Name: Hawaii Fueling Facilities Sand Island  
 Potential Hazard And Controls: Hazard Managed With Controls  
 Priority: Low  
 Assessment: Response Necessary  
 Response: Response Complete  
 Nature of Contamination: Found: Contamination still currently on-site from another release (Release #20080110-1448). Old Release from 1996 has been given an NFA. Site is still active.  
 Use Restrictions: Not reported  
 Engineering Controls: Controls Required to Manage Contamination  
 Description of Restrictions: Not reported  
 Institutional Control: Government - Hawaii Dept. of Health Letter Issued  
 Within Designated Area-wide Contamination: Not reported  
 Site Closure Type: No Further Action Letter - Restricted Use  
 Document Date: 01/22/2010  
 Document Number: 2010-03-KO  
 Document Subject: No Further Action Determination for Hawaii Fueling Facilities Corporation-Sand Island Tank 4 Release  
 Project Manager: Kelton Otsuka  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:  
 Island: Oahu  
 Supplemental Loc. Text: Hawaii Fueling Facilities Sand Island  
 Case Number: 19960501-0810  
 HID Number: Not reported  
 Facility Registry Id: Not reported  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 Units: Hawaii Fueling Facilities Corporation, Airport Group International  
 Substances: Jet Fuel A/A1  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Site

MAP FINDINGS

EDR ID Number  
EPA ID Number

Database(s)

**HAWAII FUELING FACILITIES CORPORATION-SAND ISLAND TANK 4 REL (Continued)**

S111677229

**TOWCO - SAND ISLAND (Continued)**

S107769133

Activity Type: Response  
 Activity Lead: Mike Cripps  
 Assignment End Date: Not reported  
 Result: Refer to ISST  
 File Under: Hawaii Fueling Facilities Corporation

INST CONTROL:  
 Potential hazards and controls: Hazard Managed With Controls  
 Supplemental Location: Hawaii Fueling Facilities Sand Island  
 Zip Suffix: Not reported  
 Island: Oahu  
 Institutional Control: Government - Hawaii Dept. of Health Letter Issued

Organization: Not reported  
 Supplemental Location: Sand Island Waste Water Treatment Plant (WWTP)  
 Island: Oahu  
 Environmental Interest: Mokuone Electrical Substation  
 HID Number: Not reported  
 Facility Registry Identifier: Not reported  
 Lead Agency: Not reported  
 Program: State  
 Project Manager: Diane England  
 Hazard Priority: NFA  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Sand Island Waste Water Treatment Plant (WWTP)  
 SDR Environmental Interest Name: Mokuone Electrical Substation  
 HID Number: Not reported  
 Facility Registry Identifier: Not reported  
 Lead Agency: Not reported  
 Program Name: State  
 Potential Hazard And Controls: Hazard Managed With Controls  
 Priority: NFA  
 Assessment: Response Necessary  
 Response: Response Complete  
 Nature of Contamination: Found: Lead and petroleum contaminated soils.  
 Use Restrictions: Lead and petroleum contaminated soils  
 Engineering Control: Controls Required to Manage Contamination  
 Description of Restrictions: Engineering Control Required  
 SOIL: Restricted Use - Maintenance of a cap over lead and petroleum contaminated soils. GROUNDWATER: Unrestricted Use  
 Government - Hawaii Dept. of Health Letter Issued  
 Honolulu Harbor Sand Island Unit  
 No Further Action Letter - Restricted Use  
 11/13/2006  
 2006-697-DE  
 No Further Action Determination for Soil Contamination at 1350 Sand Island Parkway, Honolulu HI 9681  
 Diane England  
 (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**C15**  
**SE**  
 1/8-1/4  
 0.206 mi.  
 1090 ft.  
**Relative:**  
**Higher**  
**Actual:**  
**3 ft.**

HI SHWS S107769133  
 HI SHWS N/A  
 HI INST CONTROL  
 HI AIRS

**TOWCO - SAND ISLAND**  
 1350 SAND ISLAND PKWY  
 HONOLULU, HI 96819  
 Site 1 of 3 in cluster C

SHWS:  
 Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 Environmental Interest: Sand Island WWTP  
 HID Number: Not reported  
 Facility Registry Identifier: 110005726802  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Cal Miyahara  
 Hazard Priority: Low  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Sand Island WWTP  
 SDR Environmental Interest Name: Not reported  
 Facility Registry Identifier: 110005726802  
 Lead Agency: HEER  
 Program Name: State  
 Potential Hazard And Controls: Hazard Managed With Controls  
 Priority: Low  
 Assessment: Response Necessary  
 Response: Response Ongoing  
 Nature of Contamination: Found: PCBs in soil  
 Use Restrictions: PCBs in soil below TSCA levels.  
 Engineering Control: Controls Required to Manage Contamination  
 Description of Restrictions: The Site is limited to commercial use.  
 Institutional Control: Government - Hawaii Dept. of Health Letter Issued  
 Within Designated Area-wide Contamination: Honolulu Harbor Sand Island Unit  
 Site Closure Type: No Further Action Letter - Restricted Use  
 Document Date: 10/06/2006  
 Document Number: 2006-629-CAC  
 Document Subject: Review of the Final Site Investigation Report Sand Island Wastewater Treatment Plant, Honolulu HI, J  
 Cal Miyahara  
 (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Organization: Not reported  
 Supplemental Location: Sand Island Waste Water Treatment Plant (WWTP)  
 Island: Oahu  
 Environmental Interest: Mokuone Electrical Substation  
 HID Number: Not reported  
 Facility Registry Identifier: Not reported  
 Lead Agency: Not reported  
 Program: State  
 Project Manager: Diane England  
 Hazard Priority: NFA  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Sand Island Waste Water Treatment Plant (WWTP)  
 SDR Environmental Interest Name: Mokuone Electrical Substation  
 HID Number: Not reported  
 Facility Registry Identifier: Not reported  
 Lead Agency: Not reported  
 Program Name: State  
 Potential Hazard And Controls: Hazard Managed With Controls  
 Priority: NFA  
 Assessment: Response Necessary  
 Response: Response Complete  
 Nature of Contamination: Found: Lead and petroleum contaminated soils.  
 Use Restrictions: Lead and petroleum contaminated soils  
 Engineering Control: Controls Required to Manage Contamination  
 Description of Restrictions: Engineering Control Required  
 SOIL: Restricted Use - Maintenance of a cap over lead and petroleum contaminated soils. GROUNDWATER: Unrestricted Use  
 Government - Hawaii Dept. of Health Letter Issued  
 Honolulu Harbor Sand Island Unit  
 No Further Action Letter - Restricted Use  
 11/13/2006  
 2006-697-DE  
 No Further Action Determination for Soil Contamination at 1350 Sand Island Parkway, Honolulu HI 9681  
 Diane England  
 (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Map ID  
Direction  
Distance  
Elevation



Site

Database(s)

EDR ID Number  
EPA ID Number

Map ID  
Direction  
Distance  
Elevation



Site

Database(s)

EDR ID Number  
EPA ID Number

**TOWCO - SAND ISLAND (Continued)**

\$107769133

**TOWCO - SAND ISLAND (Continued)**

\$107769133

Program Name: State  
 Potential Hazard And Controls: Low  
 Priority: Assessment Ongoing  
 Response: Not reported  
 Nature of Contamination: Not reported  
 Use Restrictions: Not reported  
 Engineering Control: Undetermined  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: Honolulu Harbor Sand Island Unit  
 Site Closure Type: Not reported  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Unassigned  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**ENG CONTROLS:**  
 Supplemental Location Text: Not reported  
 Zip Suffix: Not reported  
 Island: Oahu  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Engineering Control: Engineering Control Required  
 Supplemental Location Text: Sand Island Waste Water Treatment Plant (WWTP)  
 Zip Suffix: Not reported  
 Island: Oahu  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Engineering Control: Engineering Control Required

**INST CONTROL:**  
 Potential hazards and controls: Hazard Managed With Controls  
 Supplemental Location Text: Not reported  
 Zip Suffix: Not reported  
 Island: Oahu  
 Institutional Control: Government - Hawaii Dept. of Health Letter issued  
 Potential hazards and controls: Hazard Managed With Controls  
 Supplemental Location Text: Sand Island Waste Water Treatment Plant (WWTP)  
 Zip Suffix: Not reported  
 Island: Oahu  
 Institutional Control: Government - Hawaii Dept. of Health Letter issued

**AIRS:**  
 Facility ID: 0216-05-N  
 Island: Oahu  
 Mailing Address: 1481 South King Street  
 Sand Island Wastewater Treatment Plant  
 Mailing City, St, Zip: Honolulu, HI 96814-2506  
 Contact Name: James Morrow  
 Consultant:  
 Sand Island Wastewater Treatment Plant Attachment IIA:1. This portion of the Noncovered Source Permit encompasses the following equipment and associated appurtenances: a. LO-Cat Odor Control System. Consists

of two (2) catalytic scrubbing towers followed by three (3) dual-bed activated carbon towers. Routed into a single stack 18.29 meters (60 feet) high. ii. Receives foul air from the following: (1) Influent Channels to the Primary Floator Clarifiers (2) Effluent Launderers for the Primary Floator Clarifiers (3) Sludge Thickener Tank (4) Clarifier Odor Control System. Consists of one (1) biotrickling filter system followed by one (1) activated carbon system. Routed into a single stack 17.37 meters (57 feet) high. ii. Receives foul air from the influent channel and primary clarifiers no. 7 and 8. c. Headworks Odor Control System. Consists of one (1) biotrickling filter system. Routed into a single stack 15.24 meters (50 feet) high. ii. Receives foul air from the following headworks areas: (1) Screens (2) Aerated Grit Chambers (3) Influent Receiving Area (4) Truckbay Area (5) Screening Hopper (6) Grit Hopper Attachment IIB:1. This portion of the Noncovered Source Permit encompasses the following equipment and associated appurtenances: a. Headworks Odor Control System. Consists of a biotrickling filter followed by dual bed carbon scrubbers. Routed into a single stack 22.6 meters (74 feet) high. 40,000 acfm flowrate (nominal). ii. Receives foul air from the following areas: Headworks. b. Solids Odor Control System. Consists of a biotrickling filter followed by dual bed carbon scrubbers. Routed into a single stack 22.6 meters (74 feet) high. 30,000 acfm flowrate (nominal). ii. Receives foul air from the following areas: Wet Sludge Storage Tanks (WSSST), Gravity Thickeners, Return Flow Pump Station and Makai Lift Station. c. Primary Clarifier Odor Control System. Consists of a biotrickling filter followed by dual bed carbon scrubbers. Routed into a single stack 22.6 meters (74 feet) high. 50,000 acfm flowrate (nominal). ii. Receives foul air from the following areas: Primary Clarifiers and North and South Influent Channel Attachment IIC:1. This portion of the Noncovered Source Permit encompasses the following equipment and associated appurtenances: Four (4) 2000 bhp (nominal) combustion electric/diesel engine effluent pumps. (Diesel engines - Caterpillar, model no. D-3516). Located at the dewatering facility effluent pump station.

Facility ID:  
 Island:  
 Mailing Address:  
 Local:  
 Mailing City, St, Zip:  
 Contact Name:  
 Contact Title:  
 Description:

0216-06-C  
 Oahu  
 630 Sand Island Parkway  
 Sand Island Wastewater Treatment Plant  
 Honolulu, HI 96819  
 Athan Adachi  
 Chief, Wastewater Treatment and Disposal Division  
 In-Vessel Bioconversion Facility 1. This Covered Source Permit encompasses the following equipment and associated appurtenances: a. Andritz DDS-40 Drying System (Exhaust Stack No. 1). Combustion Furnace (Heat capacity: 17.8 MMBtu/hr/2) Burns scrubbed digester gas or diesel fuel no. 2 (secondary fuel), propane for pilot light (3) Fuel consumption) Digester gas - 32,364 scfh/rib Diesel fuel no. 2 - 127 gph. Rotary Drum Dryer. Regenerative Thermal Oxidizer (RTO) (Heat capacity: 2.0 MMBtu/hr/2) Burns diesel fuel no. 2 (3) Fuel consumption: 14.3 gph. Wet Venturi Scrubber. Building Air Chemical Odor Control Scrubber (routed through Exhaust Stack No. 1). Capacity: 25,000 cfm. Two (2) Fugitive Dust Control Systems. Fugitive Dust Control System No. 1) Collects dust from the mixer, crusher-to-mixer and screen-to-silo bucket elevators, pellet cooler, and pneumatic conveyor (2) Consists of MAC Pulse Jet Filter (baghouse) (3) Exhaust from baghouse routed through RTO then through



**TOWCO - SAND ISLAND (Continued)**  
 Exhaust Stack No. 111 Fugitive Dust Control System No. 21) Collects dust from the pellet storage silos, pellet oiling and truck load 2) Consists of MAC Pulse Jet Dust Filter (baghouse) 3) Exhaust from baghouse routed through Building Air Chemical Odor Control/Scrubber then through Exhaust Stack No. 1d. Hot Water Boiler (Exhaust Stack No. 2) Heat capacity: 2.5 MMBtu/hr. Burns scrubbed digester gas or diesel fuel no. 2 (secondary fuel); propane for pilot/lightoil. Fuel consumption 1) Digester gas - 4.545 scf/hr. 2) Diesel fuel no. 2 - 17.9 gph. Waste Gas Burner Backup (Exhaust Stack No. 3): Capacity: 5,000 gph. Waste Gas Burner (Exhaust Stack No. 4): Vapour Biogas 244E Enclosed Burner System. Capacity: 20,862 scf/hr. Burns unscrubbed digester gas; propane and/or digester gas for pilot light

**SAND ISLAND WASTEWATER TREATMENT PLANT (Continued)**  
 Date form received by agency: 09/14/1995  
 SAND ISLAND WWTP  
 1350 SAND ISLAND  
 HONOLULU, HI 96819  
 RCRA-CESQG  
 Site 3 of 3 in cluster C  
 Relative: Higher  
 Actual: 3 ft.

**C16**  
**SE**  
 1/8-1/4  
 0.206 mi.  
 1090 ft.  
 Relative: Higher  
 Actual: 3 ft.

**SAND ISLAND WASTEWATER TREATMENT PLANT**  
 HONOLULU, HI 96819  
 Site 2 of 3 in cluster C

**LUST:**  
 Facility ID: 9-103745  
 Facility Status: Site Cleanup Completed (NFA)  
 Facility Status Date: 08/22/2002  
 Release ID: 020027  
 Project Officer: Shunsheng Fu

**U003858602**  
 HI LUST  
 HI UST  
 HI Financial Assurance

**C17**  
**SE**  
 1/8-1/4  
 0.206 mi.  
 1090 ft.  
 Relative: Higher  
 Actual: 3 ft.

**SAND ISLAND WWTP**  
 1350 SAND ISLAND  
 HONOLULU, HI 96819  
 RCRA-CESQG  
 Site 3 of 3 in cluster C  
 Date form received by agency: 09/14/1995  
 SAND ISLAND WWTP  
 1350 SAND ISLAND  
 HONOLULU, HI 96819  
 RCRA-CESQG  
 Site 3 of 3 in cluster C  
 Relative: Higher  
 Actual: 3 ft.

**LUST:**  
 Facility ID: 9-103745  
 Facility Status: Site Cleanup Completed (NFA)  
 Facility Status Date: 08/22/2002  
 Release ID: 020027  
 Project Officer: Shunsheng Fu

**U003858602**  
 HI LUST  
 HI UST  
 HI Financial Assurance

**C17**  
**SE**  
 1/8-1/4  
 0.206 mi.  
 1090 ft.  
 Relative: Higher  
 Actual: 3 ft.

**SAND ISLAND WWTP**  
 1350 SAND ISLAND  
 HONOLULU, HI 96819  
 RCRA-CESQG  
 Site 3 of 3 in cluster C  
 Date form received by agency: 09/14/1995  
 SAND ISLAND WWTP  
 1350 SAND ISLAND  
 HONOLULU, HI 96819  
 RCRA-CESQG  
 Site 3 of 3 in cluster C  
 Relative: Higher  
 Actual: 3 ft.

**LUST:**  
 Facility ID: 9-103745  
 Facility Status: Site Cleanup Completed (NFA)  
 Facility Status Date: 08/22/2002  
 Release ID: 020027  
 Project Officer: Shunsheng Fu

**U003858602**  
 HI LUST  
 HI UST  
 HI Financial Assurance

**C16**  
**SE**  
 1/8-1/4  
 0.206 mi.  
 1090 ft.  
 Relative: Higher  
 Actual: 3 ft.

**SAND ISLAND WASTEWATER TREATMENT PLANT**  
 HONOLULU, HI 96819  
 Site 2 of 3 in cluster C

**LUST:**  
 Facility ID: 9-103745  
 Facility Status: Site Cleanup Completed (NFA)  
 Facility Status Date: 08/22/2002  
 Release ID: 020027  
 Project Officer: Shunsheng Fu

**U003858602**  
 HI LUST  
 HI UST  
 HI Financial Assurance

**C17**  
**SE**  
 1/8-1/4  
 0.206 mi.  
 1090 ft.  
 Relative: Higher  
 Actual: 3 ft.

**SAND ISLAND WWTP**  
 1350 SAND ISLAND  
 HONOLULU, HI 96819  
 RCRA-CESQG  
 Site 3 of 3 in cluster C  
 Date form received by agency: 09/14/1995  
 SAND ISLAND WWTP  
 1350 SAND ISLAND  
 HONOLULU, HI 96819  
 RCRA-CESQG  
 Site 3 of 3 in cluster C  
 Relative: Higher  
 Actual: 3 ft.

**LUST:**  
 Facility ID: 9-103745  
 Facility Status: Site Cleanup Completed (NFA)  
 Facility Status Date: 08/22/2002  
 Release ID: 020027  
 Project Officer: Shunsheng Fu

**U003858602**  
 HI LUST  
 HI UST  
 HI Financial Assurance

**C16**  
**SE**  
 1/8-1/4  
 0.206 mi.  
 1090 ft.  
 Relative: Higher  
 Actual: 3 ft.

**SAND ISLAND WASTEWATER TREATMENT PLANT**  
 HONOLULU, HI 96819  
 Site 2 of 3 in cluster C

**LUST:**  
 Facility ID: 9-103745  
 Facility Status: Site Cleanup Completed (NFA)  
 Facility Status Date: 08/22/2002  
 Release ID: 020027  
 Project Officer: Shunsheng Fu

**U003858602**  
 HI LUST  
 HI UST  
 HI Financial Assurance

**C17**  
**SE**  
 1/8-1/4  
 0.206 mi.  
 1090 ft.  
 Relative: Higher  
 Actual: 3 ft.

**SAND ISLAND WWTP**  
 1350 SAND ISLAND  
 HONOLULU, HI 96819  
 RCRA-CESQG  
 Site 3 of 3 in cluster C  
 Date form received by agency: 09/14/1995  
 SAND ISLAND WWTP  
 1350 SAND ISLAND  
 HONOLULU, HI 96819  
 RCRA-CESQG  
 Site 3 of 3 in cluster C  
 Relative: Higher  
 Actual: 3 ft.

**LUST:**  
 Facility ID: 9-103745  
 Facility Status: Site Cleanup Completed (NFA)  
 Facility Status Date: 08/22/2002  
 Release ID: 020027  
 Project Officer: Shunsheng Fu

**U003858602**  
 HI LUST  
 HI UST  
 HI Financial Assurance

**C16**  
**SE**  
 1/8-1/4  
 0.206 mi.  
 1090 ft.  
 Relative: Higher  
 Actual: 3 ft.

**SAND ISLAND WASTEWATER TREATMENT PLANT**  
 HONOLULU, HI 96819  
 Site 2 of 3 in cluster C

**LUST:**  
 Facility ID: 9-103745  
 Facility Status: Site Cleanup Completed (NFA)  
 Facility Status Date: 08/22/2002  
 Release ID: 020027  
 Project Officer: Shunsheng Fu

**U003858602**  
 HI LUST  
 HI UST  
 HI Financial Assurance

**SAND ISLAND WWTP (Continued)**

Owner/Op start date: Not reported  
 Owner/Op end date: Not reported

Handler Activities Summary:  
 U.S. importer of hazardous waste: No  
 Mixed waste (haz. and radioactive): No  
 Recycler of hazardous waste: No  
 Transporter of hazardous waste: No  
 Treater, storer or disposer of HW: No  
 Underground injection activity: No  
 On-site burner exemption: No  
 Furnace exemption: No  
 Used oil fuel burner: No  
 User oil refiner: No  
 Used oil fuel marketer to burner: No  
 Used oil Specification marketer: No  
 Used oil transfer facility: No  
 Used oil transporter: No

Violation Status: No violations found

ICS:

Enforcement Action ID: 09-2004-0434  
 FRS ID: 110005726802  
 Program ID: HI-EHW 14194  
 Action Name: CITY AND COUNTY OF HONOLULU  
 Full Address: 1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319  
 State: Hawaii  
 Facility Name: Not reported  
 Facility Address: 1350 SAND ISLAND PARKWAY  
 HONOLULU HI 96819-4319  
 Facility County: Civil Judicial Action  
 EPA Region #: HONOLULU 9

Enforcement Action ID: 09-2004-0434  
 FRS ID: 110005726802  
 Program ID: RCRINFO/HDS82472383  
 Action Name: CITY AND COUNTY OF HONOLULU  
 Full Address: 1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319  
 State: Hawaii  
 Facility Name: SAND ISLAND WWTP  
 Facility Address: 1350 SAND ISLAND PARKWAY  
 HONOLULU HI 96819-4319  
 Facility County: Civil Judicial Action  
 EPA Region #: HONOLULU 9

Enforcement Action ID: 09-2004-0434  
 FRS ID: 110005726802  
 Program ID: CITY AND COUNTY OF HONOLULU  
 Action Name: CITY AND COUNTY OF HONOLULU  
 Full Address: 1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319  
 State: Hawaii  
 Facility Name: SAND ISLAND WWTP  
 Facility Address: 1350 SAND ISLAND PARKWAY  
 HONOLULU HI 96819-4319  
 Facility County: Civil Judicial Action  
 EPA Region #: HONOLULU 9

**SAND ISLAND WWTP (Continued)**

Enforcement Action Type: Civil Judicial Action  
 Facility County: HONOLULU  
 EPA Region #: 9

Enforcement Action ID: 09-2004-0434  
 FRS ID: 110005726802  
 Program ID: CWNS 15000003001  
 Action Name: CITY AND COUNTY OF HONOLULU  
 Full Address: 1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319  
 State: Hawaii  
 Facility Name: SAND ISLAND WWTP  
 Facility Address: 1350 SAND ISLAND PARKWAY  
 HONOLULU HI 96819-4319  
 Facility County: Civil Judicial Action  
 EPA Region #: HONOLULU 9

Enforcement Action ID: 09-2004-0434  
 FRS ID: 110005726802  
 Program ID: HI-EHW 8770  
 Action Name: CITY AND COUNTY OF HONOLULU  
 Full Address: 1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319  
 State: Hawaii  
 Facility Name: NAVAL AIR STATION - BARBERS POINT  
 Facility Address: 1350 SAND ISLAND PARKWAY  
 HONOLULU HI 96819-4319  
 Facility County: Civil Judicial Action  
 EPA Region #: HONOLULU 9

Enforcement Action ID: 09-2004-0434  
 FRS ID: 110005726802  
 Program ID: AIRS/AFS 1500300058  
 Action Name: CITY AND COUNTY OF HONOLULU  
 Full Address: 1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319  
 State: Hawaii  
 Facility Name: C&C SAND ISLAND WWTP  
 Facility Address: 1350 SAND ISLAND PARKWAY  
 HONOLULU HI 96819-4319  
 Facility County: Civil Judicial Action  
 EPA Region #: HONOLULU 9

Enforcement Action ID: 09-2004-0434  
 FRS ID: 110005726802  
 Program ID: HI-EHW 14227  
 Action Name: CITY AND COUNTY OF HONOLULU  
 Full Address: 1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319  
 State: Hawaii  
 Facility Name: Not reported  
 Facility Address: 1350 SAND ISLAND PARKWAY  
 HONOLULU HI 96819-4319  
 Facility County: Civil Judicial Action  
 EPA Region #: HONOLULU 9

SAND ISLAND WWTP (Continued)		1004688659	1004688659
Enforcement Action ID:	09-1991-0033	Hawaii	NAVAL AIR STATION - BARBERS POINT
FRS ID:	110005726802	HONOLULU, HI 96819-4319	1350 SAND ISLAND PARKWAY
Program ID:	HI-EHW 14194	HONOLULU, CITY AND COUNTY	Civil Judicial Action
Action Name:	1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319	Hawaii	HONOLULU
Full Address:	Not reported	1350 SAND ISLAND PARKWAY	9
State:	HONOLULU, HI 96819-4319	Enforcement Action ID:	09-1991-0033
Facility Name:	1350 SAND ISLAND PARKWAY	FRS ID:	110005726802
Facility Address:	HONOLULU, HI 96819-4319	Program ID:	AIRS/AFS 1500300058
Enforcement Action Type:	Civil Judicial Action	Action Name:	HONOLULU, CITY AND COUNTY
Facility County:	HONOLULU	Full Address:	1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319
EPA Region #:	9	State:	Hawaii
Enforcement Action ID:	09-1991-0033	Facility Name:	C&C SAND ISLAND WWTP
FRS ID:	110005726802	Facility Address:	1350 SAND ISLAND PARKWAY
Program ID:	RCRAINFO HID982472383	Enforcement Action Type:	Civil Judicial Action
Action Name:	HONOLULU, CITY AND COUNTY	Facility County:	HONOLULU
Full Address:	1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319	EPA Region #:	9
State:	Hawaii	Enforcement Action ID:	09-1991-0033
Facility Name:	SAND ISLAND WWTP	FRS ID:	110005726802
Facility Address:	1350 SAND ISLAND PARKWAY	Program ID:	HI-EHW 14227
Enforcement Action Type:	Civil Judicial Action	Action Name:	HONOLULU, CITY AND COUNTY
Facility County:	HONOLULU, HI 96819-4319	Full Address:	1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319
EPA Region #:	HONOLULU	State:	Hawaii
Enforcement Action ID:	09-1991-0033	Facility Name:	Not reported
FRS ID:	110005726802	Facility Address:	1350 SAND ISLAND PARKWAY
Program ID:	FRS 110005726802	Enforcement Action Type:	Civil Judicial Action
Action Name:	HONOLULU, CITY AND COUNTY	Facility County:	HONOLULU
Full Address:	1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319	EPA Region #:	9
State:	Hawaii	Program ID:	AIRS/AFS 1500300058
Facility Name:	SAND ISLAND WWTP	Facility Name:	SAND ISLAND WWTP
Facility Address:	1350 SAND ISLAND PARKWAY	Address:	1350 SAND ISLAND PARKWAY
Enforcement Action Type:	Civil Judicial Action	Tribal Indicator:	N
Facility County:	HONOLULU	Fed Facility:	No
EPA Region #:	9	NAIC Code:	Not reported
Enforcement Action ID:	09-1991-0033	SIC Code:	4952
FRS ID:	110005726802	Program ID:	CWNS 15000003001
Program ID:	HONOLULU, CITY AND COUNTY	Facility Name:	SAND ISLAND WWTP
Action Name:	1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319	Address:	1350 SAND ISLAND PARKWAY
Full Address:	Hawaii	Tribal Indicator:	N
State:	SAND ISLAND WWTP	Fed Facility:	No
Facility Name:	1350 SAND ISLAND PARKWAY	NAIC Code:	Not reported
Facility Address:	HONOLULU, HI 96819-4319	SIC Code:	4952
Enforcement Action Type:	Civil Judicial Action	Program ID:	FRS 110005726602
Facility County:	HONOLULU	Facility Name:	SAND ISLAND WWTP
EPA Region #:	9	Address:	1350 SAND ISLAND PARKWAY
Enforcement Action ID:	09-1991-0033	Tribal Indicator:	N
FRS ID:	110005726802	Fed Facility:	No
Program ID:	HI-EHW 8770	NAIC Code:	Not reported
Action Name:	HONOLULU, CITY AND COUNTY	SIC Code:	4952
Full Address:	1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319	Program ID:	FRS 110005726602

SAND ISLAND WWTP (Continued)		1004688659	1004688659
Enforcement Action ID:	09-1991-0033	Hawaii	NAVAL AIR STATION - BARBERS POINT
FRS ID:	110005726802	HONOLULU, HI 96819-4319	1350 SAND ISLAND PARKWAY
Program ID:	HI-EHW 14194	HONOLULU, CITY AND COUNTY	Civil Judicial Action
Action Name:	1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319	Hawaii	HONOLULU
Full Address:	Not reported	1350 SAND ISLAND PARKWAY	9
State:	HONOLULU, HI 96819-4319	Enforcement Action ID:	09-1991-0033
Facility Name:	1350 SAND ISLAND PARKWAY	FRS ID:	110005726802
Facility Address:	HONOLULU, HI 96819-4319	Program ID:	AIRS/AFS 1500300058
Enforcement Action Type:	Civil Judicial Action	Action Name:	HONOLULU, CITY AND COUNTY
Facility County:	HONOLULU	Full Address:	1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319
EPA Region #:	9	State:	Hawaii
Enforcement Action ID:	09-1991-0033	Facility Name:	C&C SAND ISLAND WWTP
FRS ID:	110005726802	Facility Address:	1350 SAND ISLAND PARKWAY
Program ID:	RCRAINFO HID982472383	Enforcement Action Type:	Civil Judicial Action
Action Name:	HONOLULU, CITY AND COUNTY	Facility County:	HONOLULU
Full Address:	1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319	EPA Region #:	9
State:	Hawaii	Enforcement Action ID:	09-1991-0033
Facility Name:	SAND ISLAND WWTP	FRS ID:	110005726802
Facility Address:	1350 SAND ISLAND PARKWAY	Program ID:	HI-EHW 14227
Enforcement Action Type:	Civil Judicial Action	Action Name:	HONOLULU, CITY AND COUNTY
Facility County:	HONOLULU, HI 96819-4319	Full Address:	1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319
EPA Region #:	HONOLULU	State:	Hawaii
Enforcement Action ID:	09-1991-0033	Facility Name:	Not reported
FRS ID:	110005726802	Facility Address:	1350 SAND ISLAND PARKWAY
Program ID:	FRS 110005726802	Enforcement Action Type:	Civil Judicial Action
Action Name:	HONOLULU, CITY AND COUNTY	Facility County:	HONOLULU
Full Address:	1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319	EPA Region #:	9
State:	Hawaii	Program ID:	AIRS/AFS 1500300058
Facility Name:	SAND ISLAND WWTP	Facility Name:	SAND ISLAND WWTP
Facility Address:	1350 SAND ISLAND PARKWAY	Address:	1350 SAND ISLAND PARKWAY
Enforcement Action Type:	Civil Judicial Action	Tribal Indicator:	N
Facility County:	HONOLULU	Fed Facility:	No
EPA Region #:	9	NAIC Code:	Not reported
Enforcement Action ID:	09-1991-0033	SIC Code:	4952
FRS ID:	110005726802	Program ID:	CWNS 15000003001
Program ID:	HONOLULU, CITY AND COUNTY	Facility Name:	SAND ISLAND WWTP
Action Name:	1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319	Address:	1350 SAND ISLAND PARKWAY
Full Address:	Hawaii	Tribal Indicator:	N
State:	SAND ISLAND WWTP	Fed Facility:	No
Facility Name:	1350 SAND ISLAND PARKWAY	NAIC Code:	Not reported
Facility Address:	HONOLULU, HI 96819-4319	SIC Code:	4952
Enforcement Action Type:	Civil Judicial Action	Program ID:	FRS 110005726602
Facility County:	HONOLULU	Facility Name:	SAND ISLAND WWTP
EPA Region #:	9	Address:	1350 SAND ISLAND PARKWAY
Enforcement Action ID:	09-1991-0033	Tribal Indicator:	N
FRS ID:	110005726802	Fed Facility:	No
Program ID:	HI-EHW 8770	NAIC Code:	Not reported
Action Name:	HONOLULU, CITY AND COUNTY	SIC Code:	4952
Full Address:	1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319	Program ID:	FRS 110005726602

**SAND ISLAND WWTP (Continued)** 1004688859

SIC Code:	4952
Program ID:	HI-EHW 14194
Facility Name:	SAND ISLAND WWTP
Address:	1350 SAND ISLAND PARKWAY
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	4952
Program ID:	HI-EHW 14227
Facility Name:	SAND ISLAND WWTP
Address:	1350 SAND ISLAND PARKWAY
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	4952
Program ID:	HI-EHW 8770
Facility Name:	SAND ISLAND WWTP
Address:	1350 SAND ISLAND PARKWAY
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	4952
Program ID:	RCRAINFO HID82472383
Facility Name:	SAND ISLAND WWTP
Address:	1350 SAND ISLAND PARKWAY
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	4952
Program ID:	AIRS/AFS *150030058
Facility Name:	SAND ISLAND WWTP
Address:	1350 SAND ISLAND PARKWAY
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	4952
Program ID:	CWNS 1500000001
Facility Name:	SAND ISLAND WWTP
Address:	1350 SAND ISLAND PARKWAY
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	4952
Program ID:	FRS 110005726802
Facility Name:	SAND ISLAND WWTP
Address:	1350 SAND ISLAND PARKWAY
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	4952

Map ID Direction Distance Elevation

**SAND ISLAND WWTP (Continued)** 1004688859

Program ID:	HI-EHW 14194
Facility Name:	SAND ISLAND WWTP
Address:	1350 SAND ISLAND PARKWAY
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	4952
Program ID:	HI-EHW 14227
Facility Name:	SAND ISLAND WWTP
Address:	1350 SAND ISLAND PARKWAY
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	4952
Program ID:	HI-EHW 8770
Facility Name:	SAND ISLAND WWTP
Address:	1350 SAND ISLAND PARKWAY
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	4952
Program ID:	RCRAINFO HID82472383
Facility Name:	SAND ISLAND WWTP
Address:	1350 SAND ISLAND PARKWAY
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	4952

Map ID Direction Distance Elevation

Environmental Interest/Information System  
 Environmental Interest/Information System  
 OSHA ESTABLISHMENT  
 Registry ID: 110046170585  
 Environmental Interest/Information System  
 US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (CIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.  
 STATE MASTER  
 AIRS (AFS):

**SAND ISLAND WWTP (Continued)** 1004688859

Compliance and Violation Data Major Sources:  
 EPA plant ID: 110005726802  
 Plant name: C&C HONOLULU - SAND ISLAND WWTP  
 Plant address: WWTP SAND ISLAND HONOLULU, HI 96820  
 County: HONOLULU  
 Region code: 09  
 Dunn & Bradst #: Not reported  
 Air quality ctrl region: Not reported  
 Sic code: 4952  
 Sic code desc: SEWERAGE SYSTEMS  
 North Am. industrial classif: 221320  
 NAIC code description: Sewage Treatment Facilities  
 Default compliance status: IN COMPLIANCE INSPECTION  
 Default classification: ACTUAL OR POTENTIAL EMISSIONS ARE ABOVE THE APPLICABLE MAJOR SOURCE THRESHOLDS  
 Govt facility: ALL OTHER FACILITIES NOT OWNED OR OPERATED BY A FEDERAL, STATE, OR LOCAL GOVERNMENT  
 Current HPV: Not reported

RCRA NonGen / NLR: DEPT OF BUSINESS ECON DEVL AND TOURISM  
 10 SAND ISLAND ACCESS RD  
 HONOLULU, HI 96813

RCRA NonGen / NLR: DEPT OF BUSINESS ECON DEVL AND TOURISM  
 10 SAND ISLAND ACCESS RD  
 HONOLULU, HI 96813

RCRA NonGen / NLR: DEPT OF BUSINESS ECON DEVL AND TOURISM  
 10 SAND ISLAND ACCESS RD  
 HONOLULU, HI 96813

RCRA NonGen / NLR: DEPT OF BUSINESS ECON DEVL AND TOURISM  
 10 SAND ISLAND ACCESS RD  
 HONOLULU, HI 96813

RCRA NonGen / NLR: DEPT OF BUSINESS ECON DEVL AND TOURISM  
 10 SAND ISLAND ACCESS RD  
 HONOLULU, HI 96813

RCRA NonGen / NLR: DEPT OF BUSINESS ECON DEVL AND TOURISM  
 10 SAND ISLAND ACCESS RD  
 HONOLULU, HI 96813

RCRA NonGen / NLR: DEPT OF BUSINESS ECON DEVL AND TOURISM  
 10 SAND ISLAND ACCESS RD  
 HONOLULU, HI 96813

RCRA NonGen / NLR: DEPT OF BUSINESS ECON DEVL AND TOURISM  
 10 SAND ISLAND ACCESS RD  
 HONOLULU, HI 96813

RCRA NonGen / NLR: DEPT OF BUSINESS ECON DEVL AND TOURISM  
 10 SAND ISLAND ACCESS RD  
 HONOLULU, HI 96813

**DEPT OF BUSINESS ECON DEVL AND TOURISM (Continued)** 1000978848

Handler Activities Summary:  
 U.S. importer of hazardous waste: No  
 Mixed waste (haz. and radioactive): No  
 Recycler of hazardous waste: No  
 Transporter of hazardous waste: No  
 Treater, storer or disposer of HW: No  
 On-site burner exemption: No  
 Furnace exemption: No  
 Used oil fuel burner: No  
 Used oil processor: No  
 Used oil refiner: No  
 Used oil fuel marketer to burner: No  
 Used oil Specification marketer: No  
 Used oil transfer facility: No  
 Used oil transporter: No  
 Violation Status: No violations found

Evaluation Action Summary: 04/12/1996  
 Evaluation date: COMPLIANCE EVALUATION INSPECTION ON-SITE  
 Evaluation: Not reported  
 Area of violation: Not reported  
 Date achieved compliance: Not reported  
 Evaluation lead agency: State

Registry ID: 110055115227  
 Environmental Interest/Information System: STATE MASTER  
 Registry ID: 110005722708  
 Environmental Interest/Information System: RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Registry ID: 110046200981  
 Environmental Interest/Information System: STATE MASTER

Registry ID: 110046200981  
 Environmental Interest/Information System: STATE MASTER

Registry ID: 110046200981  
 Environmental Interest/Information System: STATE MASTER

Registry ID: 110046200981  
 Environmental Interest/Information System: STATE MASTER

Registry ID: 110046200981  
 Environmental Interest/Information System: STATE MASTER

Registry ID: 110046200981  
 Environmental Interest/Information System: STATE MASTER

Registry ID: 110046200981  
 Environmental Interest/Information System: STATE MASTER



Map ID  
Direction  
Distance  
Elevation



Map ID  
Direction  
Distance  
Elevation



Site  
Database(s)  
EDR ID Number  
EPA ID Number

19  
ESE  
1/8-1/4  
0.247 mi.  
1303 ft.  
Relative:  
Higher  
Actual:  
3 ft.

HI LUST  
HI UST  
HI Financial Assurance

MATSON TERMINALS & MAINTENANCE F  
1411 SAND ISLAND ACCESS RD  
HONOLULU, HI 96819

MATSON TERMINALS & MAINTENANCE F (Continued)  
Gasoline  
U004223401

LUST:  
Facility ID: 9-100801  
Facility Status: Monitored Natural Attenuation  
Facility Status Date: 10/01/2001  
Release ID: 890011  
Project Officer: Shunsheng Fu

Substance:  
Tank ID: R-4  
Date Installed: 03/18/1981  
Tank Status: Permanently Out of Use  
Date Closed: 01/05/1996  
Tank Capacity: 10000  
Substance: Diesel

UST:  
Facility ID: 9-100801  
Owner: Matson Terminals  
Owner Address: P.O. Box 2630  
Honolulu, 96819 96819  
Latitude: 21.3089  
Longitude: -157.862  
Horizontal Reference Datum: NAD83

HI Financial Assurances:  
All Facility ID: 9-100801  
Tank Id: R-2  
Tank Status: Permanently Out of Use  
FR TYPE: Other  
Expiration Date: Not reported

Tank ID: 87  
Date Installed: 07/01/1996  
Tank Status: Currently In Use  
Date Closed: Not reported  
Tank Capacity: 5000  
Substance: Gasoline

All Facility ID: 9-100801  
Tank Id: R-4  
Tank Status: Permanently Out of Use  
FR TYPE: Other  
Expiration Date: Not reported

Tank ID: D  
Date Installed: 07/01/1996  
Tank Status: Currently In Use  
Date Closed: Not reported  
Tank Capacity: 10000  
Substance: Diesel

All Facility ID: 9-100801  
Tank Id: D  
Tank Status: Currently In Use  
FR TYPE: Other  
Expiration Date: Not reported

Tank ID: R-1  
Date Installed: 03/18/1981  
Tank Status: Permanently Out of Use  
Date Closed: 12/15/1995  
Tank Capacity: 1000  
Substance: Used Oil

All Facility ID: 9-100801  
Tank Id: R-3  
Tank Status: Permanently Out of Use  
FR TYPE: Other  
Expiration Date: Not reported

Tank ID: R-2  
Date Installed: 03/18/1981  
Tank Status: Permanently Out of Use  
Date Closed: 01/05/1996  
Tank Capacity: 2500  
Substance: Gasoline

All Facility ID: 9-100801  
Tank Id: R-1  
Tank Status: Permanently Out of Use  
FR TYPE: Other  
Expiration Date: Not reported

Tank ID: R-3  
Date Installed: 03/18/1981  
Tank Status: Permanently Out of Use  
Date Closed: 01/05/1996  
Tank Capacity: 5000

All Facility ID: 9-100801  
Tank Id: R-4  
Tank Status: Permanently Out of Use  
FR TYPE: Guarantee  
Expiration Date: 05/01/2014

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

EDR ID Number  
EPA ID Number  
Database(s)

Site

Site

Site

**MATSON TERMINALS & MAINTENANCE F (Continued)**

U004223401

**SAND ISLAND (Continued)**

1009311299

Expiration Date: 05/01/2014

Alt Facility ID: 9-100801  
 Tank Id: R-1  
 Tank Status: Permanently Out of Use  
 FRTYPE: Guarantee  
 Expiration Date: 05/01/2014

Alt Facility ID: 9-100801  
 Tank Id: D  
 Tank Status: Currently In Use  
 FRTYPE: Guarantee  
 Expiration Date: 05/01/2014

Alt Facility ID: 9-100801  
 Tank Id: 87  
 Tank Status: Currently In Use  
 FRTYPE: Guarantee  
 Expiration Date: 05/01/2014

Alt Facility ID: 9-100801  
 Tank Id: R-3  
 Tank Status: Permanently Out of Use  
 FRTYPE: Guarantee  
 Expiration Date: 05/01/2014

Grant type: Not reported  
 H  
 Phase II Environmental Assessment  
 0  
 Accomplishment type: n/a  
 Accomplishment count: Not reported  
 Cooperative agreement #: Not reported  
 Ownership entity: Unknown  
 Current owner: Not reported  
 Did owner change: Not reported  
 Cleanup required: Not reported  
 Video available: Not reported  
 Photo available: U  
 Institutional controls required: Not reported  
 IC Category proprietary controls: Not reported  
 IC cat. info. devices: Not reported  
 IC cat. gov. controls: Not reported  
 IC cat. enforcement permit tools: Not reported  
 IC in place date: Not reported  
 IC in place: Not reported  
 State/tribal program date: Not reported  
 State/tribal program ID: Not reported  
 State/tribal NFA date: Not reported  
 Air contaminated: Not reported  
 Air cleaned: Not reported  
 Asbestos found: Not reported  
 Asbestos cleaned: Not reported  
 Controlled substance found: Not reported  
 Controlled substance cleaned: Not reported  
 Drinking water affected: Not reported  
 Drinking water cleaned: Not reported  
 Groundwater affected: Not reported  
 Groundwater cleaned: Not reported  
 Lead contaminant found: Not reported  
 Lead cleaned up: Not reported  
 No media affected: Not reported  
 Unknown media affected: Not reported  
 Other metals found: Not reported  
 Other metals cleaned: Not reported  
 Other contaminants found: Not reported  
 Other contaminants cleaned: Not reported  
 PAHs found: Not reported  
 PAHs cleaned up: Not reported  
 PCBs found: Not reported  
 PCBs cleaned up: Not reported  
 Petro products found: Not reported  
 Petro products cleaned: Not reported  
 Sediments found: Not reported  
 Sediments cleaned: Not reported  
 Soil affected: Not reported  
 Soil cleaned up: Not reported  
 Surface water cleaned: Not reported  
 VOCs found: Not reported  
 VOCs cleaned: Not reported  
 Cleanup other description: Not reported  
 Num. of cleanup and re-dev. jobs: Not reported  
 Past use greenspace acreage: Not reported  
 Past use residential acreage: Not reported

20  
 SSE  
 1/4-1/2  
 0.264 mi.  
 1393 ft.

US BROWNFIELDS 1009311299

**SAND ISLAND**

1009311299

Relative:  
 Higher

Actual:  
 3 ft.

N/A

**US BROWNFIELDS**

US BROWNFIELDS:  
 Recipient name: R9 Brownfields TBA (previously Superfund TBA)  
 Grant type: TBA  
 Property name: SAND ISLAND  
 Property #: Not reported  
 Parcel size: 173.7  
 Property Description: Not reported  
 Latitude: 21.3158878  
 Longitude: -157.88867170000003  
 HCM label: Address Matching-House Number  
 Map scale: Not reported  
 Point of reference: Entrance Point of a Facility or Station  
 Datum: North American Datum of 1983  
 ACRS property ID: 11227  
 Start date: Not reported  
 Completed date: Not reported  
 Acres cleaned up: Not reported  
 Cleanup funding: Not reported  
 Cleanup funding source: Not reported  
 Assessment funding: 53018  
 Assessment funding source: US EPA - TBA Funding  
 Redevelopment funding: Not reported  
 Redevelopment funding source: Not reported  
 Redevelopment start date: Not reported  
 Redevelopment start date: Not reported  
 Assessment funding entity: EPA

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Site

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Database(s)

EDR ID Number  
EPA ID Number

**SAND ISLAND (Continued)**

1009311239

1009311239

Past use commercial acreage: Not reported  
Past use industrial acreage: Not reported  
Future use greenspace acreage: Not reported  
Future use residential acreage: Not reported  
Future use commercial acreage: Not reported  
Future use industrial acreage: Not reported  
Greenspace acreage and type: Not reported  
Superfund Fed. landowner flag: Not reported  
Arsenic cleaned up: Not reported  
Cadmium cleaned up: Not reported  
Chromium cleaned up: Not reported  
Copper cleaned up: Not reported  
Iron cleaned up: Not reported  
mercury cleaned up: Not reported  
nickel cleaned up: Not reported  
No clean up: Not reported  
Pesticides cleaned up: Not reported  
Selenium cleaned up: Not reported  
SVOCs cleaned up: Not reported  
Unknown clean up: Not reported  
Arsenic contaminant found: Not reported  
Cadmium contaminant found: Not reported  
Chromium contaminant found: Not reported  
Copper contaminant found: Not reported  
Iron contaminant found: Not reported  
Mercury contaminant found: Not reported  
Nickel contaminant found: Not reported  
No contaminant found: Not reported  
Pesticides contaminant found: Not reported  
Selenium contaminant found: Not reported  
SVOCs contaminant found: Not reported  
Unknown contaminant found: Not reported  
Future Use: Multistory Not reported  
Media affected Bluiding Material: Not reported  
Media affected indoor air: Not reported  
Building material media cleaned up: Not reported  
Indoor air media cleaned up: Not reported  
Unknown media cleaned up: Not reported  
Past Use: Multistory Not reported

Recipient name: R9 Brownfields TBA (previously Superfund TBA)

Grant type: TBA  
Property name: SAND ISLAND  
Property #: Not reported  
Parcel size: 173.7  
Property Description: Not reported  
Latitude: 21.3158787  
Longitude: -157.88867170000003  
HCM label: Address Matching-House Number  
Map scale: Not reported  
Point of reference: Entrance Point of a Facility or Station  
Datum: North American Datum of 1983  
ACRES property ID: 11227  
Start date: Not reported  
Completed date: Not reported  
Acres cleaned up: Not reported  
Cleanup funding: Not reported

**SAND ISLAND (Continued)**

1009311239

1009311239

Cleanup funding source: Not reported  
Assessment funding: 2500  
US EPA - TBA Funding  
Redevelopment funding source: Not reported  
Redev. funding source: Not reported  
Redev. funding entity name: Not reported  
Redevelopment start date: Not reported  
Assessment funding entity: EPA  
Cleanup funding entity: Not reported  
Grant type: H  
Phase I Environmental Assessment  
Accomplishment count: 1  
Cooperative agreement #: n/a  
Ownership entity: Not reported  
Current owner: Not reported  
Did owner change: Not reported  
Cleanup required: Unknown  
Video available: Not reported  
Photo available: Not reported  
Institutional controls required: U  
IC Category proprietary controls: Not reported  
IC cat. info. devices: Not reported  
IC cat. gov. controls: Not reported  
IC cat. enforcement permit tools: Not reported  
IC in place date: Not reported  
IC in place: Not reported  
State/tribal program date: Not reported  
State/tribal program ID: Not reported  
State/tribal NFA date: Not reported  
Air contaminated: Not reported  
Air cleaned: Not reported  
Asbestos found: Not reported  
Asbestos cleaned: Not reported  
Controlled substance found: Not reported  
Controlled substance cleaned: Not reported  
Drinking water affected: Not reported  
Drinking water cleaned: Not reported  
Groundwater affected: Not reported  
Groundwater cleaned: Not reported  
Lead contaminant found: Not reported  
Lead cleaned up: Not reported  
No media affected: Not reported  
Unknown media affected: Not reported  
Other cleaned up: Not reported  
Other metals found: Not reported  
Other metals cleaned: Not reported  
Other contaminants found: Not reported  
Other contaminants cleaned: Not reported  
PAHs found: Not reported  
PAHs cleaned up: Not reported  
PCBs found: Not reported  
PCBs cleaned up: Not reported  
Petro products found: Not reported  
Petro products cleaned: Not reported  
Sediments found: Not reported  
Sediments cleaned: Not reported  
Soil affected: Not reported  
Soil cleaned: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

**SAND ISLAND (Continued)**

Soil cleaned up: Not reported  
 Surface water cleaned: Not reported  
 VOCs found: Not reported  
 Cleanup other description: Not reported  
 Num. of cleanup and re-dev. jobs: Not reported  
 Past use greenspace acreage: Not reported  
 Past use residential acreage: Not reported  
 Past use commercial acreage: Not reported  
 Past use industrial acreage: Not reported  
 Future use greenspace acreage: Not reported  
 Future use residential acreage: Not reported  
 Future use commercial acreage: Not reported  
 Future use industrial acreage: Not reported  
 Greenspace acreage and type: Not reported  
 Superfund Fed. landowner flag: Not reported  
 Arsenic cleaned up: Not reported  
 Cadmium cleaned up: Not reported  
 Chromium cleaned up: Not reported  
 Copper cleaned up: Not reported  
 Iron cleaned up: Not reported  
 mercury cleaned up: Not reported  
 nickel cleaned up: Not reported  
 No clean up: Not reported  
 Pesticides cleaned up: Not reported  
 Selenium cleaned up: Not reported  
 SVOCs cleaned up: Not reported  
 Unknown clean up: Not reported  
 Arsenic contaminant found: Not reported  
 Cadmium contaminant found: Not reported  
 Chromium contaminant found: Not reported  
 Copper contaminant found: Not reported  
 Iron contaminant found: Not reported  
 Mercury contaminant found: Not reported  
 Nickel contaminant found: Not reported  
 No contaminant found: Not reported  
 Pesticides contaminant found: Not reported  
 Selenium contaminant found: Not reported  
 SVOCs contaminant found: Not reported  
 Unknown contaminant found: Not reported  
 Future Use: Multistory  
 Media affected Blinding Material: Not reported  
 Media affected indoor air: Not reported  
 Building material media cleaned up: Not reported  
 Indoor air media cleaned up: Not reported  
 Unknown media cleaned up: Not reported  
 Past Use: Multistory

21

Map ID  
Direction  
Distance  
Elevation

Site

EDR ID Number  
EPA ID Number

Database(s)

MAP FINDINGS

KAPALAMA MILITARY RESERVATION  
 BLDG 942 TANK 942-1, 942-2, 942-3  
 SCHOFIELD BARRACKS, HI 96786  
 0.382 mi.  
 2018 ft.  
 Relative:  
 Higher  
 Actual:  
 3 ft.

LUST:  
 Facility ID: 9-201507  
 Case Transferred to HEER (regulated)  
 Facility Status: 05/20/2008  
 Release ID: 890030  
 Project Officer: To Heer

UST:  
 Facility ID: 9-201507  
 U.S. ARMY SUPPORT COMMAND, HAWAII DPW  
 Owner Address: BLDG 105, WHEELER ARMY AIRFIELD  
 Owner City, St, Zip: Schofield Barracks, 96786 96786  
 Latitude: 21.32  
 Longitude: -157.89  
 Horizontal Reference Datum: NAD83

Tank ID: R-942-1  
 Date Installed: Not reported  
 Tank Status: Permanently Out of Use  
 Date Closed: 01/01/1989  
 Tank Capacity: 2000  
 Substance: Diesel

Tank ID: R-942-2  
 Date Installed: Not reported  
 Tank Status: Permanently Out of Use  
 Date Closed: 01/01/1989  
 Tank Capacity: 3000  
 Substance: Gasoline

Tank ID: R-942-3  
 Date Installed: Not reported  
 Tank Status: Permanently Out of Use  
 Date Closed: 05/01/1987  
 Tank Capacity: 3800  
 Substance: Kerosene

D22

Map ID  
Direction  
Distance  
Elevation

Site

EDR ID Number  
EPA ID Number

Database(s)

MAP FINDINGS

TOMMY OF HAWAII, INC  
 1812 AUIKI ST  
 HONOLULU, HI 96819  
 Site 1 of 3 in cluster D  
 0.476 mi.  
 2512 ft.  
 Relative:  
 Higher  
 Actual:  
 3 ft.

LUST:  
 Facility ID: 9-1-00664  
 Site Cleanup Completed (NFA)  
 Facility Status: 07/06/1994  
 Release ID: 890119  
 Project Officer: Eric Saoboyama

Map ID  
Direction  
Distance  
Elevation



Site

EDR ID Number  
EPA ID Number

Map ID  
Direction  
Distance  
Elevation



Site

EDR ID Number  
EPA ID Number

**TOMMY OF HAWAII, INC (Continued)**

U003154474

**HAWAIIAN MASON & PLASTER UNION**

U003154613

UST:  
Facility ID: 9-100664  
Owner: TOMMY OF HAWAII, INC  
Owner Address: 1812 AUIKI ST  
Owner City, St, Zip: Honolulu, 96819 96819  
Latitude: 21.3216  
Longitude: -157.886  
Horizontal Reference Datum: **NHMB83**  
Tank ID: R-1  
Date Installed: Not reported  
Tank Status: **Permanently Out of Use**  
Date Closed: 07/30/1993  
Tank Capacity: 1000  
Substance: Gasoline

24  
North  
1/4-1/2  
0.487 mi.  
2569 ft.  
Relative:  
Higher  
Actual:  
3 ft.

1930 AUIKI ST  
HONOLULU, HI 96819  
9-1-02738  
Site Cleanup Completed (NFA)  
02/28/1995  
930102  
Raymond Seid  
Facility ID:  
Facility Status:  
Facility Status Date:  
Release ID:  
Project Officer:

HI LUST  
HI SPILLS  
HI AFS

UST:  
Facility ID: 9-102738  
Owner: DON DETRICH  
Owner Address: SENTINEL ASSOCIATES / 1930 AUIKI ST  
Owner City, St, Zip: Honolulu, 96819 96819  
Latitude: 21.3219  
Longitude: -157.888  
Horizontal Reference Datum: **NHMB83**

9-1-02738  
Site Cleanup Completed (NFA)  
02/28/1995  
930102  
Raymond Seid

UST:  
Facility ID: 9-102738  
Owner: DON DETRICH  
Owner Address: SENTINEL ASSOCIATES / 1930 AUIKI ST  
Owner City, St, Zip: Honolulu, 96819 96819  
Latitude: 21.3219  
Longitude: -157.888  
Horizontal Reference Datum: **NHMB83**

**MODERN MACARONI CO, LTD**

1006843774

HI LUST  
HI Financial Assurance

1708 MARY ST  
HONOLULU, HI 96819  
Site 2 of 3 in cluster D  
UST:  
Facility ID: 9-102957  
Facility Status: Site Cleanup Completed (NFA)  
Date Closed: 05/01/1995  
Release ID: 940162  
Project Officer: Roger Brewer

North  
1/4-1/2  
0.484 mi.  
2557 ft.  
Relative:  
Higher  
Actual:  
3 ft.

03/30/1978  
Permanently Out of Use  
04/27/1993  
10000  
Gasoline  
Date Installed:  
Tank Status:  
Date Closed:  
Tank Capacity:  
Substance:

**MODERN MACARONI CO, LTD**

1006843774

HI LUST  
HI Financial Assurance

1708 MARY ST  
HONOLULU, HI 96819  
Site 2 of 3 in cluster D  
UST:  
Facility ID: 9-102957  
Facility Status: Site Cleanup Completed (NFA)  
Date Closed: 05/01/1995  
Release ID: 940162  
Project Officer: Roger Brewer

North  
1/4-1/2  
0.484 mi.  
2557 ft.  
Relative:  
Higher  
Actual:  
3 ft.

03/30/1978  
Permanently Out of Use  
04/27/1993  
10000  
Gasoline  
Date Installed:  
Tank Status:  
Date Closed:  
Tank Capacity:  
Substance:

UST:  
Facility ID: 9-102957  
Owner: MODERN MACARONI CO, LTD  
Owner Address: 1708 MARY ST  
Owner City, St, Zip: Honolulu, 96819 96819  
Latitude: 21.3215  
Longitude: -157.886  
Horizontal Reference Datum: **NHMB83**  
Tank ID: R-1  
Date Installed: 01/01/1969  
Tank Status: **Permanently Out of Use**  
Date Closed: 06/27/1994  
Tank Capacity: 550  
Substance: Diesel

North  
1/4-1/2  
0.484 mi.  
2557 ft.  
Relative:  
Higher  
Actual:  
3 ft.

03/30/1978  
Permanently Out of Use  
04/27/1993  
10000  
Gasoline  
Date Installed:  
Tank Status:  
Date Closed:  
Tank Capacity:  
Substance:

HI Financial Assurance:  
Alt Facility ID:  
Tank ID:  
Tank Status:  
FRTYPE:  
Expiration Date:

0278-02-C  
Oahu  
Not reported  
Not reported  
HI  
Geoid, James "Jim" Fox  
Chief Engineer  
125 HP and 300 HP Johnston Boilers, Large Area Source Dry Cleaning  
Facility Attachment I/A Boilers This permit encompasses the following

0278-02-C  
Oahu  
Not reported  
Not reported  
HI  
Geoid, James "Jim" Fox  
Chief Engineer  
125 HP and 300 HP Johnston Boilers, Large Area Source Dry Cleaning  
Facility Attachment I/A Boilers This permit encompasses the following



**HAWAIIAN MASON & PLASTERERS UNION (Continued)** U003154613  
 equipment Unit No. Description Model No. Serial No. B-1125 hp Johnston  
 BoilerPFA-125-3LHP-190ST0431B-2300 hp Johnston  
 BoilerPFA-300-4LG-150S 947-0 Attachment 1B Large Area Source Dry  
 Cleaning Facility This permit encompasses each Large Area Source dry  
 covers "existing" and "new" dry-to-dry machine and transfer machine  
 systems (also referred to as dry cleaning systems) that are located  
 at a dry cleaning facility. Issuance of this permit is based on the  
 dry cleaning facility's yearly total PERC consumption being  
 inclusively between: 1,140 to 2,100 gallons for each dry cleaning  
 facility containing only dry-to-dry machine(s); or 2,140 to 1,800  
 gallons for each dry cleaning facility containing both dry-to-dry  
 machine(s) and transfer machine system(s); or 3,200 to 1,800 gallons  
 for each dry cleaning facility containing only transfer machine  
 system(s).

**HAWAIIAN MISO AND SOY CO., LTD** 1006821063  
 1714 MARY ST HI SHWS  
 HONOLULU, HI 96819 HI SPILLS  
 N/A  
 Site 3 of 3 in cluster D

Organization: Not reported  
 Supplemental Loc. Text: Not reported  
 Island: Oahu  
 HID Number: Not reported  
 Environmental Interest: Hawaiian Miso and Soy Co., Ltd  
 Facility Registry Identifier: 110013791049  
 Lead Agency: HEER  
 Project Manager: Diane Englund  
 Hazard Priority: NFA  
 Potential Hazards And Controls: No Hazard  
 Organization: Not reported  
 Supplemental Loc. Text: Not reported  
 HID Number: Not reported  
 SDA Environmental Interest Name: Hawaiian Miso and Soy Co., Ltd  
 Facility Registry Identifier: 110013791049  
 Lead Agency: HEER  
 Program Name: State  
 Potential Hazard And Controls: No Hazard  
 Priority: NFA  
 Assessment: Response Necessary  
 Response: Response Complete  
 Nature of Contamination: Found: Petroleum in soil and groundwater  
 Nature of Residual Contamination: No petroleum in soil and groundwater) contamination left on site is above EALs

Use Restrictions: No Hazard Present For Unrestricted Residential Use  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: Not reported  
 Site Closure Type: No Further Action Letter - Unrestricted Residential Use  
 Document Number: 1/1/14/2005  
 Document Date: 2005-079-DE  
 Document Subject: No Further Action Determination for Release No. 19920722-4

**HAWAIIAN MISO AND SOY CO., LTD (Continued)** 1006821063  
 Project Manager: Diane Englund  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:  
 Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 19920722-4  
 HID Number: Not reported  
 Facility Registry Id: 110013791049  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 Units: Hawaiian Miso and Soy Co., Ltd.  
 Substances: Diesel Fuel  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Bill Perry  
 Assignment End Date: Not reported  
 Result: SOSOC NFA  
 File Under: Hawaiian Miso & Soy Co. Ltd.

Organization: Not reported  
 Supplemental Loc. Text: Not reported  
 Island: Oahu  
 HID Number: Not reported  
 Facility Registry Identifier: 110013791049  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Unassigned  
 Hazard Priority: Low

**HAWAIIAN MISO AND SOY CO., LTD** U003541752  
 2101 AUIKI ST HI SHWS  
 HONOLULU, HI 96819 HI Financial Assurance  
 Site 1 of 2 in cluster E

Organization: Not reported  
 Supplemental Loc. Text: Not reported  
 Case Number: 19930419-1  
 HID Number: Not reported  
 Facility Registry Id: 110013791049  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 Units: Hawaiian Miso & Soy Co Ltd, 1714 Mary Street, Honolulu, Oahu, HI  
 Substances: Diesel Fuel  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Mike Cripps  
 Assignment End Date: Not reported  
 Result: SOSOC NFA  
 File Under: Hawaiian Miso & Soy Co. Ltd.

Relative: Higher  
 Actual: 3 ft.

**VEHICLE PROCESSING CENTER**  
 2101 AUIKI ST HI SHWS  
 HONOLULU, HI 96819 HI Financial Assurance  
 Site 1 of 2 in cluster E

Organization: Not reported  
 Supplemental Loc. Text: Not reported  
 Island: Oahu  
 HID Number: Not reported  
 Facility Registry Identifier: 110013778992  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Unassigned  
 Hazard Priority: Low

Map ID  
Direction  
Distance  
Elevation



Site

EDR ID Number  
EPA ID Number

Database(s)



EDR ID Number  
EPA ID Number

Database(s)

VEHICLE PROCESSING CENTER (Continued)

U003541752

VEHICLE PROCESSING CENTER (Continued)

U003541752

Potential Hazards And Controls: Hazard Undetermined  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Not reported  
 SDAR Environmental Interest Name: Servco Pacific, Inc. Kalhi  
 HID Number: Not reported  
 Facility Registry Identifier: 110013778992  
 Lead Agency: HEER  
 Program Name: State  
 Potential Hazard And Controls: Hazard Undetermined  
 Priority: Low  
 Assessment: Assessment Ongoing  
 Response: Not reported  
 Nature of Contamination: Not reported  
 Nature of Residual Contamination: Not reported  
 Use Restrictions: Undetermined  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: Honolulu Harbor Kapalama Unit  
 Site Closure Type: Not reported  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Unassigned  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

UST:

Facility ID: 9-102000  
 Owner: SERVO PACIFIC INC. DBA VEHICLE PROCESSING CENTER  
 Owner Address: 2101 AIUKI STREET  
 Owner City, St, Zip: Honolulu, 96819 96819  
 Latitude: 21.3206  
 Longitude: -157.89  
 Horizontal Reference Datum: **NAD83**

Tank ID: 1  
 Date Installed: 06/06/1990  
**Tank Status: Currently in Use**  
 Date Closed: Not reported  
 Tank Capacity: 550  
 Substance: Used Oil

HI Financial Assurance:

Alt Facility ID: 9-102000  
 Tank ID: 1  
 Tank Status: Currently in Use  
 FRTYPE: Trust Fund  
 Expiration Date: 05/26/2005  
 Alt Facility ID: 9-102000  
 Tank ID: 1  
 Tank Status: Currently in Use  
 FRTYPE: Letter of Credit  
 Expiration Date: 11/27/2008

Map ID  
Direction  
Distance  
Elevation



Site

EDR ID Number  
EPA ID Number

Database(s)

VEHICLE PROCESSING CENTER (Continued)

U003541752

Alt Facility ID: 9-102000  
 Tank ID: 1  
 Tank Status: Currently in Use  
 FRTYPE: Insurance  
 Expiration Date: 12/17/2014

E27  
 NNW  
 1/2-1  
 0.531 mi.  
 2805 ft.

Relative: Higher

Actual: 3 ft.

SHWS:  
 Site 2 of 2 in cluster E

HI SHWS S110061242  
 N/A

Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 Environmental Interest: 2135 Auiki St  
 HID Number: Not reported  
 Facility Registry Identifier: Not reported  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Cal Miyahara  
 Hazard Priority: Medium  
 Potential Hazards And Controls: Hazard Present  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Not reported  
 SDAR Environmental Interest Name: 2135 Auiki St  
 HID Number: Not reported  
 Facility Registry Identifier: Not reported  
 Lead Agency: HEER  
 Program Name: State  
 Potential Hazard And Controls: Hazard Present  
 Priority: Medium  
 Assessment: Response Necessary  
 Response: Response Ongoing  
 Nature of Contamination: Found: Arsenic, barium, cadmium, lead, TPH diesel and oil, and PCB in soil above HDOH Interim Final EAL, PCB in groundwater above HDOH Interim Final EAL from the northwest area of the site.  
 Nature of Residual Contamination: Controls Required to Manage Contamination  
 Use Restrictions: Not reported  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: Honolulu Harbor Sand Island Unit  
 Site Closure Type: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Cal Miyahara  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Map ID  
Direction  
Distance  
Elevation



Site  
Elevation  
Distance  
Direction  
Map ID

Database(s)  
EPA ID Number  
EDR ID Number

**F28**  
**NNW**  
**1/2-1**  
**0.561 mi.**  
**2960 ft.**  
**Relative:**  
**Higher**  
**Actual:**  
**3 ft.**

**MCKESSON WINE & SPIRITS CO.**  
**80 SAND ISLAND ACCESS RD**  
**HONOLULU, HI 96819**  
**Site 1 of 2 in cluster F**

SHWS:  
Organization: Not reported  
Supplemental Location: Not reported  
Island: Oahu  
Environmental Interest: Mckesson Drug Company/Sealmasters  
HID Number: 110013358384  
Facility Registry Identifier: HEER  
Lead Agency: State  
Program: Clarence Callahan  
Hazard Priority: NFA  
Potential Hazards And Controls: No Hazard  
Organization: Not reported  
Supplemental Location Text: Not reported  
SDAR Environmental Interest Name: Mckesson Drug Company/Sealmasters  
HID Number: Not reported  
Facility Registry Identifier: 110013358384  
Lead Agency: HEER  
Program Name: State  
Potential Hazard And Controls: No Hazard  
Priority: NFA  
Assessment: Response Necessary  
Response: Complete  
Nature of Contamination: Not reported  
Use Restrictions: very low levels of Benzol(a)pyrene and Fluoranthene in groundwater  
Engineering Control: No Hazard Present For Unrestricted Residential Use  
Description of Restrictions: Not reported  
Institutional Control: Not reported  
Within Designated Area-wide Contamination: Not reported  
Site Closure Type: No Further Action Letter - Unrestricted Residential Use  
Document Number: 11032203  
Document Subject: 2005-389-CAC  
Project Manager: NFA Letter based on confirmed changes to document  
Contact Information: Clarence Callahan (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**HI SHWS**  
**HI LUST**  
**HI SPILLS**  
**HI Financial Assurance**

**MCKESSON WINE & SPIRITS CO. (Continued)**

**MCKESSON WINE & SPIRITS CO. (Continued)**  
**Horizontal Reference Datum NAD83**

Tank ID: R-1  
Date Installed: 05/07/1980  
Tank Status: **Permanently Out of Use**  
Date Closed: 09/16/1997  
Tank Capacity: 4000  
Substance: Gasoline  
  
Tank ID: R-2  
Date Installed: 05/07/1980  
Tank Status: **Permanently Out of Use**  
Date Closed: 09/16/1997  
Tank Capacity: 4000  
Substance: Gasoline  
  
Tank ID: R-3  
Date Installed: 05/07/1980  
Tank Status: **Permanently Out of Use**  
Date Closed: 09/16/1997  
Tank Capacity: 6000  
Substance: Diesel

HI SPILLS:  
Island: Oahu  
Supplemental Loc. Text: Not reported  
Case Number: 199110142  
HID Number: Not reported  
Facility Registry Id: 110013358384  
Lead and Program: HEER EP&R  
ER: Not reported  
Units: Sealmasters of Hawaii  
Substances: Oil  
Less Or Greater Than: Not reported  
Numerical Quantity: Not reported  
Units: Not reported  
Activity Type: Response  
Activity Lead: Mike Cripps  
Assignment End Date: Not reported  
Result: SOSO NFA  
File Under: Mckesson Drug Company  
  
Island: Oahu  
Supplemental Loc. Text: Not reported  
Case Number: 19930329-1  
HID Number: Not reported  
Facility Registry Id: 110013358384  
Lead and Program: HEER EP&R  
ER: Not reported  
Units: Seal Masters Pooling at Mckesson, 80 Sand Island Access Rd, Honolulu, Oahu, HI  
Substances: Black Liquid (Neogou)  
Less Or Greater Than: Not reported  
Numerical Quantity: Not reported  
Units: Not reported  
Activity Type: Response

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Site

Database(s)  
EDR ID Number  
EPA ID Number

**MCKESSON WINE & SPIRITS CO. (Continued)**

Activity Lead: Not reported  
Assignment End Date: Not reported  
Result: SOSC NFA  
File Under: McKesson Drug Company

HI Financial Assurance:  
Alt Facility ID: 9-100277  
Tank Id: R-1  
Tank Status: Permanently Out of Use  
FRTYPE: Not Listed  
Expiration Date: Not reported

Alt Facility ID: 9-100277  
Tank Id: R-2  
Tank Status: Permanently Out of Use  
FRTYPE: Not Listed  
Expiration Date: Not reported

Alt Facility ID: 9-100277  
Tank Id: R-3  
Tank Status: Permanently Out of Use  
FRTYPE: Not Listed  
Expiration Date: Not reported

**USPS VEHICLE MAINTENANCE FACILITY**

**F29**  
**NW**  
**1/2-1**  
**0.578 mi.**  
**3050 ft.**  
**Relative:**  
**Higher**  
**Actual:**  
**3 ft.**

**89 SAND ISLAND ACCESS RD**  
**HONOLULU, HI 96819**

**Site 2 of 2 in cluster F**

SHWS:  
Organization: Not reported  
Supplemental Location: Not reported  
Island: Oahu  
Environmental Interest: USPS Vehicle Maintenance Facility Hydraulic Fluid Spill  
HID Number: Not reported  
Facility Registry Identifier: 110014044630  
Lead Agency: HEER  
Program: State  
Project Manager: Laura Young  
Hazard Priority: Hazard Present  
Organization: Not reported  
Island: Oahu  
Potential Hazards And Controls: Hazard Present

Supplemental Location Text: Not reported  
SDAR Environmental Interest Name: USPS Vehicle Maintenance Facility Hydraulic Fluid Spill  
HID Number: Not reported  
Facility Registry Identifier: 110014044630  
Lead Agency: HEER  
Program Name: State  
Potential Hazard And Controls: Hazard Present  
Priority: Low

Assessment: Response Necessary  
Response: Response Ongoing  
Nature of Contamination: Found: Petroleum in groundwater and soil.  
Nature of Residual Contamination: Not reported  
Use Restrictions: Controls Required to Manage Contamination

HI SHWS  
HI UIC  
HI SPILLS

**USPS VEHICLE MAINTENANCE FACILITY (Continued)**

Engineering Control: Not reported  
Description of Restrictions: Not reported  
Institutional Control: Not reported  
Within Designated Area-wide Contamination: Honolulu Harbor Kapaemahu Unit  
Site Closure Type: Not reported  
Document Date: Not reported  
Document Number: Not reported  
Document Subject: Not reported  
Project Manager: Laura Young  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**UIC:**

UIC Permit Number: UIC-2017  
Facility Id/Lat/Long Minutes Coordinates: 3, 083,  
Central Latitude Of The Site: 21 19 30  
Central Longitude Of The Site: 157 53 40  
Flow In Gallons Per Day: 0  
Total Number Of Inj. Well(S) On Permit: 1  
Island: Oahu  
Location In Relation To UIC Line: below  
Facility Type: IND:HI  
Subclass: AB  
Facility Operator, Not Contract Opr: U.S. Postal Service  
Operator Address: 89 Sand Island Rd., HON HI 96819-2200  
Facility Owner: U.S. postal Service  
Owner Address: 89 Sand Island Rd., HON HI 96819-2200  
Tax Map Key Number: 1:1-2:25:037  
Owner Of Land Property On Leasehold: none  
Consultant Serving The Application: Belt Collins  
Receipt Of Initial Application: Not reported  
Public Notice Date: Not reported  
Approval-To-Construct Issuance Date: Not reported  
Exemption Issuance Date: Not reported  
1st Issuance Of Permit: Not reported  
Last Issuance Of Permit: Not reported  
Type: Not reported  
Permit Expiration Date: Not reported  
Date When File Is Closed: Not reported  
UIC Project Geologist: JR  
Remarks: Not reported

**HI SPILLS:**

Island: Oahu  
Supplemental Loc. Text: 19971217-1617  
Case Number: Not reported  
HID Number: 110014044630  
Facility Registry Id: HEER EP&R  
Lead and Program: No  
ER: No  
Units: United States Postal Service Hydraulic Fluid Spill  
Substances: Hydraulic Fluid  
Less Or Greater Than: Not reported  
Numerical Quantity: Not reported  
Units: Not reported  
Activity Type: Response  
Activity Lead: Liz Galvez

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

**USPS VEHICLE MAINTENANCE FACILITY (Continued)**

S103290180

**TRANS HAWAIIAN - OAHU, INC. (Continued)**

U003221615

Assignment End Date: Not reported  
Result: Refer to ISST  
File Under: United States, Postal Service

Facility Status Date: 09/13/2007  
Release ID: 990019  
Project Officer: Richard Takaba

**G30**  
North  
1/2-1  
0.605 mi.  
3195 ft.

**HI SHWS**  
HI LUST  
HI LUST

**9-100804**  
TRANS HAWAIIAN - OAHU, INC. OAHU  
720 Iwilei Rd. Suite 101  
Honolulu, 96819 96819  
21, 3237  
-157, 889  
Horizontal Reference Datum NAD83

**Relative:**  
Higher  
**Actual:**  
3 ft.

**Site 1 of 2 in cluster G**  
SHWS:  
Organization: Not reported  
Supplemental Location: Not reported  
Island: Oahu  
Environmental Interest: Trans Hawaiian Site  
HID Number: Not reported  
Facility Registry Identifier: 110013774433  
Lead Agency: SHWB  
State:  
Program: Eric Sadoyama  
Project Manager: Eric Sadoyama  
Hazard Priority: NFA  
Potential Hazards And Controls: No Hazard  
Organization: Not reported  
Island: Oahu  
Supplemental Location Text: Trans Hawaiian Site  
SDAR Environmental Interest Name: Not reported  
HID Number: Not reported  
Facility Registry Identifier: 110013774433  
Lead Agency: SHWB  
Program Name: State  
Potential Hazard And Controls: No Hazard  
Priority: NFA  
Assessment: Assessment Ongoing  
Response: Not reported  
Nature of Contamination: Not reported  
Use Restrictions: Not reported  
Engineering Control: No Hazard Present for Unrestricted Residential Use  
Description of Restrictions: Not reported  
Institutional Control: Not reported  
Within Designated Areawide Contamination: Not reported  
Site Closure Type: NA - Type Undetermined  
Document Date: 12/09/2005  
Document Number: Not reported  
Document Subject: Not reported  
Project Manager: Eric Sadoyama  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**U003221615**  
N/A

UST:  
Facility ID: 9-100804  
Owner: TRANS HAWAIIAN - OAHU, INC. OAHU  
Owner Address: 720 Iwilei Rd. Suite 101  
Owner City, St., Zip: Honolulu, 96819 96819  
Latitude: 21, 3237  
Longitude: -157, 889  
Horizontal Reference Datum NAD83  
Tank ID: R-1  
Date Installed: 03/12/1971  
Tank Status: Permanently Out of Use  
Date Closed: 11/28/1992  
Tank Capacity: 550  
Substance: Gasoline

**Relative:**  
Higher  
**Actual:**  
3 ft.

**31**  
ESE  
1/2-1  
0.610 mi.  
3222 ft.

**HI SHWS**  
S115488665  
N/A

**1122 MAKEPONO STREET**  
**1122 MAKEPONO STREET**  
**HONOLULU, HI 96819**  
SHWS:  
Organization: Not reported  
Supplemental Location: Not reported  
Island: Oahu  
Environmental Interest: 1122 Makepono Street  
HID Number: Not reported  
Facility Registry Identifier: HEER  
Lead Agency: HEER  
Program: State  
Project Manager: Eric Sadoyama  
Hazard Priority: NFA  
Potential Hazards And Controls: No Hazard  
Organization: Not reported  
Island: Oahu  
Supplemental Location Text: Not reported

**Relative:**  
Higher  
**Actual:**  
3 ft.

**31**  
ESE  
1/2-1  
0.610 mi.  
3222 ft.

**HI SHWS**  
S115488665  
N/A

**1122 MAKEPONO STREET**  
**1122 MAKEPONO STREET**  
**HONOLULU, HI 96819**  
SHWS:  
Organization: Not reported  
Supplemental Location: Not reported  
Island: Oahu  
Environmental Interest: 1122 Makepono Street  
HID Number: Not reported  
Facility Registry Identifier: HEER  
Lead Agency: HEER  
Program: State  
Project Manager: Eric Sadoyama  
Hazard Priority: NFA  
Potential Hazards And Controls: No Hazard  
Organization: Not reported  
Island: Oahu  
Supplemental Location Text: Not reported



**1122 MAKEPONO STREET (Continued)**  
 SDAR Environmental Interest Name: 1122 Makepono Street  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 State: Not reported  
 Potential Hazard And Controls: No Hazard  
 Priority: NFA  
 Assessment: Response Necessary  
 Response: Response Complete  
 Nature of Contamination: Found: PCBs in soil  
 Nature of Residual Contamination: No Hazard Present For Unrestricted Residential Use  
 Use Restrictions: Not reported  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: No Further Action Letter - Unrestricted Residential Use  
 Site Closure Type: 01/30/2014  
 Document Number: 2014-033-ES  
 Document Subject: No Further Action Determination for 1122 Makepono Street  
 Project Manager: Eric Sadoyama  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**1122 MAKEPONO STREET (Continued)**  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: No Further Action - Type Undetermined  
 Document Date: 05/02/2005  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Fenix Grange  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**STATE POULTRY PROCESSORS FACILITY**  
 HI SHWS S104534384  
 HI SPILLS N/A

**STATE POULTRY PROCESSORS FACILITY**  
 HI SHWS S104534384  
 HI SPILLS N/A

**G32 North**  
 1/2-1  
 0.621 mi.  
 3278 ft.  
**Relative: Higher**  
**Actual: 3 ft.**

**G32 North**  
 1/2-1  
 0.621 mi.  
 3278 ft.  
**Relative: Higher**  
**Actual: 3 ft.**

**H33 NNW**  
 1/2-1  
 0.623 mi.  
 3290 ft.  
**Relative: Higher**  
**Actual: 3 ft.**

**H33 NNW**  
 1/2-1  
 0.623 mi.  
 3290 ft.  
**Relative: Higher**  
**Actual: 3 ft.**

**STATE POULTRY PROCESSORS FACILITY**  
 HI SHWS U003221583  
 HI SPILLS N/A

**STATE POULTRY PROCESSORS FACILITY**  
 HI SHWS U003221583  
 HI SPILLS N/A

**FORMER FLYNN LEARNER**  
 120 SAND ISLAND ACCESS RD  
 HONOLULU, HI 96819  
 Site 1 of 2 in cluster H

**FORMER FLYNN LEARNER**  
 120 SAND ISLAND ACCESS RD  
 HONOLULU, HI 96819  
 Site 1 of 2 in cluster H

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number  
Database(s)

**FORMER FLYNN LEARNER (Continued)**

U003221553

**FORMER FLYNN LEARNER (Continued)**

U003221563

Environmental Interest:  
 Former Flynn-Leamer Property  
 HID Number: 11000527963  
 Facility Registry Identifier: Not reported  
 Lead Agency: Voluntary Response Program  
 Project Manager: Eric Saobayama  
 Hazard Priority: NFA  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Not reported  
 SDAR Environmental Interest Name: Former Flynn-Leamer Property  
 HID Number: HID98-468363  
 Facility Registry Identifier: 11000527963  
 Lead Agency: Not reported  
 Program Name: Voluntary Response Program  
 Potential Hazard And Controls: Hazard Managed With Controls  
 Priority: NFA  
 Assessment: Response Necessary  
 Response: Response Complete  
 Nature of Contamination: Not reported  
 Nature of Residual Contamination: Controls Required to Manage Contamination  
 Use Restrictions: Engineering Control Required  
 Engineering Control: Prohibit Any Activity That May Disturb the Integrity of the Capping System  
 Description of Restrictions:  
 Institutional Control: Government - Hawaii Dept. of Health Letter issued  
 Within Designated Area-wide Contamination:  
 Site Closure Type: Not reported  
 Letter of Completion - Restricted Use  
 Document Date: 07/21/2004  
 Document Number: Not reported  
 Letter of Completion (LOC)  
 Project Manager: Eric Saobayama  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

LUST:  
 Facility ID: 9-100209  
 Facility Status: Site Cleanup Completed (NFA)  
 Facility Status Date: 10/02/2006  
 Release ID: 960059  
 Project Officer: Darren Park

UST:  
 Facility ID: 9-100209  
 Owner: FLYNN LEARNER  
 Owner Address: Campbell Industrial Park#91-056 Hanua St  
 Owner City,St,Zip: Honolulu, 96819 96819  
 Latitude: 21.3238  
 Longitude: -157.891  
 Horizontal Reference Datum: NAD83

Tank ID: R-1  
 Date Installed: 08/14/1984  
**Tank Status: Permanently Out of Use**  
 Date Closed: 03/28/1996  
 Tank Capacity: 1000

Substance: Gasoline  
 ENG CONTROLS:  
 Supplemental Location Text: Not reported  
 Zip Suffix: Not reported  
 Island: Oahu  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Engineering Control: Engineering Control Required  
 INST CONTROL:  
 Potential hazards and controls: Hazard Managed With Controls  
 Supplemental Location: Not reported  
 Zip Suffix: Not reported  
 Island: Oahu  
 Institutional Control: Government - Hawaii Dept. of Health Letter issued  
 VCP:  
 Program: Voluntary Response Program  
 Zip Suffix: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu

**158 SAND ISLAND ACCESS RD  
HONOLULU, HI**

HI SHWS S110067240  
N/A

**Site 2 of 2 in cluster H**

SHWS:  
 Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 Environmental Interest: 158 Sand Island Access Rd  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Lead Agency: State  
 Project Manager: Cal Miyahara  
 Hazard Priority: Medium  
 Potential Hazards And Controls: Hazard Present  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Not reported  
 SDAR Environmental Interest Name: 158 Sand Island Access Rd  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Lead Agency: State  
 Program Name: Hazard Present  
 Potential Hazard And Controls: Medium  
 Assessment: Response Necessary  
 Response: Response Ongoing  
 Nature of Contamination: Found: Arsenic, barium, cadmium, lead, petroleum hydrocarbon, and PCB in soils above HDQH Interim Final EALs.  
 Nature of Residual Contamination: Not reported  
 Use Restrictions: Controls Required to Manage Contamination

Relative:  
 Higher  
 Actual:  
 3 ft.

Map ID  
Direction  
Distance  
Elevation



Site EDR ID Number Database(s)

158 SAND ISLAND ACCESS RD (Continued)

Engineering Control: Not reported  
Description of Restrictions: Not reported  
Institutional Control: Honolulu Harbor Sand Island Unit  
Within Designated Areawide Contamination: Not reported  
Site Closure Type: Not reported  
Document Date: Not reported  
Document Number: Not reported  
Document Subject: Not reported  
Project Manager: Cal Miyahara  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

180 SAND ISLAND ACCESS RD  
180 SAND ISLAND ACCESS RD  
HONOLULU, HI

HI SHWS S110061241  
NIA

35  
North  
1/2-1  
0.686 mi.  
36.20 ft.  
Relative:  
Higher  
Actual:  
3 ft.

SHWS:  
Organization: Not reported  
Supplemental Location: Not reported  
Island: Oahu  
Environmental Interest: 180 Sand Island Access Rd  
HID Number: Not reported  
Facility Registry Identifier: HEER  
Lead Agency: HEER  
Program: State  
Project Manager: Cal Miyahara  
Hazard Priority: Medium  
Potential Hazards And Controls: Hazard Present  
Organization: Not reported  
Island: Oahu  
Supplemental Location Text: Not reported  
SDAR Environmental Interest Name: 180 Sand Island Access Rd  
HID Number: Not reported  
Facility Registry Identifier: HEER  
Lead Agency: HEER  
Program Name: State  
Potential Hazard And Controls: Hazard Present  
Priority: Medium  
Assessment: Response Necessary  
Response: Response Ongoing  
Nature of Contamination: Petroleum contamination found in soil near southwest boundary.  
Nature of Residual Contamination: Not reported  
Use Restrictions: Controls Required to Manage Contamination  
Engineering Control: Not reported  
Description of Restrictions: Not reported  
Institutional Control: Not reported  
Within Designated Areawide Contamination: Honolulu Harbor Sand Island Unit  
Site Closure Type: Not reported  
Document Date: Not reported  
Document Number: Not reported  
Document Subject: Not reported  
Project Manager: Cal Miyahara  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Map ID  
Direction  
Distance  
Elevation



Site EDR ID Number Database(s)

36  
NW  
1/2-1  
0.721 mi.  
3807 ft.  
Relative:  
Higher  
Actual:  
3 ft.

AIR ENGINEERING  
2308 PAHOHUNI DR  
HONOLULU, HI 96819

HI SHWS U003221573  
HI LLUST N/A  
HI LLUST  
HI ENG CONTROLS  
HI INST CONTROL

SHWS:  
Organization: Not reported  
Supplemental Location: Not reported  
Island: Oahu  
Environmental Interest: Hawaii Select Investments - 2308 Pahounui Drive  
HID Number: Not reported  
Facility Registry Identifier: HEER  
Lead Agency: HEER  
Program: Fast Track  
Project Manager: Kelton Otsuka  
Hazard Priority: NFA  
Potential Hazards And Controls: Hazard Managed With Controls  
Organization: Not reported  
Island: Oahu  
Supplemental Location Text: Not reported  
SDAR Environmental Interest Name: Hawaii Select Investments - 2308 Pahounui Drive  
HID Number: Not reported  
Facility Registry Identifier: HEER  
Lead Agency: HEER  
Program Name: Fast Track  
Potential Hazard And Controls: Hazard Managed With Controls  
Priority: NFA  
Assessment: Response Necessary  
Response: Response Complete  
Nature of Contamination: Found: Lead and RRO in soil and lead in groundwater.  
Use Restrictions: Not reported  
Engineering Control: Controls Required to Manage Contamination  
Description of Restrictions: Engineering Control Required  
Institutional Control: Not reported  
Within Designated Areawide Contamination: Government - Hawaii Dept. of Health Letter Issued  
Site Closure Type: No Further Action Letter - Restricted Use  
Document Number: 08272009  
Document Subject: 2009-346-KO  
Project Manager: No Further Action with Institutional Controls Determination at Hawaii  
Contact Information: Select Investments 2308 Pāho Honolulu, HI 96814 (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

LUST:  
Facility ID: 9-100170  
Facility Status: Site Cleanup Completed (NFA)  
Facility Status Date: 01/11/1985  
Release ID: 95022  
Project Officer: Eric Saabeyama  
UST:  
Facility ID: 9-100170  
Owner: AMELCO CORPORATION  
Owner Address: 2308 PAHOHUNI DR Honolulu, 96819 96819  
Latitude: 21.3249

Map ID  
Direction  
Distance  
Elevation



Map ID  
Direction  
Distance  
Elevation



Site  
EDR ID Number  
EPA ID Number  
Database(s)

Site  
EDR ID Number  
EPA ID Number  
Database(s)

**AIR ENGINEERING (Continued)**

Longitude: -157.892  
Horizontal Reference Datum: NAD83

Tank ID: R-1  
Date Installed: 03/25/1985  
**Tank Status: Permanently Out of Use**  
Date Closed: 10/26/1993  
Tank Capacity: 6000  
Substance: Gasoline

Tank ID: R-A  
Date Installed: 12/18/1984  
**Tank Status: Permanently Out of Use**  
Date Closed: Not reported  
Tank Capacity: 4000  
Substance: Gasoline

Tank ID: R-B  
Date Installed: 08/20/1966  
**Tank Status: Permanently Out of Use**  
Date Closed: 12/31/1984  
Tank Capacity: 2000  
Substance: Not Listed

**ENG CONTROLS:**

Supplemental Location Text: Not reported  
Zip Suffix: Not reported  
Island: Oahu  
Potential Hazards And Controls: Hazard Managed With Controls  
Engineering Control: Engineering Control Required

**INST CONTROL:**

Potential hazards and controls: Hazard Managed With Controls  
Supplemental Location: Not reported  
Zip Suffix: Not reported  
Island: Oahu  
Institutional Control: Government - Hawaii Dept. of Health Letter issued

**I37**  
**NE**  
1/2-1  
0.729 mi.  
3847 ft.

Relative:  
Higher  
Actual:  
3 ft.

**YOUNG BROTHERS, LTD. PIERS 39, 40**  
1331 N NIMITZ HWY  
HONOLULU, HI 96801

Site 1 of 2 in cluster 1

SHWS:  
Organization: Not reported  
Supplemental Location: Honolulu Harbor Pier 39/40 at Waialakamilo Rd  
Island: Oahu  
Environmental Interest: Young Brothers, Ltd. Piers 39, 40  
HID Number: Not reported  
Facility Registry/Identifier: 110013774521  
Lead Agency: HEER  
Program: State  
Project/Manager: Unassigned  
Hazard Priority: Low

**HI SHWS S108005312**  
**HI SPILLS N/A**

**YOUNG BROTHERS, LTD. PIERS 39, 40 (Continued)**

Potential Hazards And Controls: Hazard Undetermined  
Organization: Not reported

Island: Oahu  
Supplemental Location Text: Honolulu Harbor Pier 39/40 at Waialakamilo Rd  
SDAR Environmental Interest Name: Young Brothers, Ltd. Piers 39, 40  
HID Number: Not reported  
Facility Registry/Identifier: 110013774521  
Lead Agency: HEER  
Program Name: State  
Potential Hazard And Controls: Hazard Undetermined  
Priority: Low

Assessment: Assessment Ongoing  
Response: Not reported  
Nature of Contamination: Not reported  
Nature of Residual Contamination: Not reported  
Use Restrictions: Undetermined  
Engineering Control: Not reported  
Description of Restrictions: Not reported  
Institutional Control: Not reported  
Within Designated Area/wide Contamination: Honolulu Harbor Kapaalama Unit  
Site Closure Type: Not reported  
Document Date: Not reported  
Document Number: Not reported  
Document Subject: Not reported  
Project Manager: Unassigned  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**HI SPILLS:**

Island: Oahu  
Supplemental Loc. Text: Honolulu Harbor Pier 39/40 at Waialakamilo Rd  
Case Number: 20091123-0546  
HID Number: Not reported  
Facility Registry/Id: 110013774521  
Lead and Program: HEER EP&R  
ER: None  
Units: Security Breach Piers 39 and 40 NRC 924076  
Substances: None  
Less Or Greater Than: Not reported  
Numerical Quantity: 0  
Units: Not reported  
Activity Type: Response  
Activity Lead: Liz Galvez  
Assignment End Date: Not reported  
Result: Not reported  
File Under: Young Brothers, Ltd.

Island: Oahu  
Supplemental Loc. Text: Honolulu Harbor Pier 39/40 at Waialakamilo Rd  
Case Number: 20100927-1210  
HID Number: Not reported  
Facility Registry/Id: 110013774521  
Lead and Program: HEER EP&R  
ER: None  
Units: YOUNG BROTHERS HYDRAULIC OIL RELEASE  
Substances: Hydraulic Oil  
Less Or Greater Than: >  
Numerical Quantity: 100

**YOUNG BROTHERS, LTD. PIERS 39, 40 (Continued)** S108009312

Assignment End Date: 2012-08-20 00:00:00  
 Result: Not reported  
 File Under: Young Brothers, Ltd.

[Click this hyperlink](#) while viewing on your computer to access 4 additional HI SPILLS records(s) in the EDR Site Report.

**YOUNG BROTHERS, LTD. PIERS 39, 40 (Continued)** S108009312

Galbons  
 Response  
 Curtis Martin  
 Assignment End Date: 2010-09-27 00:00:00  
 Result: SOSC NFA  
 File Under: Young Brothers, Ltd.

Island: Oahu  
 Supplemental Loc. Text: 20110411-0726  
 Case Number: Not reported  
 HID Number: Not reported  
 Facility Registry Id: HEER EP&R  
 Lead and Program: HEER EP&R  
 ER: None

Island: Oahu  
 Supplemental Loc. Text: Honolulu Harbor Pier 39/40 at Waiakamilo Rd  
 Case Number: 20111102-1645  
 HID Number: Not reported  
 Facility Registry Id: 110013774521  
 Lead and Program: HEER EP&R  
 ER: None

Units: Not reported  
 Substances: Not reported  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Liz Galvez  
 Assignment End Date: Not reported  
 Result: Not reported  
 File Under: Not reported

Units: Young Brothers medical waste spill  
 Substances: medical waste  
 Less Or Greater Than: Not reported  
 Numerical Quantity: 1  
 Units: Gallons  
 Activity Type: Response  
 Activity Lead: TC  
 Assignment End Date: Not reported  
 Result: SOSC NFA  
 File Under: Young Brothers, Ltd.

Island: Oahu  
 Supplemental Loc. Text: Honolulu Harbor Pier 39/40 at Waiakamilo Rd  
 Case Number: 20120819-2139  
 HID Number: Not reported  
 Facility Registry Id: 110013774521  
 Lead and Program: HEER EP&R  
 ER: None

Island: Oahu  
 Supplemental Loc. Text: Honolulu Harbor Pier 39/40 at Waiakamilo Rd  
 Case Number: 20120819-2139  
 HID Number: Not reported  
 Facility Registry Id: 110013774521  
 Lead and Program: HEER EP&R  
 ER: None

Substances: Security Breach at 1331 N. Nimitz Hwy.  
 Less Or Greater Than: Security Breach  
 Numerical Quantity: 0  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Adam Teekell

Substances: Security Breach at 1331 N. Nimitz Hwy.  
 Less Or Greater Than: Security Breach  
 Numerical Quantity: 0  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Adam Teekell

Relative: Higher  
 Actual: 10 ft.

Relative: Higher  
 Actual: 10 ft.

J38  
 North  
 1/2-1  
 0.743 mi.  
 3921 ft.  
 Site 1 of 2 in cluster J

J38  
 North  
 1/2-1  
 0.743 mi.  
 3921 ft.  
 Site 1 of 2 in cluster J

Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 Environmental Interest: 1950 Homerule Street  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Eric Sadoyama  
 Hazard Priority: Low  
 Potential Hazards And Controls: Hazard Present  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: 1950 Homerule Street  
 SDR Environmental Interest Name: Not reported  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Lead Agency: HEER  
 Program Name: State  
 Potential Hazard And Controls: Hazard Present  
 Priority: Low  
 Assessment: Assessment Ongoing  
 Response: Not reported  
 Nature of Contamination: Found: PAHs  
 Nature of Residual Contamination: Not reported  
 Use Restrictions: Controls Required to Manage Contamination  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: Not reported  
 Site Closure Type: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Eric Sadoyama  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:  
 Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 20120817-1022  
 HID Number: Not reported  
 Facility Registry Id: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

1305 HART STREET  
1305 HART ST  
HONOLULU, HI 96814

Site 2 of 2 in cluster 1

SHWS:  
Organization:  
Supplemental Location:  
Island:  
Environmental Interest:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program:  
Project Manager:  
Hazard Priority:  
Potential Hazards And Controls:  
Organization:  
Island:  
Supplemental Location Text:  
SDAR Environmental Interest Name:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program Name:  
Potential Hazard And Controls:  
Priority:  
Assessment:  
Response:  
Nature of Contamination:  
Use Restrictions:  
Engineering Control:  
Description of Restrictions:  
Institutional Control:  
Within Designated Area-wide Contamination:  
Site Closure Type:  
Document Date:  
Document Number:  
Document Subject:  
Project Manager:  
Contact Information:

Not reported  
1305 Hart St, 1301 and 1321 also?  
Oahu  
1305 Hart Street  
Not reported  
Not reported  
HEER  
State  
Mark Suterfield  
NFA  
Hazard Managed With Controls  
Not reported  
Oahu  
1305 Hart St, 1301 and 1321 also?  
Not reported  
1305 Hart Street  
Not reported  
HEER  
State  
NFA  
Hazard Managed With Controls  
Not reported  
Oahu  
1305 Hart St, 1301 and 1321 also?  
Not reported  
Not reported  
HEER  
State  
NFA  
Hazard Managed With Controls  
Assessment  
Response Necessary  
Response Complete  
Not reported  
Lead in soil  
Controls Required to Manage Contamination  
Not reported  
Not reported  
Government - Hawaii Dept. of Health Letter Issued  
No Further Action Letter - Restricted Use  
12/16/2004  
2004-539-MS  
NFA 1305 Hart St Lead in surface below Tier I based on 95% UCL  
Mark Suterfield  
(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

1950 HOMERULE STREET (Continued)

HEER EP&R  
None  
1950 Homerule  
Polycyclic Aromatic Hydrocarbons  
Not reported  
0  
Not reported  
Response  
TC  
Not reported  
Assignment End Date:  
SOSC NFA  
Not reported  
File Under:

SHWS:  
Organization:  
Supplemental Location:  
Island:  
Environmental Interest:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program:  
Project Manager:  
Hazard Priority:  
Potential Hazards And Controls:  
Organization:  
Island:  
Supplemental Location Text:  
SDAR Environmental Interest Name:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program Name:  
Potential Hazard And Controls:  
Priority:  
Assessment:  
Response:  
Nature of Contamination:  
Use Restrictions:  
Engineering Control:  
Description of Restrictions:  
Institutional Control:  
Within Designated Area-wide Contamination:  
Site Closure Type:  
Document Date:  
Document Number:  
Document Subject:  
Project Manager:  
Contact Information:

Not reported  
Not reported  
Oahu  
2250 Pahouuni Drive  
Not reported  
Not reported  
HEER  
State  
Cal Miyahara  
Medium  
Hazard Present  
Hazard Present  
Oahu  
Not reported  
2250 Pahouuni Drive  
Not reported  
HEER  
State  
Hazard Present  
Medium  
Assessment Ongoing  
Not reported  
Found: Arsenic, barium, cadmium, and lead in soil above HDOH Interim  
Final EAL, Petroleum odor in soil and groundwater in the northern  
portion of the site near Stoddard UST.  
Not reported  
Controls Required to Manage Contamination  
Not reported  
Not reported  
Not reported  
Honolulu Harbor Sand Island Unit  
Not reported  
Not reported  
Not reported  
Cal Miyahara  
(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

2250 PAHOUNI DRIVE  
2250 PAHOUNI DR  
HONOLULU, HI

Site 1 of 2 in cluster K

SHWS:  
Organization:  
Supplemental Location:  
Island:  
Environmental Interest:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program:  
Project Manager:  
Hazard Priority:  
Potential Hazards And Controls:  
Organization:  
Island:  
Supplemental Location Text:  
SDAR Environmental Interest Name:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program Name:  
Potential Hazard And Controls:  
Priority:  
Assessment:  
Response:  
Nature of Contamination:  
Use Restrictions:  
Engineering Control:  
Description of Restrictions:  
Institutional Control:  
Within Designated Area-wide Contamination:  
Site Closure Type:  
Document Date:  
Document Number:  
Document Subject:  
Project Manager:  
Contact Information:

Not reported  
Not reported  
Oahu  
2250 Pahouuni Drive  
Not reported  
Not reported  
HEER  
State  
Cal Miyahara  
Medium  
Hazard Present  
Hazard Present  
Oahu  
Not reported  
2250 Pahouuni Drive  
Not reported  
HEER  
State  
Hazard Present  
Medium  
Assessment Ongoing  
Not reported  
Found: Arsenic, barium, cadmium, and lead in soil above HDOH Interim  
Final EAL, Petroleum odor in soil and groundwater in the northern  
portion of the site near Stoddard UST.  
Not reported  
Controls Required to Manage Contamination  
Not reported  
Not reported  
Not reported  
Honolulu Harbor Sand Island Unit  
Not reported  
Not reported  
Not reported  
Cal Miyahara  
(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

1950 HOMERULE STREET (Continued)

HEER EP&R  
None  
1950 Homerule  
Polycyclic Aromatic Hydrocarbons  
Not reported  
0  
Not reported  
Response  
TC  
Not reported  
Assignment End Date:  
SOSC NFA  
Not reported  
File Under:

SHWS:  
Organization:  
Supplemental Location:  
Island:  
Environmental Interest:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program:  
Project Manager:  
Hazard Priority:  
Potential Hazards And Controls:  
Organization:  
Island:  
Supplemental Location Text:  
SDAR Environmental Interest Name:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program Name:  
Potential Hazard And Controls:  
Priority:  
Assessment:  
Response:  
Nature of Contamination:  
Use Restrictions:  
Engineering Control:  
Description of Restrictions:  
Institutional Control:  
Within Designated Area-wide Contamination:  
Site Closure Type:  
Document Date:  
Document Number:  
Document Subject:  
Project Manager:  
Contact Information:

Not reported  
Not reported  
Oahu  
2250 Pahouuni Drive  
Not reported  
Not reported  
HEER  
State  
Cal Miyahara  
Medium  
Hazard Present  
Hazard Present  
Oahu  
Not reported  
2250 Pahouuni Drive  
Not reported  
HEER  
State  
Hazard Present  
Medium  
Assessment Ongoing  
Not reported  
Found: Arsenic, barium, cadmium, and lead in soil above HDOH Interim  
Final EAL, Petroleum odor in soil and groundwater in the northern  
portion of the site near Stoddard UST.  
Not reported  
Controls Required to Manage Contamination  
Not reported  
Not reported  
Not reported  
Honolulu Harbor Sand Island Unit  
Not reported  
Not reported  
Not reported  
Cal Miyahara  
(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

1305 HART STREET  
1305 HART ST  
HONOLULU, HI 96814

Site 2 of 2 in cluster 1

SHWS:  
Organization:  
Supplemental Location:  
Island:  
Environmental Interest:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program:  
Project Manager:  
Hazard Priority:  
Potential Hazards And Controls:  
Organization:  
Island:  
Supplemental Location Text:  
SDAR Environmental Interest Name:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program Name:  
Potential Hazard And Controls:  
Priority:  
Assessment:  
Response:  
Nature of Contamination:  
Use Restrictions:  
Engineering Control:  
Description of Restrictions:  
Institutional Control:  
Within Designated Area-wide Contamination:  
Site Closure Type:  
Document Date:  
Document Number:  
Document Subject:  
Project Manager:  
Contact Information:

Not reported  
1305 Hart St, 1301 and 1321 also?  
Oahu  
1305 Hart Street  
Not reported  
Not reported  
HEER  
State  
Mark Suterfield  
NFA  
Hazard Managed With Controls  
Not reported  
Oahu  
1305 Hart St, 1301 and 1321 also?  
Not reported  
1305 Hart Street  
Not reported  
HEER  
State  
NFA  
Hazard Managed With Controls  
Assessment  
Response Necessary  
Response Complete  
Not reported  
Lead in soil  
Controls Required to Manage Contamination  
Not reported  
Not reported  
Government - Hawaii Dept. of Health Letter Issued  
No Further Action Letter - Restricted Use  
12/16/2004  
2004-539-MS  
NFA 1305 Hart St Lead in surface below Tier I based on 95% UCL  
Mark Suterfield  
(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

2250 PAHOUNI DRIVE  
2250 PAHOUNI DR  
HONOLULU, HI

Site 1 of 2 in cluster K

SHWS:  
Organization:  
Supplemental Location:  
Island:  
Environmental Interest:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program:  
Project Manager:  
Hazard Priority:  
Potential Hazards And Controls:  
Organization:  
Island:  
Supplemental Location Text:  
SDAR Environmental Interest Name:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program Name:  
Potential Hazard And Controls:  
Priority:  
Assessment:  
Response:  
Nature of Contamination:  
Use Restrictions:  
Engineering Control:  
Description of Restrictions:  
Institutional Control:  
Within Designated Area-wide Contamination:  
Site Closure Type:  
Document Date:  
Document Number:  
Document Subject:  
Project Manager:  
Contact Information:

Not reported  
Not reported  
Oahu  
2250 Pahouuni Drive  
Not reported  
Not reported  
HEER  
State  
Cal Miyahara  
Medium  
Hazard Present  
Hazard Present  
Oahu  
Not reported  
2250 Pahouuni Drive  
Not reported  
HEER  
State  
Hazard Present  
Medium  
Assessment Ongoing  
Not reported  
Found: Arsenic, barium, cadmium, and lead in soil above HDOH Interim  
Final EAL, Petroleum odor in soil and groundwater in the northern  
portion of the site near Stoddard UST.  
Not reported  
Controls Required to Manage Contamination  
Not reported  
Not reported  
Not reported  
Honolulu Harbor Sand Island Unit  
Not reported  
Not reported  
Not reported  
Cal Miyahara  
(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

1950 HOMERULE STREET (Continued)

HEER EP&R  
None  
1950 Homerule  
Polycyclic Aromatic Hydrocarbons  
Not reported  
0  
Not reported  
Response  
TC  
Not reported  
Assignment End Date:  
SOSC NFA  
Not reported  
File Under:

SHWS:  
Organization:  
Supplemental Location:  
Island:  
Environmental Interest:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program:  
Project Manager:  
Hazard Priority:  
Potential Hazards And Controls:  
Organization:  
Island:  
Supplemental Location Text:  
SDAR Environmental Interest Name:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program Name:  
Potential Hazard And Controls:  
Priority:  
Assessment:  
Response:  
Nature of Contamination:  
Use Restrictions:  
Engineering Control:  
Description of Restrictions:  
Institutional Control:  
Within Designated Area-wide Contamination:  
Site Closure Type:  
Document Date:  
Document Number:  
Document Subject:  
Project Manager:  
Contact Information:

Not reported  
Not reported  
Oahu  
2250 Pahouuni Drive  
Not reported  
Not reported  
HEER  
State  
Cal Miyahara  
Medium  
Hazard Present  
Hazard Present  
Oahu  
Not reported  
2250 Pahouuni Drive  
Not reported  
HEER  
State  
Hazard Present  
Medium  
Assessment Ongoing  
Not reported  
Found: Arsenic, barium, cadmium, and lead in soil above HDOH Interim  
Final EAL, Petroleum odor in soil and groundwater in the northern  
portion of the site near Stoddard UST.  
Not reported  
Controls Required to Manage Contamination  
Not reported  
Not reported  
Not reported  
Honolulu Harbor Sand Island Unit  
Not reported  
Not reported  
Not reported  
Cal Miyahara  
(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

**1305 HART STREET (Continued)** S1066815169 S1066815169 1006619073

Assignment End Date: 2005-10-28 00:00:00  
 Result: Refer to ISST  
 File Under: State of Hawaii, Department of Hawaiian Home Lands

INST CONTROL:  
 Potential hazards and controls: Hazard Managed With Controls  
 Supplemental Location: 1305 Hart St, 1301 and 1321 also?  
 Zip Suffix: Not reported  
 Island: Oahu  
 Institutional Control: Government - Hawaii Dept. of Health Letter Issued

**41**  
**NINE**  
 1/2-1  
 0.788 mi.  
 4163 ft.

**PACIFIC POULTRY**  
**1604 KANAKANUI ST**  
**HONOLULU, HI 96819**

HI SHWS 1006619073  
 HI SPILLS N/A

SHWS:  
 Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 Environmental Interest: Pacific Poultry  
 HID Number: Not reported  
 Facility Registry Identifier: 110013768397  
 Lead Agency: HEER  
 State: State  
 Program: Mark Sutterfield  
 Hazard Priority: NFA  
 Potential Hazards And Controls: No Hazard  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: SDAAR Environmental Interest Name:  
 HID Number: Not reported  
 Facility Registry Identifier: 110013768397  
 Lead Agency: HEER  
 State: State  
 Potential Hazard And Controls: No Hazard  
 Priority: NFA  
 Response: Response Necessary  
 Nature of Contamination: Response Complete  
 Use Restrictions: Petroleum contaminated soil  
 Description of Restrictions: No Hazard Present for Unrestricted Residential Use  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: Not reported  
 Site Closure Type: Letter of Completion - Unrestricted Residential Use  
 Document Date: 12/06/2004  
 Document Number: 2004-519-MS  
 Project Manager: NFA for diesel release from UST.  
 Contact Information: Mark Sutterfield  
 (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Relative: Higher  
 Actual: 13 ft.

HI SPILLS:  
 Island: Oahu

**PACIFIC POULTRY (Continued)** 1006619073

Supplemental Loc. Text: Not reported  
 Case Number: 200102020955  
 HID Number: Not reported  
 Facility Registry Id: 110013768397  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 Units: Pacific Poultry tank closure  
 Substances: Diesel Fuel  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Bill Perry  
 Assignment End Date: Not reported  
 Result: Not reported  
 File Under: Pacific Poultry Company, Ltd.

**YUE-FUNG KWAN CONSTRUCTION SITE**  
**2004-2008 REPUBLICAN ST**  
**HONOLULU, HI 96819**

**J42**  
**North**  
 1/2-1  
 0.801 mi.  
 4228 ft.

**YUE-FUNG KWAN CONSTRUCTION SITE**  
**2004-2008 REPUBLICAN ST**  
**HONOLULU, HI 96819**

HI SHWS S110061865  
 HI SPILLS N/A

Relative: Higher  
 Actual: 10 ft.

HI SPILLS:  
 Island: Oahu

**YUE-FUNG KWAN CONSTRUCTION SITE (Continued)**  
 Honolulu HI 96813  
 Kelson Otsuka  
 (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**DOMESTIC COMMERCIAL FISHING VILLAGE (Continued)**  
 Limit Further Land Use - Site is restricted to industrial use only  
 Government - Hawaii Dept. of Health Letter Issued  
 Honolulu Harbor Iwiwi Unit

**HI SPILLS:**  
 Island: Oahu  
 Supplemental Loc. Text: 822 Kawaiahae Street  
 Case Number: 20080302-1104  
 HID Number: Not reported  
 Facility Registry Id: Not reported  
 Lead and Program: HEER EP&R  
 ER: Site Visit  
 Units: 2004 Republic Street UST  
 Substances: Waste Oil  
 Less Or Greater Than: Not reported  
 Numerical Quantity: 5  
 Gallons  
 Activity Type: Response  
 Activity Lead: Paul Chong  
 Assignment End Date: 2008-03-11 00:00:00  
 Result: Refer to SDAR  
 File Under: Yue-Fung Kwan

**HI SPILLS:**  
 Island: Oahu  
 Supplemental Loc. Text: Honolulu Harbor Pier 36-38  
 Case Number: 20010117-1023  
 HID Number: Not reported  
 Facility Registry Id: 110013782344  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 Units: Domestic Commercial Fishing Village  
 Substances: Not reported  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Activity Type: Response  
 Activity Lead: Mike Cripps  
 Assignment End Date: Not reported  
 Result: SOSC NFA  
 File Under: State of Hawaii, Department of Transportation, Harbors Division

**DOMESTIC COMMERCIAL FISHING VILLAGE**  
 1133 N NIMITZ HWY  
 HONOLULU, HI 96817  
 Site 1 of 3 in cluster L

**DOMESTIC COMMERCIAL FISHING VILLAGE**  
 HI SHWS S111677154  
 HI SPILLS N/A  
 HI INST CONTROL

**SHWS:**  
 Organization: Not reported  
 Supplemental Location: Honolulu Harbor Pier 36-38  
 Island: Oahu  
 Environmental Interest: Domestic Commercial Fishing Village  
 Facility Registry Identifier: 110013782344  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Steve Mow  
 Hazard Priority: Low  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Honolulu Harbor Pier 36-38  
 SDAR Environmental Interest Name: Domestic Commercial Fishing Village  
 HID Number: Not reported  
 Facility Registry Identifier: 110013782344  
 Program Name: HEER  
 Potential Hazard And Controls: Hazard Managed With Controls  
 Priority: Low  
 Assessment: Response Necessary  
 Response: Response Ongoing  
 Nature of Contamination: Found: Methane in soil gas  
 Use Restrictions: Not reported  
 Engineering Control: Controls Required to Manage Contamination  
 Engineering Control Required

**SHWS:**  
 Organization: Not reported  
 Supplemental Loc. Text: Honolulu Harbor Pier 36-38  
 Case Number: 20010201-1400  
 HID Number: Not reported  
 Facility Registry Id: 110013782344  
 Lead and Program: HEER EP&R  
 ER: Site Visit  
 Units: Domestic Commercial Fishing Village Oil Release- Construction Excavation - Line 6  
 Less Or Greater Than: Light brown oil - Vegetable - Cooking oil ?  
 Numerical Quantity: < 1  
 Gallons  
 Activity Type: Response  
 Activity Lead: Bill Perry  
 Assignment End Date: Not reported  
 Result: SOSC NFA  
 File Under: State of Hawaii, Department of Transportation, Harbors Division

Map ID  
Direction  
Distance  
Elevation



Site EDR ID Number EPA ID Number Database(s)

DOMESTIC COMMERCIAL FISHING VILLAGE (Continued)

Numerical Quantity: Not reported  
Units: Not reported  
Activity Type: Response  
Activity Lead: Mike Cripps  
Assignment End Date: Not reported  
Result: SOSC NFA  
File Under: State of Hawaii, Department of Transportation, Harbors Division

Island: Oahu  
Supplemental Loc. Text: Honolulu Harbor Pier 36-38  
Case Number: 20030905-1153  
HID Number: Not reported  
Facility Registry Id: 110013782344  
Lead and Program: HEER EP&R  
ER: Not reported  
Units: Pier 38 Fishing Village, parcel 2  
Substances: Methane/combustible Gas  
Less Or Greater Than: Not reported  
Numerical Quantity: Not reported  
Units: Not reported  
Activity Type: Response  
Activity Lead: Ed Gomes  
Assignment End Date: Not reported  
Result: Not reported  
File Under: State of Hawaii, Department of Transportation, Harbors Division

Island: Oahu  
Supplemental Loc. Text: Honolulu Harbor Pier 36-38  
Case Number: 19990702-0845  
HID Number: Not reported  
Facility Registry Id: 110013782344  
Lead and Program: HEER EP&R  
ER: Referred  
Units: Pier 37 Soil Contamination  
Substances: Petroleum Oil  
Less Or Greater Than: Not reported  
Numerical Quantity: Not reported  
Units: Not reported  
Activity Type: Response  
Activity Lead: Terry Corpus  
Assignment End Date: Not reported  
Result: SOSC NFA  
File Under: State of Hawaii, Department of Transportation, Harbors Division

[Click this hyperlink](#) while viewing on your computer to access additional HI SPILLS: detail in the EDR Site Report.

ENG CONTROLS:  
Supplemental Location Text: Honolulu Harbor Pier 36-38  
Zip Suffix: Not reported  
Island: Oahu  
Potential Hazards And Controls: Hazard Managed With Controls  
Engineering Control: Engineering Control Required

INST CONTROL:  
Potential hazards and controls: Hazard Managed With Controls

Map ID  
Direction  
Distance  
Elevation



Site EDR ID Number EPA ID Number Database(s)

DOMESTIC COMMERCIAL FISHING VILLAGE (Continued)

Supplemental Location: Honolulu Harbor Pier 36-38  
Zip Suffix: Not reported  
Island: Oahu  
Institutional Control: Government - Hawaii Dept. of Health Letter issued

44  
North  
1/2-1  
0.804 mi.  
4244 ft.  
Relative:  
Higher  
Actual:  
3 ft.

SHWS:  
Organization: Not reported  
Supplemental Location: Not reported  
Island: Oahu  
Environmental Interest: Hawaiian Bitumuls Paving & Precast Company-Sand Island Access Road  
HID Number: HD006926919  
Facility Registry Identifier: 110005284101  
Lead Agency: HEER  
Program: State  
Project Manager: Laura Young  
Hazard Priority: NFA  
Potential Hazards And Controls: Hazard Managed With Controls  
Organization: Not reported  
Island: Oahu

Supplemental Location Text: Not reported  
SDAR Environmental Interest Name: Hawaiian Bitumuls Paving & Precast Company-Sand Island Access Road  
HID Number: HD006926919  
Facility Registry Identifier: 110005284101  
Lead Agency: HEER  
Program Name: State  
Potential Hazard And Controls: Hazard Managed With Controls  
Priority: NFA  
Assessment: Response Necessary  
Response: Response Complete  
Nature of Contamination: Found: Petroleum in soil and groundwater.  
Nature of Residual Contamination: Petroleum in soil and groundwater.  
Use Restrictions: Controls Required to Manage Contamination  
Engineering Control: Not reported  
Description of Restrictions: Prohibit Excavation  
Institutional Control: Government - Hawaii Dept. of Health Letter Issued  
Site Closure Type: No Further Action Letter - Restricted Use  
Document Date: 01/28/2000  
Document Number: 2000-044-MN  
Document Subject: NFA letter for 248 Sand Island Access Rd  
Project Manager: Laura Young  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

LUST:  
Facility ID: 9-1-00764  
Facility Status: Site Cleanup Completed with EHMP  
Facility Status Date: 01/28/2000  
Release ID: 900050  
Project Officer: To HEER

U001235221

HAWAIIAN BITUMULS & PAVING (Continued)

**UST:**  
 Facility ID: 9-100764  
 Owner: HAWAIIAN BITUMULS & PAVING  
 Owner Address: P.O. BOX 2240  
 Owner City/ST/Zip: Honolulu, 96819 96819  
 Latitude: 21.3275  
 Longitude: -157.89  
 Horizontal Reference Datum: NAD83  
 Tank ID: R-01  
 Date Installed: Not reported  
**Tank Status:** Permanently Out of Use  
 Date Closed: 01/28/2000  
 Tank Capacity: 10000  
 Substance: Diesel  
 Tank ID: R-02  
 Date Installed: Not reported  
**Tank Status:** Permanently Out of Use  
 Date Closed: 01/28/2000  
 Tank Capacity: 10000  
 Substance: Gasoline  
 Tank ID: R-03  
 Date Installed: Not reported  
**Tank Status:** Permanently Out of Use  
 Date Closed: 01/28/2000  
 Tank Capacity: 10000  
 Substance: Not Listed  
 Tank ID: R-04  
 Date Installed: Not reported  
**Tank Status:** Permanently Out of Use  
 Date Closed: 01/28/2000  
 Tank Capacity: 1000  
 Substance: Other  
 Tank ID: R-5  
 Date Installed: Not reported  
**Tank Status:** Permanently Out of Use  
 Date Closed: 01/28/2000  
 Tank Capacity: 800  
 Substance: Not Listed

U001235221

HAWAIIAN BITUMULS & PAVING (Continued)

**AIRS:**  
 Facility ID: 0540-01-C  
 Island: Oahu  
 Mailing Address: P.O. Box 579  
 Local: Not reported  
 Mailing City/ST/Zip: Honolulu, HI 96809  
 Contact Name: John Romanowski  
 Contact Title: Vice President  
 Description: 300 TPH Drum-Mix Asphalt Plant with 1,322 bhp Cummins QST30-G5-NR2 Diesel Engine Generator. The 500 TPH asphalt plant encompasses the following equipment and associated appurtenances: One (1) CMI Drum-Mixer model PTD-300 with ESH100 Burner; One (1) 1,322 bhp Cummins QST30-G5 diesel engine generator; One (1) Rock-Aire Baghouse servicing the Drum-Mixer; Two (2) CMI Hot Oil Heaters model CE1-2000; One (1) CMI 20-Ton Capacity Portable Recycle Bin, model PRB-1201; One (1) 300 TPH Reclaimed Asphalt Plant (RAP) roller crusher connected to the portable recycling bin; 4' x 10' Scalping Screen; Aggregate Bins; Asphalt Storage Silo; and Various conveyor belts.

U001235221

HAWAIIAN BITUMULS & PAVING (Continued)

**SHWS:**  
 Organization: Not reported  
 Supplemental Location: Honolulu Harbor Pier 36  
 Island: Oahu  
 Environmental Interest: Chevron Kapalama Northeast Parcel  
 HID Number: Not reported  
 Lead Agency: HEER  
 Project Manager: Jordan Nakayama  
 Hazard Priority: Medium  
 Potential Hazards And Controls: Hazard Present  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Honolulu Harbor Pier 36  
 SDR Environmental Interest Name: Chevron Kapalama Northeast Parcel  
 HID Number: Not reported  
 Facility Registry Identifier: 110013779731  
 Lead Agency: HEER  
 Program Name: State  
 Potential Hazard And Controls: Hazard Present  
 Priority: Medium  
 Assessment: Response Necessary  
 Response: Response Ongoing  
 Nature of Contamination: Found: Subsurface petroleum contamination in soil and groundwater.  
 Nature of Residual Contamination: Not reported  
 Use Restrictions: Controls Required to Manage Contamination  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: Honolulu Harbor Wilei Unit

L45

ENE 105 N NIMITZ HWY HONOLULU, HI 96817

Site 2 of 3 in cluster L

SHWS:

Organization: Not reported  
 Supplemental Location: Honolulu Harbor Pier 36  
 Island: Oahu  
 Environmental Interest: Chevron Kapalama Northeast Parcel  
 HID Number: Not reported  
 Lead Agency: HEER  
 Project Manager: Jordan Nakayama  
 Hazard Priority: Medium  
 Potential Hazards And Controls: Hazard Present  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Honolulu Harbor Pier 36  
 SDR Environmental Interest Name: Chevron Kapalama Northeast Parcel  
 HID Number: Not reported  
 Facility Registry Identifier: 110013779731  
 Lead Agency: HEER  
 Program Name: State  
 Potential Hazard And Controls: Hazard Present  
 Priority: Medium  
 Assessment: Response Necessary  
 Response: Response Ongoing  
 Nature of Contamination: Found: Subsurface petroleum contamination in soil and groundwater.  
 Nature of Residual Contamination: Not reported  
 Use Restrictions: Controls Required to Manage Contamination  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: Honolulu Harbor Wilei Unit

0.807 mi.

4259 ft.

Relative: Higher

Actual: 3 ft.

HI SHWS S10600763

HI INST CONTROL N/A



CHEVRON KAPALAMA TERMINAL (Continued)

\$108008763

Not reported

Organization:  
Island:  
Supplemental Location Text:  
SDAR Environmental Interest Name:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program Name:  
Potential Hazard And Controls:  
Priority:  
Assessment:  
Response:  
Nature of Contamination:  
Nature of Residual Contamination:

Not reported  
Oahu  
Honolulu Harbor Pier 37  
Chevron Kapalama Southwest Parcel  
Not reported  
110013779713  
HEER  
State  
Hazard Managed With Controls  
NFA  
Response Necessary  
Response Complete  
Found: Petroleum in soil and groundwater  
Most of nonhazardous oily pollution was cleaned up and remaining  
contaminants do not pose a threat to human health or the environment  
during the proposed future use of the property - NFA Itr Chevron2-Lau  
dated August 26, 1993  
Controls Required to Manage Contamination  
Not reported  
Limit Further Land Use - Site is restricted to industrial use only  
Government - Hawaii Dept. of Health Letter Issued  
Honolulu Harbor Iwiwi Unit  
No Further Action Letter - Restricted Use  
08/26/1993  
014-  
Chevron Oil Company's Former Kapalama Fuel Terminal, Southwest Parcel,  
Pier 37, Honolulu  
Jordan Nakayama  
(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Not reported

Organization:  
Island:  
Supplemental Location Text:  
SDAR Environmental Interest Name:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program Name:  
Potential Hazard And Controls:  
Priority:  
Assessment:  
Response:  
Nature of Contamination:  
Nature of Residual Contamination:

Not reported  
Oahu  
Honolulu Harbor Pier 37  
Chevron Kapalama Southwest Parcel  
Not reported  
110013779713  
HEER  
State  
Hazard Present  
Medium  
Response Necessary  
Response Ongoing  
Found: Subsurface petroleum contamination in soil and groundwater.  
Controls Required to Manage Contamination  
Not reported

Organization:  
Island:  
Supplemental Location Text:  
SDAR Environmental Interest Name:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program Name:  
Potential Hazard And Controls:  
Priority:  
Assessment:  
Response:  
Nature of Contamination:  
Nature of Residual Contamination:

Not reported  
Oahu  
Honolulu Harbor Pier 37  
Chevron Kapalama Southwest Parcel  
Not reported  
110013779713  
HEER  
State  
Hazard Present  
Medium  
Response Necessary  
Response Ongoing  
Found: Subsurface petroleum contamination in soil and groundwater.  
Controls Required to Manage Contamination  
Not reported

Organization:  
Island:  
Supplemental Location Text:  
SDAR Environmental Interest Name:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program Name:  
Potential Hazard And Controls:  
Priority:  
Assessment:  
Response:  
Nature of Contamination:  
Nature of Residual Contamination:

Not reported  
Oahu  
Honolulu Harbor Pier 37  
Chevron Kapalama Southwest Parcel  
Not reported  
110013779713  
HEER  
State  
Hazard Present  
Medium  
Response Necessary  
Response Ongoing  
Found: Subsurface petroleum contamination in soil and groundwater.  
Controls Required to Manage Contamination  
Not reported

Organization:  
Island:  
Supplemental Location Text:  
SDAR Environmental Interest Name:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program Name:  
Potential Hazard And Controls:  
Priority:  
Assessment:  
Response:  
Nature of Contamination:  
Nature of Residual Contamination:

Not reported  
Oahu  
Honolulu Harbor Pier 37  
Chevron Kapalama Southwest Parcel  
Not reported  
110013779713  
HEER  
State  
Hazard Present  
Medium  
Response Necessary  
Response Ongoing  
Found: Subsurface petroleum contamination in soil and groundwater.  
Controls Required to Manage Contamination  
Not reported

**CHEVRON KAPALAMA TERMINAL (Continued)**

Description of Restrictions:  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: Honolulu Harbor Twifai Unit  
 Site Closure Type: Not reported  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Jordan Nakayama  
 Project Manager: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814  
 Contact Information:

**HI SPILLS:**

Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 19930315  
 HID Number: Not reported  
 Facility Registry Id: 110005750842  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 Units: Kapalama South Chevron Fuel Farm, Honolulu, Oahu, HI  
 Substances: Jet Fuel A  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Not reported  
 Assignment End Date: Not reported  
 Result: SOSC NFA  
 File Under: Chevron USA, Inc.

Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 19891225-1  
 HID Number: Not reported  
 Facility Registry Id: 110005730842  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 Units: CHEVRON, 1105 N. NIMITZ HWY.  
 Substances: OIL, LOW SULFUR, HIGH VISCOSITY  
 Less Or Greater Than: Not reported  
 Numerical Quantity: 50  
 Units: Barrels  
 Activity Type: Response  
 Activity Lead: Not reported  
 Assignment End Date: Not reported  
 Result: SOSC NFA  
 File Under: Chevron USA, Inc.

**INST CONTROL:**

Potential hazards and controls: Hazard Managed With Controls  
 Supplemental Location: Honolulu Harbor Pier 37  
 Zip Suffix: Not reported  
 Island: Oahu  
 Institutional Control: Government - Hawaii Dept. of Health Letter issued

**M46**  
**ENE**  
**1/2-1**  
**0.809 mi.**  
**4272 ft.**  
**Relative:**  
**Higher**  
**Actual:**  
**3 ft.**

HART STREET WWFS  
 1031 N NIMITZ HWY  
 HONOLULU, HI 96817  
 Site 1 of 2 in cluster M

SHWS:  
 Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 Environmental Interest: Nimitz Highway Relief Sewer  
 HID Number: Not reported  
 Facility Registry Identifier: 110013788678  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Steve Mow  
 Hazard Priority: Low  
 Potential Hazards And Controls: Hazard Present  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Not reported  
 SDAR Environmental Interest Name: Nimitz Highway Relief Sewer  
 HID Number: Not reported  
 Facility Registry Identifier: 110013788678  
 Lead Agency: HEER  
 Program Name: State  
 Potential Hazard And Controls: Hazard Present  
 Priority: Low  
 Assessment: Response Necessary  
 Nature of Contamination: Response Ongoing  
 Use Restrictions: Found: Subsurface petroleum contamination in soil and groundwater.  
 Engineering Control: Controls Required to Manage Contamination  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: Not reported  
 Site Closure Type: Honolulu Harbor Twifai Unit  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Steve Mow  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**UIC:**  
 UIC Permit Number: UC-2174  
 Facility Id/Lat Long Minute Coordinates: 3-1952.05.1-2  
 Central Latitude Of The Site: 21 19 20  
 Central Longitude Of The Site: 157 52 42  
 Flow In Gallons Per Day: 6,000  
 Total Number Of Inj. Well(S) On Permit: 2  
 Island: Oahu  
 Location In Relation To UIC Line: below  
 Facility Type: CD  
 Subclass: B  
 Facility Operator, Not Contract Opr: Robison Construction, Inc.  
 Operator Address: 3049 Ualea St. #902, Hon. HI 96819  
 Facility Owner: Robison Construction, Inc.  
 Owner Address: 3049 Ualea St./902, Hon. HI 96819

**HART STREET WFPS (Continued)**

Tax Map Key Number: 1:1-5-34:6  
 Owner Of Land Property On Leasehold: none  
 Consultant Serving The Application: Bender Consulting, LLC  
 Receipt Of Initial Application: 5/23/2002  
 Public Notice Date: Not reported  
 Approval-To-Construct Issuance Date: 7/18/2002  
 Exemption Issuance Date: Not reported  
 1st Issuance Of Permit: 7/10/2003  
 Last Issuance Of Permit: Not reported  
 Type: new  
 Permit Expiration Date: 7/9/2006  
 Date When File Is Closed: 5/3/2005  
 UIC Project Geologist: JR  
 Remarks: Not reported

**HAWAII STEVEDORES**

**SHWS:**  
 Organization: Not reported  
 Supplemental Location: Honolulu Harbor Pier 35  
 Island: Oahu  
 Environmental Interest: Chevron Pier 35 Pipeline Release  
 HID Number: Not reported  
 Facility Registry Identifier: 110013779278  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Steve Mow  
 Hazard Priority: Medium  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Honolulu Harbor Pier 35  
 SDAR Environmental Interest Name: Chevron Pier 35 Pipeline Release  
 HID Number: Not reported  
 Facility Registry Identifier: 110013779278  
 Lead Agency: HEER  
 Program Name: State  
 Priority: Medium  
 Potential Hazard And Controls: Hazard Managed With Controls  
 Assessment: Not reported  
 Response: Not reported  
 Nature of Contamination: Not reported  
 Found: Subsurface petroleum contamination in soil  
 Use Restrictions: Not reported  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Areawide Contamination: Not reported  
 Site Closure Type: Not reported  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Steve Mow  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**HAWAII STEVEDORES (Continued)**

Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Organization: Not reported  
 Supplemental Location: Honolulu Harbor  
 Island: Oahu  
 Environmental Interest: Hawaii Stevedores  
 HID Number: Not reported  
 Facility Registry Identifier: 110005725082  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Steve Mow  
 Hazard Priority: Low  
 Potential Hazards And Controls: Hazard Present  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Honolulu Harbor  
 SDAR Environmental Interest Name: Hawaii Stevedores  
 HID Number: Not reported  
 Facility Registry Identifier: 110005725082  
 Lead Agency: HEER  
 Program Name: State  
 Priority: Low  
 Potential Hazard And Controls: Hazard Present  
 Assessment: Not reported  
 Response: Not reported  
 Nature of Contamination: Not reported  
 Found: Subsurface petroleum contamination in soil and groundwater.  
 Use Restrictions: Not reported  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Areawide Contamination: Not reported  
 Site Closure Type: Not reported  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Steve Mow  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**HAWAII STEVEDORES (Continued)**

HI SPILLS:  
 Island: Oahu  
 Supplemental Loc. Text: Honolulu Harbor  
 Case Number: 19941126  
 HID Number: Not reported  
 Facility Registry Id: 110005725082  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 Units: Pier 26, Honolulu Harbor diesel #2, #6, bunker fuel leaching from soil/storm drain  
 Substances: Diesel #2, #6, Bunker Fuel  
 Less Or Greater Than: Not reported  
 Numerical Quantity: 150  
 Units: Gallons  
 Activity Type: Response  
 Activity Lead: Bill Perry  
 Assignment End Date: Not reported  
 Result: SOSC NFA  
 File Under: Hawaii Stevedores, Inc.

**HAWAII STEVEDORES (Continued)**

HI SHWS

**SHWS:**  
 Organization: Not reported  
 Supplemental Location: Honolulu Harbor Pier 35  
 Island: Oahu  
 Environmental Interest: Chevron Pier 35 Pipeline Release  
 HID Number: Not reported  
 Facility Registry Identifier: 110013779278  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Steve Mow  
 Hazard Priority: Medium  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Honolulu Harbor Pier 35  
 SDAR Environmental Interest Name: Chevron Pier 35 Pipeline Release  
 HID Number: Not reported  
 Facility Registry Identifier: 110013779278  
 Lead Agency: HEER  
 Program Name: State  
 Priority: Medium  
 Potential Hazard And Controls: Hazard Managed With Controls  
 Assessment: Not reported  
 Response: Not reported  
 Nature of Contamination: Not reported  
 Found: Subsurface petroleum contamination in soil.  
 Use Restrictions: Not reported  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Areawide Contamination: Not reported  
 Site Closure Type: Not reported  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Steve Mow  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**HAWAII STEVEDORES (Continued)**

HI SHWS

**SHWS:**  
 Organization: Not reported  
 Supplemental Location: Honolulu Harbor Pier 35  
 Island: Oahu  
 Environmental Interest: Chevron Pier 35 Pipeline Release  
 HID Number: Not reported  
 Facility Registry Identifier: 110013779278  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Steve Mow  
 Hazard Priority: Medium  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Honolulu Harbor Pier 35  
 SDAR Environmental Interest Name: Chevron Pier 35 Pipeline Release  
 HID Number: Not reported  
 Facility Registry Identifier: 110013779278  
 Lead Agency: HEER  
 Program Name: State  
 Priority: Medium  
 Potential Hazard And Controls: Hazard Managed With Controls  
 Assessment: Not reported  
 Response: Not reported  
 Nature of Contamination: Not reported  
 Found: Subsurface petroleum contamination in soil.  
 Use Restrictions: Not reported  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Areawide Contamination: Not reported  
 Site Closure Type: Not reported  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Steve Mow  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**HAWAII STEVEDORES (Continued)**

HI SHWS

**SHWS:**  
 Organization: Not reported  
 Supplemental Location: Honolulu Harbor Pier 35  
 Island: Oahu  
 Environmental Interest: Chevron Pier 35 Pipeline Release  
 HID Number: Not reported  
 Facility Registry Identifier: 110013779278  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Steve Mow  
 Hazard Priority: Medium  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Honolulu Harbor Pier 35  
 SDAR Environmental Interest Name: Chevron Pier 35 Pipeline Release  
 HID Number: Not reported  
 Facility Registry Identifier: 110013779278  
 Lead Agency: HEER  
 Program Name: State  
 Priority: Medium  
 Potential Hazard And Controls: Hazard Managed With Controls  
 Assessment: Not reported  
 Response: Not reported  
 Nature of Contamination: Not reported  
 Found: Subsurface petroleum contamination in soil.  
 Use Restrictions: Not reported  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Areawide Contamination: Not reported  
 Site Closure Type: Not reported  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Steve Mow  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Map ID  
Direction  
Distance  
Elevation



Map ID  
Direction  
Distance  
Elevation



Site

Database(s)

EDR ID Number  
EPA ID Number

EDR ID Number  
EPA ID Number

**HAWAII STEVEDORES (Continued)**

S106817380

**GTE HAWAIIAN TEL - CONTAMINATED SOIL (Continued)**

S106817210

ENG CONTROLS:  
Supplemental Location Text:  
Zip Suffix:  
Island:  
Potential Hazards And Controls:  
Engineering Control:

Honolulu Harbor Pier 35  
Not reported  
Oahu  
Hazard Managed With Controls  
Engineering Control Required

HI SHWS  
HI SPILLS  
HI INST CONTROL

Facility Registry Id:  
Lead and Program:  
ER:  
Units:  
Substances:  
Less Or Greater Than:  
Numerical Quantity:  
Units:  
Activity Type:  
Activity Lead:  
Assignment End Date:  
Result:  
File Under:

110013789524  
HEER EP&R  
No  
GTE Hawaiian - Contaminated Soil  
Petroleum  
Not reported  
Not reported  
Not reported  
Response  
Liz Galvez  
Not reported  
Refer to ISST  
Vertizon Hawaii

**M48**  
**ENE**  
**1/2-1**  
**0.813 mi.**  
**4294 ft.**  
**Relative:**  
**Higher**  
**Actual:**  
**3 ft.**

**HI SHWS**  
**S106817210**  
**N/A**

**ENG CONTROLS:**  
Supplemental Location Text:  
Zip Suffix:  
Island:  
Potential Hazards And Controls:  
Engineering Control:

Not reported  
Not reported  
Oahu  
Hazard Managed With Controls  
Engineering Control Required

**HI SHWS**  
**1006818946**  
**HI SPILLS**  
**N/A**

**GTE HAWAIIAN TEL - CONTAMINATED SOIL**  
**ALAKAWA ST & NIMITZ HWY**  
**HONOLULU, HI 96817**  
**Site 2 of 2 in cluster M**

Organization:  
Supplemental Location Text:  
Island:  
Environmental Interest:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program:  
Project Manager:  
Hazard Priority:  
Potential Hazards And Controls:  
Organization:  
Island:  
Supplemental Location Text:  
SDAR Environmental Interest Name:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Potential Hazard And Controls:  
Priority:

Not reported  
Not reported  
Oahu  
GTE Hawaiian Tel - Contaminated Soil  
Not reported  
110013789524  
HEER  
State  
Anna Fernandez  
Low  
Hazard Managed With Controls  
Not reported  
Oahu  
Not reported  
GTE Hawaiian Tel - Contaminated Soil  
Not reported  
110013789524  
HEER  
State  
Hazard Managed With Controls  
Low

**INST CONTROL:**  
Potential hazards and controls:  
Supplemental Location Text:  
Zip Suffix:  
Island:  
Institutional Control:

Hazard Managed With Controls  
Not reported  
Not reported  
Oahu  
Government - Hawaii Dept. of Health Letter issued

**Response:**  
Nature of Contamination:  
Nature of Residual Contamination:  
Use Restrictions:  
Engineering Control:  
Description of Restrictions:  
Institutional Control:  
Within Designated Area-wide Contamination:  
Site Closure Type:  
Document Date:  
Document Number:  
Document Subject:  
Project Manager:  
Contact Information:

Response Necessary  
Response Origin  
Found: Subsurface petroleum in soil  
PCS was discovered here when utility lines were installed. PCS remains there and will need to be managed if daylighted  
Controls Required to Manage Contamination  
Engineering Control Required  
Not reported  
Government - Hawaii Dept. of Health Letter issued  
Honolulu Harbor Iwiwi Unit  
No Further Action Letter - Restricted Use  
09/25/2007  
Not reported  
Not reported  
Anna Fernandez  
(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**SHWS:**  
Organization:  
Supplemental Location Text:  
Island:  
Environmental Interest:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Potential Hazard And Controls:  
Priority:

Not reported  
Suite A265  
Oahu  
McCabe, Hamilton, & Renny Company, Ltd.  
Not reported  
110013767030  
HEER  
State  
Steve Mow  
Low  
Hazard Undetermined  
Not reported  
Oahu  
Suite A265  
McCabe, Hamilton, & Renny Company, Ltd.  
Not reported  
110013767030  
HEER  
State  
Hazard Undetermined  
Low  
Response Necessary

**HI SPILLS:**  
Island:  
Supplemental Loc. Text:  
Case Number:  
HID Number:

Oahu  
Not reported  
20000309-0930  
Not reported

**SHWS:**  
Organization:  
Supplemental Location Text:  
Island:  
Environmental Interest:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Potential Hazard And Controls:  
Priority:

Not reported  
Suite A265  
Oahu  
McCabe, Hamilton, & Renny Company, Ltd.  
Not reported  
110013767030  
HEER  
State  
Steve Mow  
Low  
Hazard Undetermined  
Not reported  
Oahu  
Suite A265  
McCabe, Hamilton, & Renny Company, Ltd.  
Not reported  
110013767030  
HEER  
State  
Hazard Undetermined  
Low  
Response Necessary

**MCCABE HAMILTON & RENNY COMPANY, LTD**  
**1130 N NIMITZ HWY**  
**HONOLULU, HI 96817**  
**Site 3 of 3 in cluster L**

Organization:  
Supplemental Location Text:  
Island:  
Environmental Interest:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program:  
Project Manager:  
Hazard Priority:  
Potential Hazards And Controls:  
Organization:  
Island:  
Supplemental Location Text:  
SDAR Environmental Interest Name:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Potential Hazard And Controls:  
Priority:

Not reported  
Suite A265  
Oahu  
McCabe, Hamilton, & Renny Company, Ltd.  
Not reported  
110013767030  
HEER  
State  
Steve Mow  
Low  
Hazard Undetermined  
Not reported  
Oahu  
Suite A265  
McCabe, Hamilton, & Renny Company, Ltd.  
Not reported  
110013767030  
HEER  
State  
Hazard Undetermined  
Low  
Response Necessary

**SHWS:**  
Organization:  
Supplemental Location Text:  
Island:  
Environmental Interest:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program:  
Project Manager:  
Hazard Priority:  
Potential Hazards And Controls:  
Organization:  
Island:  
Supplemental Location Text:  
SDAR Environmental Interest Name:  
HID Number:  
Facility Registry Identifier:  
Lead Agency:  
Program Name:  
Priority:

Not reported  
Suite A265  
Oahu  
McCabe, Hamilton, & Renny Company, Ltd.  
Not reported  
110013767030  
HEER  
State  
Steve Mow  
Low  
Hazard Undetermined  
Not reported  
Oahu  
Suite A265  
McCabe, Hamilton, & Renny Company, Ltd.  
Not reported  
110013767030  
HEER  
State  
Hazard Undetermined  
Low  
Response Necessary

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Site

EDR ID Number  
EPA ID Number

MAP FINDINGS

**MCCABE, HAMILTON, & RENNY COMPANY, LTD (Continued)**

1006818946

Response: Response Ongoing  
Nature of Contamination: Found: Subsurface petroleum in soil and groundwater  
Nature of Residual Contamination: Not reported  
Use Restrictions: Undetermined  
Engineering Control: Not reported  
Description of Restrictions: Not reported  
Institutional Control: Honolulu Harbor Iwiwi Unit  
Within Designated Area-wide Contamination: Not reported  
Site Closure Type: Not reported  
Document Number: Not reported  
Document Subject: Not reported  
Contact Manager: Steve Mow  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**HI SPILLS:**

Island: Oahu  
Supplemental Loc. Text: Suite A265  
Case Number: 20120211-0948  
HID Number: Not reported  
Facility Registry Id: 110013767030  
Lead and Program: HEER EP&R  
ER: Site Visit  
Units: Grey Substance Behind Nimitz Center  
Substances: Unknown  
Less Or Greater Than: Not reported  
Numerical Quantity: 0  
Units: Not reported  
Activity Type: Response  
Activity Lead: Adam Teekell  
Assignment End Date: Not reported  
Result: Refer to CWB  
File Under: McCabe, Hamilton, & Renny Company, Ltd.

Island: Oahu  
Supplemental Loc. Text: Suite A265  
Case Number: 19881204-1344  
HID Number: Not reported  
Facility Registry Id: 110013767030  
Lead and Program: HEER EP&R  
ER: No  
Units: Pier 1 Container Yard Hydraulic Line Rupture  
Substances: Hydraulic Fluid  
Less Or Greater Than: Not reported  
Numerical Quantity: 100  
Units: Gallons  
Activity Type: Response  
Activity Lead: Terry Corpus  
Assignment End Date: Not reported  
Result: Not reported  
File Under: McCabe, Hamilton, & Renny Company, Ltd.

**CHEVRON HONOLULU TRANSPORTATION TERMINAL**

HI SHWS U003154454  
HI ENG CONTROLS N/A  
HI Financial Assurance

N50  
ENE  
1/2-1  
0.816 mi.  
4371 ft.  
Relative: Higher  
Actual: 3 ft.

933 N NIMITZ HWY  
HONOLULU, HI 96817  
Site 2 of 2 in cluster N  
SHWS:  
Organization: Not reported  
Supplemental Location: Not reported  
Island: Oahu  
Environmental Interest: Chevron Honolulu Transportation Terminal  
HID Number: Not reported  
Facility Registry Identifier: 110000486466  
Lead Agency: HEER  
Program: State  
Project Manager: Jordan Nakayama  
Hazard Priority: Medium  
Potential Hazards And Controls: Hazard Managed With Controls  
Organization: Not reported  
Island: Oahu  
Supplemental Location Text: Not reported  
SDAR Environmental Interest Name: Chevron Honolulu Transportation Terminal  
HID Number: Not reported  
Facility Registry Identifier: 110000486466  
Lead Agency: HEER  
Program Name: State  
Potential Hazard And Controls: Hazard Managed With Controls  
Priority: Medium  
Assessment: Response Necessary  
Response: Response Ongoing  
Nature of Contamination: Found: Subsurface petroleum contamination in soil.  
Use Restrictions: Not reported  
Engineering Control: Controls Required to Manage Contamination  
Description of Restrictions: Engineering Control Required  
Prohibit Any Activity That May Disturb the Integrity of the Capping System and prohibit disturbance of the soil.  
Institutional Control: Not reported  
Within Designated Area-wide Contamination: Honolulu Harbor Iwiwi Unit  
Site Closure Type: Not reported  
Document Date: Not reported  
Document Number: Not reported  
Document Subject: Not reported  
Project Manager: Jordan Nakayama  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**ENG CONTROLS:**

Supplemental Location Text:  
Zip Suffix: Not reported  
Island: Not reported  
Potential Hazards And Controls: Hazard Managed With Controls  
Engineering Control: Engineering Control Required

**HI Financial Assurance:**

Alt Facility ID: 9-100242  
Tank Id: R-1  
Tank Status: Permanently Out of Use  
FRTYPE: Other  
Expiration Date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Site

EDR ID Number  
EPA ID Number

MAP FINDINGS



**O51**  
**ENE**  
 1/2-1  
 0.822 mi.  
 4338 ft.  
**Relative: Higher**  
**Actual: 3 ft.**

**861-869 NORTH NIMITZ HIGHWAY**  
**861-869 N NIMITZ HWY**  
**HONOLULU, HI 96817**  
**Site 1 of 3 in cluster O**

**SHWS:**  
 Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 Environmental Interest: Hakim Properties, Inc.  
 HID Number: Not reported  
 Facility Registry Identifier: 110013790460  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Eric Sadoyama  
 Hazard Priority: NFA  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Not reported  
 SDAR Environmental Interest Name: Hakim Properties, Inc.  
 HID Number: Not reported  
 Facility Registry Identifier: 110013790460  
 Lead Agency: HEER  
 Program Name: State  
 Potential Hazard And Controls: Hazard Managed With Controls  
 Priority: NFA  
 Assessment: Response Necessary  
 Response: Complete  
 Nature of Contamination: Found: Petroleum and related constituents  
 Nature of Residual Contamination: Some constituents remain just above Tier 1 levels including ethylbenzene in soil near one UST removal and scanaphene and fluoranthene in groundwater near hydraulic lift removal site, according to 1997 NFA Itr.  
 Use Restrictions: Controls Required to Manage Contamination  
 Engineering Control: Engineering Control Required  
 Description of Restrictions: Limit Further Land Use - The concrete and asphalt cap must remain intact.  
 Institutional Control: Government - Hawaii Dept. of Health Letter Issued  
 Site Closure Type: Honolulu Harbor Iwilei Unit  
 Document Date: No Further Action Letter - Restricted Use  
 Document Number: 07/13/2005  
 Document Subject: Not reported  
 Project Manager: Eric Sadoyama  
 Contact Information: (608) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**ENG CONTROLS:**  
 Supplemental Location Text: Not reported  
 Zip Suffix: Not reported  
 Island: Oahu  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Engineering Control: Engineering Control Required

**INST CONTROL:**  
 Potential hazards and controls: Hazard Managed With Controls  
 Supplemental Location: Not reported

**O52**  
**ENE**  
 1/2-1  
 0.823 mi.  
 4347 ft.  
**Relative: Higher**  
**Actual: 3 ft.**

**861-869 NORTH NIMITZ HIGHWAY (Continued)**  
**855 N NIMITZ HWY**  
**HONOLULU, HI 96818**  
**Site 2 of 3 in cluster O**

**SHWS:**  
 Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 Environmental Interest: Hawaiian Electric Company (HECO) - Iwilei Tank Yard  
 HID Number: Not reported  
 Facility Registry Identifier: 110013791593  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Steve Mow  
 Hazard Priority: Low  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Not reported  
 SDAR Environmental Interest Name: Hawaiian Electric Company (HECO) - Iwilei Tank Yard  
 HID Number: Not reported  
 Facility Registry Identifier: 110013791593  
 Lead Agency: HEER  
 Program Name: State  
 Potential Hazard And Controls: Hazard Managed With Controls  
 Priority: Low  
 Assessment: Response Necessary  
 Response: Ongoing  
 Nature of Contamination: Found: Petroleum in soil and groundwater  
 Use Restrictions: Not reported  
 Engineering Control: Controls Required to Manage Contamination  
 Description of Restrictions: Prohibit Any Activity That May Disturb the Integrity of the Capping System and prohibit disturbance of the soil.  
 Institutional Control: Government - Hawaii Dept. of Health Letter Issued  
 Site Closure Type: Honolulu Harbor Iwilei Unit  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Steve Mow  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**HI SPILLS:**  
 Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 19990601-1625  
 HID Number: Not reported  
 Facility Registry Id: 110013791593  
 Lead and Program: HEER EP&R  
 ER: No

**O52**  
**ENE**  
 1/2-1  
 0.823 mi.  
 4347 ft.  
**Relative: Higher**  
**Actual: 3 ft.**

**HAWAIIAN ELECTRIC COMPANY (HECO) - IWILEI TANK YARD**  
**855 N NIMITZ HWY**  
**HONOLULU, HI 96818**  
**Site 2 of 3 in cluster O**

**SHWS:**  
 Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 Environmental Interest: Hawaiian Electric Company (HECO) - Iwilei Tank Yard  
 HID Number: Not reported  
 Facility Registry Identifier: 110013791593  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Steve Mow  
 Hazard Priority: Low  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Not reported  
 SDAR Environmental Interest Name: Hawaiian Electric Company (HECO) - Iwilei Tank Yard  
 HID Number: Not reported  
 Facility Registry Identifier: 110013791593  
 Lead Agency: HEER  
 Program Name: State  
 Potential Hazard And Controls: Hazard Managed With Controls  
 Priority: Low  
 Assessment: Response Necessary  
 Response: Ongoing  
 Nature of Contamination: Found: Petroleum in soil and groundwater  
 Use Restrictions: Not reported  
 Engineering Control: Controls Required to Manage Contamination  
 Description of Restrictions: Prohibit Any Activity That May Disturb the Integrity of the Capping System and prohibit disturbance of the soil.  
 Institutional Control: Government - Hawaii Dept. of Health Letter Issued  
 Site Closure Type: Honolulu Harbor Iwilei Unit  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Steve Mow  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**HI SPILLS:**  
 Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 19990601-1625  
 HID Number: Not reported  
 Facility Registry Id: 110013791593  
 Lead and Program: HEER EP&R  
 ER: No

**HAWAIIAN ELECTRIC COMPANY (HECO) - IWILEI TANK YARD (Continued)** U001235311

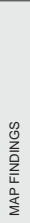
Substances: HECO Tank Fuel Leak  
 Less Or Greater Than: Unknown  
 Numerical Quantity: Not reported  
 Units: 400  
 Gallons  
 Activity Type: Response  
 Activity Lead: Mike Cripps  
 Assignment End Date: Not reported  
 Result: SOSC NFA  
 File Under: Hawaiian Electric Co., Inc. (HECO)

Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 20050906-1122  
 HID Number: Not reported  
 Facility Registry Id: 110013791593  
 Lead and Program: HEER EP&R  
 ER: No  
 Units: Weathered Petroleum Discovered during Pole Excavation  
 Substances: Diesel Fuel/Fuel Oil  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Response  
 Activity Type: Curtis Martin  
 Activity Lead: Not reported  
 Assignment End Date: 2006-05-31 00:00:00  
 Result: Refer to SDAR  
 File Under: Hawaiian Electric Co., Inc. (HECO)

Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 20050906-1122  
 HID Number: Not reported  
 Facility Registry Id: 110013791593  
 Lead and Program: HEER EP&R  
 ER: No  
 Units: Weathered Petroleum Discovered during Pole Excavation  
 Substances: Fuel Oil  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Response  
 Activity Type: Curtis Martin  
 Activity Lead: Not reported  
 Assignment End Date: 2006-05-31 00:00:00  
 Result: Refer to SDAR  
 File Under: Hawaiian Electric Co., Inc. (HECO)

Supplemental Location Text: Not reported  
 Zip Suffix: Not reported  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Engineering Control: Hazard Managed With Controls  
 Engineering Control Required

INST CONTROL:  
 Potential hazards and controls: Hazard Managed With Controls



Site

**HAWAIIAN ELECTRIC COMPANY (HECO) - IWILEI TANK YARD (Continued)**

Supplemental Location: Not reported  
 Zip Suffix: Not reported  
 Island: Oahu  
 Institutional Control: Government - Hawaii Dept. of Health Letter issued

O53  
 ENE  
 1/2-1  
 0.832 mi.  
 4393 ft.  
 Relative:  
 Higher  
 Actual:  
 3 ft.

SHWS:  
 Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 Environmental Interest: Weyerhaeuser  
 HID Number: Not reported  
 Facility Registry Identifier: 11000760390  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Amelia Hicks  
 Hazard Priority: Low  
 Potential Hazards And Controls: Hazard Present  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Not reported  
 SDAR Environmental Interest Name: Weyerhaeuser  
 HID Number: Not reported  
 Facility Registry Identifier: 11000760390  
 Lead Agency: HEER  
 Program Name: State  
 Potential Hazard And Controls: Hazard Present  
 Priority: Low  
 Assessment: Response Necessary  
 Response: Response Ongoing  
 Nature of Contamination: Found: Subsurface petroleum contamination in soil and groundwater  
 Use Restrictions: Not reported  
 Engineering Control: Controls Required to Manage Contamination  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: Honolulu Harbor Wilei Unit  
 Site Closure Type: Not reported  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Amelia Hicks  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:  
 Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 19931115  
 HID Number: Not reported  
 Facility Registry Id: 11000760390  
 Lead and Program: HEER EP&R  
 ER: Not reported

**WEYERHAEUSER (Continued)**

Units: Weyerhaeuser, 900 North Nimitz, Honolulu, Oahu, HI  
 Substances: Antifreeze  
 Less Or Greater Than: Not reported  
 Numerical Quantity: 4  
 Gallons  
 Activity Type: Not reported  
 Activity Lead: Not reported  
 Assignment End Date: Not reported  
 Result: SOSCF NFA  
 File Under: Weyerhaeuser

Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 19940310-2  
 HID Number: Not reported  
 Facility Registry Id: 110001760390  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 Units: Weyerhaeuser  
 Substances: Diesel Fuel  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Not reported  
 Assignment End Date: Not reported  
 Result: SOSCF NFA  
 File Under: Weyerhaeuser

Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 19960609-0930  
 HID Number: Not reported  
 Facility Registry Id: 110001760390  
 Lead and Program: HEER EP&R  
 ER: No  
 Units: Weyerhaeuser Corporation  
 Substances: petroleum and creosote soaked railroad ties.  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Bryce Hataoka  
 Assignment End Date: Not reported  
 Result: SOSCF NFA  
 File Under: Weyerhaeuser

**218 MOHONUA PLACE (Continued)**

HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Lead Agency: State  
 Program: Cal Miyahara  
 Project Manager: Medium  
 Hazard Priority: Hazard Present  
 Potential Hazards And Controls: Not reported  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Not reported  
 SDAR Environmental Interest Name: 218 Mohonua Place  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Lead Agency: State  
 Program Name: Hazard Present  
 Potential Hazard And Controls: Medium  
 Priority: Hazard Present  
 Assessment: Response Necessary  
 Response: Response Ongoing  
 Nature of Contamination: Found: Arsenic, cadmium, lead, mercury, and TPH diesel and oil in soil above HDOH Interim Final EAL. Lead in groundwater above HDOH Interim Final EAL in a temp well on the southwest-central portion of the site. Petroleum impacted soil in western portion.

Nature of Residual Contamination: Not reported  
 Use Restrictions: Controls Required to Manage Contamination  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: Honolulu Harbor Sand Island Unit  
 Site Closure Type: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Cal Miyahara  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**55**  
 East  
 1/2-1  
 0.841 mi.  
 4438 ft.  
 Relative: Higher  
 Actual: 3 ft.

**CHEVRON HONOLULU TERMINAL MARINE**  
 777 N NIMITZ HWY  
 HONOLULU, HI 96817

SHWS: Not reported  
 Organization: Not reported  
 Supplemental Location: Oahu  
 Island: Chevron Honolulu Terminal Marine  
 Environmental Interest: Not reported  
 HID Number: 110000486457  
 Facility Registry Identifier: HEER  
 Lead Agency: State  
 Project Manager: Steve Now  
 Hazard Priority: Medium  
 Potential Hazards And Controls: Hazard Present  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Chevron Honolulu Terminal Marine  
 SDAR Environmental Interest Name: Not reported

**K54**  
 North  
 1/2-1  
 0.832 mi.  
 4393 ft.  
 Relative: Higher  
 Actual: 3 ft.

**218 MOHONUA PLACE**  
 HONOLULU, HI

SHWS: Not reported  
 Organization: Not reported  
 Supplemental Location: Oahu  
 Island: 218 Mohonua Place  
 Environmental Interest: Not reported

**Site 2 of 2 in cluster K**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CHEVRON HONOLULU TERMINAL MARINE (Continued)**

U001235369

HID Number: Not reported  
Facility Registry Identifier: 110000486457  
Lead Agency: HEER  
Program Name: Hazard Present  
Potential Hazard And Controls: Medium  
Priority: Response Necessary  
Assessment: Response Ongoing  
Response: Found: Subsurface petroleum contamination in soil and groundwater  
Nature of Contamination: Controls Required to Manage Contamination  
Use Restrictions: Not reported  
Engineering Control: Not reported  
Description of Restrictions: Not reported  
Institutional Control: Honolulu Harbor Iwiwi Unit  
Within Designated Area-wide Contamination: Not reported  
Site Closure Type: Not reported  
Document Number: Not reported  
Document Subject: Not reported  
Project Manager: Steve Mow  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**HI SPILLS:**

Island: Oahu  
Supplemental Loc. Text: Not reported  
Case Number: 20110131-1610  
HID Number: Not reported  
Facility Registry Id: 110000486457  
Lead and Program: HEER EP&R  
ER: None  
Units: Honolulu Harbor Pier 29  
Substances: Oil  
Less Or Greater Than: Not reported  
Numerical Quantity: 0  
Units: TC  
Activity Type: Not reported  
Activity Lead: Response  
Assignment End Date: Not reported  
Result: Refer to SDAR  
File Under: Chevron USA, Inc.

Island: Oahu  
Supplemental Loc. Text: Not reported  
Case Number: 20110613-0645  
HID Number: Not reported  
Facility Registry Id: 110000486457  
Lead and Program: HEER EP&R  
ER: None  
Units: Drill - Diesel Fuel Release 979517  
Substances: Diesel Fuel #2 Low Sulfur  
Less Or Greater Than: Not reported  
Numerical Quantity: 900  
Units: Gallons  
Activity Type: Response  
Activity Lead: Liz Galvez  
Assignment End Date: Not reported  
Result: Not reported

**CHEVRON HONOLULU TERMINAL MARINE (Continued)**

U001235369

File Under: Chevron USA, Inc.  
Island: Oahu  
Supplemental Loc. Text: Not reported  
Case Number: 20110629-1235  
HID Number: Not reported  
Facility Registry Id: 110000486457  
Lead and Program: HEER EP&R  
ER: None  
Units: Drill - Hole in a Fence  
Substances: Not reported  
Less Or Greater Than: Not reported  
Numerical Quantity: Not reported  
Units: Not reported  
Activity Type: Response  
Activity Lead: Liz Galvez  
Assignment End Date: Not reported  
Result: Not reported  
File Under: Chevron USA, Inc.

Island: Oahu  
Supplemental Loc. Text: Honolulu Chevron Marine Terminal  
Case Number: 20120711-1530  
HID Number: Not reported  
Facility Registry Id: 110000486457  
Lead and Program: HEER EP&R  
ER: None  
Units: Chevron Marine Terminal sheen  
Substances: Petroleum  
Less Or Greater Than: Not reported  
Numerical Quantity: 0  
Units: Not reported  
Activity Type: Response  
Activity Lead: Liz Galvez  
Assignment End Date: 2012-07-12 00:00:00  
Result: Refer to SDAR  
File Under: Chevron USA, Inc.

Island: Oahu  
Supplemental Loc. Text: Pier 30  
Case Number: 20071004-1400  
HID Number: Not reported  
Facility Registry Id: HEER EP&R  
Lead and Program: HEER EP&R  
ER: Site Visit  
Units: Mississippi Voyager Diesel Release  
Substances: Diesel Fuel  
Less Or Greater Than: Not reported  
Numerical Quantity: 5  
Units: Barrels  
Activity Type: Response  
Activity Lead: Paul Chong  
Assignment End Date: 2007-10-05 00:00:00  
Result: SOS NFA  
File Under: Chevron Honolulu Terminal Marine

Map ID  
Direction  
Distance  
Elevation



Site  
EPA ID Number  
Database(s)

Map ID  
Direction  
Distance  
Elevation



Site  
EPA ID Number  
Database(s)

**CHEVRON HONOLULU TERMINAL MARINE (Continued)**

[Click this hazardlink](http://clickthis.hazardlink.com) while viewing on your computer to access 8 additional HI SPILLS records in the EDR Site Report.

U001235369

**P57**  
East  
1/2-1  
0.856 mi.  
4519 ft.

HI SHWS  
HI SPILLS  
HI ENG CONTROLS  
HI INST CONTROL

**PAULEY PETROLEUM**  
795 N NIMITZ HWY  
HONOLULU, HI 96817  
Site 1 of 3 in cluster P

**56**  
ESE  
1/2-1  
0.842 mi.  
4444 ft.

**SAND ISLAND BUSINESS ASSOCIATION LOT 023**  
1020 ULUPONO ST  
HONOLULU, HI 96819

U00620004  
N/A

**Relative: Higher**  
**Actual: 3 ft.**

**SHWS:**  
Organization: Not reported  
Supplemental Location: Sand Island Business Association Lot 023  
Island: Oahu  
Environmental Interest: Sand Island Business Association Lot 023 AST  
HID Number: Not reported  
Facility Registry Identifier: 110013778830  
Lead Agency: State  
Project Manager: Laura Young  
Hazard Priority: Hazard Undetermined  
Potential Hazards And Controls: Not reported  
Organization: Oahu  
Supplemental Location Text: Sand Island Business Association Lot 023  
SDAR Environmental Interest Name: Sand Island Business Association Lot 023 AST  
HID Number: Not reported  
Facility Registry Identifier: 110013778830  
Lead Agency: State  
Program Name: Hazard Undetermined  
Potential Hazard And Controls: Not reported  
Priority: NFA  
Assessment: Assessment Ongoing  
Response: Not reported  
Nature of Contamination: Not reported  
Use Residual Contamination: Not reported  
Engineering Control: Undetermined  
Description of Restrictions: Not reported  
Institutional Control: Not reported  
Within Designated Areawide Contamination: Honolulu Harbor Sand Island Unit  
Site Closure Type: No Further Action - Type Undetermined  
Document Date: 07/08/2002  
Document Number: Not reported  
Document Subject: Laura Young  
Project Manager: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814  
Contact Information:

**Relative: Higher**  
**Actual: 3 ft.**

**SHWS:**  
Organization: Not reported  
Supplemental Location: Sand Island Business Association Lot 023  
Island: Oahu  
Environmental Interest: Sand Island Business Association Lot 023 AST  
HID Number: Not reported  
Facility Registry Identifier: 110013778830  
Lead Agency: State  
Project Manager: Laura Young  
Hazard Priority: Hazard Undetermined  
Potential Hazards And Controls: Not reported  
Organization: Oahu  
Supplemental Location Text: Sand Island Business Association Lot 023  
SDAR Environmental Interest Name: Sand Island Business Association Lot 023 AST  
HID Number: Not reported  
Facility Registry Identifier: 110013778830  
Lead Agency: State  
Program Name: Hazard Undetermined  
Potential Hazard And Controls: Not reported  
Priority: NFA  
Assessment: Assessment Ongoing  
Response: Not reported  
Nature of Contamination: Not reported  
Use Residual Contamination: Not reported  
Engineering Control: Undetermined  
Description of Restrictions: Not reported  
Institutional Control: Not reported  
Within Designated Areawide Contamination: Honolulu Harbor Sand Island Unit  
Site Closure Type: No Further Action - Type Undetermined  
Document Date: 07/08/2002  
Document Number: Not reported  
Document Subject: Laura Young  
Project Manager: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814  
Contact Information:

**SHWS:**  
Organization: Not reported  
Supplemental Location: Honolulu Harbor Pier 32/33  
Island: Oahu  
Environmental Interest: Former Pauley Petroleum  
HID Number: Not reported  
Facility Registry Identifier: 110013773522  
Lead Agency: HEER  
Project Manager: State  
Hazard Priority: Clarence Callahan  
Potential Hazards And Controls: NFA  
Organization: Hazard Managed With Controls  
Island: Not reported  
Supplemental Location Text: Honolulu Harbor Pier 32/33  
SDAR Environmental Interest Name: Former Pauley Petroleum  
HID Number: Not reported  
Facility Registry Identifier: 110013773522  
Lead Agency: HEER  
Program Name: State  
Potential Hazard And Controls: Hazard Managed With Controls  
Priority: NFA  
Assessment: Assessment Ongoing  
Response: Not reported  
Nature of Contamination: Found: NFA for pesticide storage but industrial waste and hydrocarbons still under investigation.  
Use Residual Contamination: Not reported  
Engineering Control: Controls Required to Manage Contamination  
Description of Restrictions: Prohibit Any Activity That May Disturb the Integrity of the Capping System and prohibit disturbance of the soil.  
Institutional Control: Government - Hawaii Dept. of Health Letter Issued  
Within Designated Areawide Contamination: Honolulu Harbor Waiia Unit  
Site Closure Type: No Further Action Letter - Restricted Use  
Document Date: 11/16/2005  
Document Number: 2005-594-CAC  
Document Subject: No Further Action Letter  
Project Manager: Clarence Callahan  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**SHWS:**  
Organization: Not reported  
Supplemental Location: Honolulu Harbor Pier 32/33  
Island: Oahu  
Environmental Interest: Former Pauley Petroleum  
HID Number: Not reported  
Facility Registry Identifier: 110013773522  
Lead Agency: HEER  
Project Manager: State  
Hazard Priority: Clarence Callahan  
Potential Hazards And Controls: NFA  
Organization: Hazard Managed With Controls  
Island: Not reported  
Supplemental Location Text: Honolulu Harbor Pier 32/33  
SDAR Environmental Interest Name: Former Pauley Petroleum  
HID Number: Not reported  
Facility Registry Identifier: 110013773522  
Lead Agency: HEER  
Program Name: State  
Potential Hazard And Controls: Hazard Managed With Controls  
Priority: NFA  
Assessment: Assessment Ongoing  
Response: Not reported  
Nature of Contamination: Found: NFA for pesticide storage but industrial waste and hydrocarbons still under investigation.  
Use Residual Contamination: Not reported  
Engineering Control: Controls Required to Manage Contamination  
Description of Restrictions: Prohibit Any Activity That May Disturb the Integrity of the Capping System and prohibit disturbance of the soil.  
Institutional Control: Government - Hawaii Dept. of Health Letter Issued  
Within Designated Areawide Contamination: Honolulu Harbor Waiia Unit  
Site Closure Type: No Further Action Letter - Restricted Use  
Document Date: 11/16/2005  
Document Number: 2005-594-CAC  
Document Subject: No Further Action Letter  
Project Manager: Clarence Callahan  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**Relative: Higher**  
**Actual: 3 ft.**

**SHWS:**  
Organization: Not reported  
Supplemental Location: Honolulu Harbor Pier 32/33  
Island: Oahu  
Environmental Interest: Former Pauley Petroleum  
HID Number: Not reported  
Facility Registry Identifier: 110013773522  
Lead Agency: HEER  
Project Manager: State  
Hazard Priority: Clarence Callahan  
Potential Hazards And Controls: NFA  
Organization: Hazard Managed With Controls  
Island: Not reported  
Supplemental Location Text: Honolulu Harbor Pier 32/33  
SDAR Environmental Interest Name: Former Pauley Petroleum  
HID Number: Not reported  
Facility Registry Identifier: 110013773522  
Lead Agency: HEER  
Program Name: State  
Potential Hazard And Controls: Hazard Managed With Controls  
Priority: NFA  
Assessment: Assessment Ongoing  
Response: Not reported  
Nature of Contamination: Found: NFA for pesticide storage but industrial waste and hydrocarbons still under investigation.  
Use Residual Contamination: Not reported  
Engineering Control: Controls Required to Manage Contamination  
Description of Restrictions: Prohibit Any Activity That May Disturb the Integrity of the Capping System and prohibit disturbance of the soil.  
Institutional Control: Government - Hawaii Dept. of Health Letter Issued  
Within Designated Areawide Contamination: Honolulu Harbor Waiia Unit  
Site Closure Type: No Further Action Letter - Restricted Use  
Document Date: 11/16/2005  
Document Number: 2005-594-CAC  
Document Subject: No Further Action Letter  
Project Manager: Clarence Callahan  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**SHWS:**  
Organization: Not reported  
Supplemental Location: Honolulu Harbor Pier 32/33  
Island: Oahu  
Environmental Interest: Former Pauley Petroleum  
HID Number: Not reported  
Facility Registry Identifier: 110013773522  
Lead Agency: HEER  
Project Manager: State  
Hazard Priority: Clarence Callahan  
Potential Hazards And Controls: NFA  
Organization: Hazard Managed With Controls  
Island: Not reported  
Supplemental Location Text: Honolulu Harbor Pier 32/33  
SDAR Environmental Interest Name: Former Pauley Petroleum  
HID Number: Not reported  
Facility Registry Identifier: 110013773522  
Lead Agency: HEER  
Program Name: State  
Potential Hazard And Controls: Hazard Managed With Controls  
Priority: NFA  
Assessment: Assessment Ongoing  
Response: Not reported  
Nature of Contamination: Found: NFA for pesticide storage but industrial waste and hydrocarbons still under investigation.  
Use Residual Contamination: Not reported  
Engineering Control: Controls Required to Manage Contamination  
Description of Restrictions: Prohibit Any Activity That May Disturb the Integrity of the Capping System and prohibit disturbance of the soil.  
Institutional Control: Government - Hawaii Dept. of Health Letter Issued  
Within Designated Areawide Contamination: Honolulu Harbor Waiia Unit  
Site Closure Type: No Further Action Letter - Restricted Use  
Document Date: 11/16/2005  
Document Number: 2005-594-CAC  
Document Subject: No Further Action Letter  
Project Manager: Clarence Callahan  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**SHWS:**  
Organization: Not reported  
Supplemental Location: Honolulu Harbor Pier 32/33  
Island: Oahu  
Environmental Interest: Former Pauley Petroleum  
HID Number: Not reported  
Facility Registry Identifier: 110013773522  
Lead Agency: HEER  
Project Manager: State  
Hazard Priority: Clarence Callahan  
Potential Hazards And Controls: NFA  
Organization: Hazard Managed With Controls  
Island: Not reported  
Supplemental Location Text: Honolulu Harbor Pier 32/33  
SDAR Environmental Interest Name: Former Pauley Petroleum  
HID Number: Not reported  
Facility Registry Identifier: 110013773522  
Lead Agency: HEER  
Program Name: State  
Potential Hazard And Controls: Hazard Managed With Controls  
Priority: NFA  
Assessment: Assessment Ongoing  
Response: Not reported  
Nature of Contamination: Found: NFA for pesticide storage but industrial waste and hydrocarbons still under investigation.  
Use Residual Contamination: Not reported  
Engineering Control: Controls Required to Manage Contamination  
Description of Restrictions: Prohibit Any Activity That May Disturb the Integrity of the Capping System and prohibit disturbance of the soil.  
Institutional Control: Government - Hawaii Dept. of Health Letter Issued  
Within Designated Areawide Contamination: Honolulu Harbor Waiia Unit  
Site Closure Type: No Further Action Letter - Restricted Use  
Document Date: 11/16/2005  
Document Number: 2005-594-CAC  
Document Subject: No Further Action Letter  
Project Manager: Clarence Callahan  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

**PAULEY PETROLEUM (Continued)**

Response: Not reported  
 Activity Lead: Liz Galvez  
 Assignment End Date: Not reported  
 Result: Not reported  
 File Under: State of Hawaii, Department of Transportation, Harbors Division

Island: Oahu  
 Supplemental Loc. Text: Honolulu Harbor Pier 32/33  
 Case Number: 20050518-1415  
 HID Number: Not reported  
 Facility Registry Id: 110013773522  
 Lead and Program: HEER EP&R  
 ER: Site Visit  
 Substances: Petroleum contamination found in trenches  
 Oil  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Liz Galvez  
 Assignment End Date: 2005-05-19 00:00:00  
 Result: Refer to SDAR  
 File Under: State of Hawaii, Department of Transportation, Harbors Division

**ENG CONTROLS:**

Supplemental Location Text: Honolulu Harbor Pier 32/33  
 Zip Suffix: Not reported  
 Island: Oahu  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Engineering Control: Engineering Control Required

**INST CONTROL:**

Potential hazards and controls: Hazard Managed With Controls  
 Supplemental Location: Honolulu Harbor Pier 32/33  
 Zip Suffix: Not reported  
 Island: Oahu  
 Institutional Control: Government - Hawaii Dept. of Health Letter issued

**PAULEY PETROLEUM**

East 1/2-1 0.861 mi.  
 4548 ft.  
 Relative: Higher  
 Actual: 3 ft.

Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 Equilon Enterprises LLC Honolulu Terminal  
 Environmental Interest: Not reported  
 HID Number: 110000486475  
 Facility Registry Identifier: HEER  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Anna Fernandez  
 Hazard Priority: Low  
 Potential Hazards And Controls: Hazard Present  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Not reported  
 SDAR Environmental Interest Name: Equilon Enterprises LLC Honolulu Terminal  
 HID Number: Not reported  
 Facility Registry Identifier: 110000486475  
 Lead Agency: HEER  
 Program Name: State  
 Potential Hazard And Controls: Hazard Present  
 Priority: Low  
 Assessment: Response Necessary  
 Response: Response Ongoing  
 Nature of Contamination: Found: Subsurface petroleum contamination in soil and groundwater.  
 Use Restrictions: Not reported  
 Engineering Control: Controls Required to Manage Contamination  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: Honolulu Harbor Mflal Unit  
 Site Closure Type: Not reported  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Anna Fernandez  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**PAULEY PETROLEUM**

East 1/2-1 0.880 mi.  
 4644 ft.  
 Relative: Higher  
 Actual: 3 ft.

Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 775 North Nimitz Highway  
 Environmental Interest: 775 North Nimitz Highway  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Steve Mow

**ENG CONTROLS:**

Supplemental Location Text: Honolulu Harbor Pier 32/33  
 Zip Suffix: Not reported  
 Island: Oahu  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Engineering Control: Engineering Control Required

**INST CONTROL:**

Potential hazards and controls: Hazard Managed With Controls  
 Supplemental Location: Honolulu Harbor Pier 32/33  
 Zip Suffix: Not reported  
 Island: Oahu  
 Institutional Control: Government - Hawaii Dept. of Health Letter issued

**ENG CONTROLS:**

Supplemental Location Text: Honolulu Harbor Pier 32/33  
 Zip Suffix: Not reported  
 Island: Oahu  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Engineering Control: Engineering Control Required

**INST CONTROL:**

Potential hazards and controls: Hazard Managed With Controls  
 Supplemental Location: Honolulu Harbor Pier 32/33  
 Zip Suffix: Not reported  
 Island: Oahu  
 Institutional Control: Government - Hawaii Dept. of Health Letter issued

**775 NORTH NIMITZ HIGHWAY (Continued)** S110061247 S1108005729

Hazard Priority: Medium  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: 775 North Nimitz Highway  
 SDAR Environmental Interest Name: Not reported  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Program Name: State  
 Potential Hazard And Controls: Hazard Managed With Controls  
 Priority: Medium  
 Assessment: Response Necessary  
 Response: Response Ongoing  
 Nature of Contamination: Not reported  
 Use Restrictions: Controls Required to Manage Contamination  
 Engineering Control: Engineering Control Required  
 Description of Restrictions: Not reported  
 Institutional Control: Government - Hawaii Dept. of Health Letter Issued  
 Within Designated Areawide Contamination: Honolulu Harbor Iwilei Unit  
 Site Closure Type: Not reported  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Steve Mow  
 Project Manager: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814  
 Contact Information:

**BEST BUY (Continued)**  
 Project Manager: Mark Sutterfield  
 Hazard Priority: NFA  
 Potential Hazards And Controls: No Hazard  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Not reported  
 SDAR Environmental Interest Name: Best Buy  
 HID Number: Not reported  
 Facility Registry Identifier: Not reported  
 Program Name: State  
 Potential Hazard And Controls: No Hazard  
 Priority: NFA  
 Assessment: Response Necessary  
 Response: Response Complete  
 Nature of Contamination: Found: Hydrocarbon  
 Use Restrictions: No (hydrocarbon) contamination left on site above EALS.  
 Engineering Control: No Hazard Present for Unrestricted Residential Use  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Areawide Contamination: Honolulu Harbor Iwilei Unit  
 Site Closure Type: No Further Action Letter - Unrestricted Residential Use  
 Document Date: 01/24/2006  
 Document Number: 2006-039-MS  
 Document Subject: NFA letter  
 Project Manager: Mark Sutterfield  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**ENG CONTROLS:**  
 Supplemental Location Text: Not reported  
 Zip Suffix: Not reported  
 Island: Oahu  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Engineering Control: Engineering Control Required

**INST CONTROL:**  
 Potential hazards and controls: Hazard Managed With Controls  
 Supplemental Location: Not reported  
 Zip Suffix: Not reported  
 Island: Oahu  
 Institutional Control: Government - Hawaii Dept. of Health Letter Issued

**G60**  
 ENE  
 1/2-1  
 0.904 mi.  
 4774 ft.  
 Relative: Higher  
 Actual: 3 ft.

**BEST BUY**  
 ALAKAWA ST & NIMITZ HWY  
 HONOLULU, HI 96817

**Site 1 of 2 in cluster Q**  
 SHWS:  
 Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 Environmental Interest: Best Buy  
 HID Number: Not reported  
 Facility Registry Identifier: Not reported  
 Lead Agency: Not reported  
 Program: State

**HI SHWS** S106006729  
**HI SPILLS** N/A

**R61 North**  
**1/2-1**  
**0.910 mi.**  
**4806 ft.**  
**Relative: Higher**  
**Actual: 3 ft.**

**LONGS DRUG STORES WAREHOUSE**  
**2270 HOONEE PL**  
**HONOLULU, HI 96819**  
**Site 1 of 2 in cluster R**

SHWS:  
 Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 Environmental Interest: Longs Drug Stores Warehouse  
 HID Number: Not reported  
 Facility Registry Identifier: 110013771203  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Eric Saboyama  
 Hazard Priority: Low  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Longs Drug Stores Warehouse  
 SДАР Environmental Interest Name: Not reported  
 HID Number: Not reported  
 Facility Registry Identifier: 110013771203  
 Lead Agency: HEER  
 Program Name: Hazard Managed With Controls  
 Priority: Low  
 Assessment: Response Necessary  
 Nature of Contamination: Found: Petroleum in soil and groundwater  
 Use Restrictions: Petroleum in soil and groundwater  
 Engineering Control: Controls Required to Manage Contamination  
 Description of Restrictions: Prohibit Excavation  
 Institutional Control: Government - Hawaii Dept. of Health Letter issued  
 Site Closure Type: No Further Action Letter - Restricted Use  
 Document Date: 01/30/2014  
 Document Number: 2014-065-ES  
 Document Subject: No Further Action with Institutional Controls Determination for Longs Drug Stores Warehouse  
 Project Manager: Eric Saboyama  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**HI SHWS**  
**HI SPILLS**  
**HI ENG CONTROLS**  
**HI INST CONTROL**

**LONGS DRUG STORES WAREHOUSE (Continued)**  
 Activity Lead: Terry Corpus  
 Assignment End Date: Not reported  
 Result: Refer to ISST  
 File Under: Longs Drugs  
 ENG CONTROLS:  
 Supplemental Location Text: Not reported  
 Zip Suffix: Not reported  
 Island: Oahu  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Engineering Control: Engineering Control Required  
 INST CONTROL:  
 Potential Hazards and controls: Hazard Managed With Controls  
 Supplemental Location: Not reported  
 Zip Suffix: Not reported  
 Island: Oahu  
 Institutional Control: Government - Hawaii Dept. of Health Letter issued

**SHWS:**  
 Organization: Not reported  
 Supplemental Location: Akamai Car Rental  
 Island: Oahu  
 Environmental Interest: 755 North Nimitz Highway  
 HID Number: Not reported  
 Facility Registry Identifier: Not reported  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Steve Mow  
 Hazard Priority: Medium  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Akamai Car Rental  
 SДАР Environmental Interest Name: 755 North Nimitz Highway  
 HID Number: Not reported  
 Lead Agency: HEER  
 Facility Registry Identifier: Not reported  
 Program Name: State  
 Potential Hazard And Controls: Hazard Managed With Controls  
 Priority: Medium  
 Assessment: Response Necessary  
 Nature of Contamination: Response Ongoing  
 Use Restrictions: Found: petroleum in soil  
 Engineering Control: Controls Required to Manage Contamination  
 Description of Restrictions: Not reported  
 Institutional Control: Government - Hawaii Dept. of Health Letter issued  
 Site Closure Type: Within Designated Area-wide Contamination: Honolulu Harbor Wtial Unit  
 Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

S110061246

HAGADONE PRINTING COMPANY SAND ISLAND (Continued)

755 N NIMITZ HWY

Not reported  
Not reported  
Steve Mow  
(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:  
Island: Oahu  
Supplemental Loc. Text: Akamai Car Rental  
Case Number: 20081119-0855  
HID Number: Not reported  
Facility Registry Id: Not reported  
Lead and Program: HEER-EP&R  
ER: Not reported  
Units: 755 N Nimitz Hwy  
Substances: Oil  
Less Or Greater Than: Not reported  
Numerical Quantity: 0  
Activity Type: Response  
Activity Lead: Anna Fernandez  
Assignment End Date: Not reported  
Result: Not reported  
File Under: Kristina S Quilton Trust

ENG CONTROLS:  
Supplemental Location Text: Akamai Car Rental  
Island: Oahu  
Potential Hazards And Controls: Hazard Managed With Controls  
Engineering Control: Engineering Control Required

INST CONTROL:  
Potential hazards and controls: Hazard Managed With Controls  
Supplemental Location: Akamai Car Rental  
Island: Oahu  
Institutional Control: Government - Hawaii Dept. of Health Letter issued

R63  
North  
1/2-1  
0.915 mi.  
4832 ft.

HAGADONE PRINTING COMPANY SAND ISLAND  
2278 HOONEE PL  
HONOLULU, HI 96819

Site 2 of 2 in cluster R

SHWS:  
Organization: Not reported  
Supplemental Location: Oahu  
Environmental Interest: Hagadone Printing Company Sand Island  
Facility Registry Identifier: 110013790139  
Lead Agency: HEER  
Program: State  
Project Manager: Eric Sadoyama  
Hazard Priority: NFA

Relative: Higher  
Actual: 3 ft.

S110061246

HAGADONE PRINTING COMPANY SAND ISLAND (Continued)

Potential Hazards And Controls: Hazard Managed With Controls  
Organization: Not reported  
Island: Oahu  
Supplemental Location Text: SDAR Environmental Interest Name: Hagadone Printing Company Sand Island  
HID Number: Not reported  
Facility Registry Identifier: 110013790139  
Lead Agency: HEER  
Program Name: State  
Potential Hazard And Controls: Hazard Managed With Controls  
Priority: NFA  
Assessment: Response Necessary  
Response: Response Complete  
Nature of Contamination: Found: Petroleum in soil and groundwater.  
Nature of Residual Contamination: Petroleum in soil and groundwater.  
Use Restrictions: Controls Required to Manage Contamination  
Engineering Control: Not reported  
Description of Restrictions: Prohibit Excavation  
Institutional Control: Government - Hawaii Dept. of Health Letter Issued  
Within Designated Areawide Contamination: Not reported  
Site Closure Type: No Further Action Letter - Restricted Use  
Document Date: 03/16/2004  
Document Number: 2004-099ES  
Document Subject: Former Hagadone Printing Company site, 2278 Ho'ona e Pl, Honolulu  
Project Manager: Eric Sadoyama  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

INST CONTROL:  
Potential hazards and controls: Hazard Managed With Controls  
Supplemental Location: Not reported  
Zip Suffix: Not reported  
Island: Oahu  
Institutional Control: Government - Hawaii Dept. of Health Letter issued

T64  
NE  
1/2-1  
0.933 mi.  
4927 ft.

GENERAL TIRE  
505 WAIKAMALO RD  
HONOLULU, HI 96817

Site 1 of 2 in cluster T

SHWS:  
Organization: Not reported  
Supplemental Location: Oahu  
Environmental Interest: Former General Tire Petroleum Contamination  
Facility Registry Identifier: 110005726884  
Lead Agency: HEER  
Program: State  
Project Manager: Mark Suterfield  
Hazard Priority: NFA  
Potential Hazards And Controls: No Hazard  
Organization: Not reported  
Island: Oahu  
Supplemental Location Text: SDAR Environmental Interest Name: Former General Tire Petroleum Contamination  
HID Number: Not reported

Relative: Higher  
Actual: 10 ft.

HI SHWS  
HI INST CONTROL  
N/A

HI SHWS  
HI SPILLS  
N/A

Map ID  
Direction  
Distance  
Elevation



Map ID  
Direction  
Distance  
Elevation



Site  
EPA ID Number  
EPA ID Number  
Database(s)

Site  
EPA ID Number  
EPA ID Number  
Database(s)

**GENERAL TIRE (Continued)**

**S106817180**

Facility Registry Identifier: 110005726884  
Lead Agency: HEER  
State: No Hazard  
NFA  
Priority: Response Necessary  
Response: Response Complete  
Nature of Contamination: Petroleum contaminated soil detected at concentrations below HDOH EALS  
Use Restrictions: No Hazard Present for Unrestricted Residential Use  
Engineering Control: Not reported  
Institutional Control: Not reported  
Within Designated Area-wide Contamination: No Further Action Letter - Unrestricted Residential Use  
Site Closure Type: 01/28/2004  
Document Number: 2004-033-MS  
Document Subject: NFA for Former General Tire Location  
Project Manager: Mark Sutterfield  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**HI SPILLS:**

Island: Oahu  
Supplemental Loc. Text: Not reported  
Case Number: 20020225-1414  
HID Number: Not reported  
Facility Registry Id: 110005726884  
Lead and Program: HEER EP&R  
ER: No  
Units: General Tire Hydraulic Oil Release  
Substances: Not reported  
Less Or Greater Than: Not reported  
Numerical Quantity: Not reported  
Units: Not reported  
Activity Type: Response  
Activity Lead: Liz Galvez  
Assignment End Date: Not reported  
Result: Refer to ISST  
File Under: Continental Tire

**S65**  
**East**  
**1/2-1**  
**0.938 mi.**  
**4955 ft.**

**HI SHWS** **S106816192**  
**N/A**

**Relative:**  
**Higher**  
**Actual:**  
**3 ft.**

**BHP PIER 29**  
**739 N NIMITZ HWY**  
**HONOLULU, HI 96817**  
**Site 2 of 3 in cluster S**  
SHWS:  
Organization: Not reported  
Supplemental Location: Honolulu Harbor Pier 29  
Island: Oahu  
Environmental Interest: BHP Pier 29  
HID Number: Not reported  
Facility Registry Identifier: 110013780462  
Lead Agency: HEER  
Program: State  
Project Manager: Kelton Otsuka  
Hazard Priority: NFA

**BHP PIER 29 (Continued)**

**S106816192**

Potential Hazards And Controls:  
Organization: Hazard Present  
Island: Not reported  
Supplemental Location Text: Honolulu Harbor Pier 29  
SDAR Environmental Interest Name: BHP Pier 29  
HID Number: Not reported  
Facility Registry Identifier: 110013780462  
Lead Agency: HEER  
Program Name: State  
Potential Hazard And Controls: Hazard Present  
Priority: NFA  
Assessment: Response Necessary  
Response: Response Complete  
Nature of Contamination: Presumed; Unknown  
Use Restrictions: Not reported  
Engineering Control: Controls Required to Manage Contamination  
Description of Restrictions: Not reported  
Institutional Control: Not reported  
Within Designated Area-wide Contamination: Honolulu Harbor Waiwai Unit  
Site Closure Type: Historic NFA - Restricted Use  
Document Date: 06/23/1997  
Document Number: 1997-227-01-BH  
Document Subject: NFA letter for Pier 29  
Project Manager: Kelton Otsuka  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**T66**  
**NE**  
**1/2-1**  
**0.944 mi.**  
**4982 ft.**

**HI SHWS** **S115488666**  
**HI SPILLS** **N/A**

**Relative:**  
**Higher**  
**Actual:**  
**10 ft.**

**1385 COLBURN STREET**  
**1385 COLBURN ST**  
**KAPALAMA, HI 96817**  
**Site 2 of 2 in cluster T**  
SHWS:  
Organization: Not reported  
Supplemental Location: Not reported  
Island: Oahu  
Environmental Interest: 1385 Colburn Street  
HID Number: Not reported  
Facility Registry Identifier: Not reported  
Lead Agency: HEER  
Program: State  
Project Manager: Jordan Nakayama  
Hazard Priority: Low  
Potential Hazards And Controls: Hazard Undetermined  
Organization: Not reported  
Island: Oahu  
Supplemental Location Text: Not reported  
SDAR Environmental Interest Name: 1385 Colburn Street  
HID Number: Not reported  
Facility Registry Identifier: Not reported  
Lead Agency: HEER  
Program Name: State  
Potential Hazard And Controls: Hazard Undetermined  
Priority: Low  
Assessment: Assessment Ongoing  
Response: Not reported  
Nature of Contamination: Not reported



**1385 COLBURN STREET (Continued)**  
 Nature of Residual Contamination: Not reported  
 Use Restrictions: Undetermined  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Areawide Contamination: Not reported  
 Site Closure Type: Not reported  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Jordan Nakayama  
 Project Manager: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814  
 Contact Information:

**HI SPILLS:**  
 Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 20130221-1628  
 HID Number: Not reported  
 Facility Registry Id: Not reported  
 Lead and Program: HEER EP&R  
 ER: None  
 Units: 1385 Colburn Street  
 Substances: Benzol(a)pyrene  
 Less Or Greater Than: Not reported  
 Numerical Quantity: 0  
 Units: Unknown  
 Activity Type: Response  
 Activity Lead: Liz Galvez  
 Assignment End Date: 2013-03-15 00:00:00  
 Result: Refer to SDAR  
 File Under: Continental Title

Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 20130221-1628  
 HID Number: Not reported  
 Facility Registry Id: Not reported  
 Lead and Program: HEER EP&R  
 ER: None  
 Units: 1385 Colburn Street  
 Substances: Lead  
 Less Or Greater Than: Not reported  
 Numerical Quantity: 0  
 Units: Unknown  
 Activity Type: Response  
 Activity Lead: Liz Galvez  
 Assignment End Date: 2013-03-15 00:00:00  
 Result: Refer to SDAR  
 File Under: Continental Title

**ENG CONTROLS:**  
 Supplemental Location Text: Not reported  
 Zip Suffix: Not reported  
 Island: Oahu  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Engineering Control: Engineering Control Required

**INST CONTROL:**  
 Potential hazards and controls: Hazard Managed With Controls  
 Supplemental Location: Not reported  
 Zip Suffix: Not reported  
 Island: Oahu  
 Institutional Control: Government - Hawaii Dept. of Health Letter issued

**HOME DEPOT**  
**421 ALAKAWA ST**  
**HONOLULU, HI 96817**  
**Site 2 of 2 in cluster Q**  
 SHWS:  
 Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 Environmental Interest: Home Depot  
 HID Number: Not reported  
 Facility Registry Identifier: 110013785608  
 Lead Agency: HEER  
 Program: Voluntary Response Program  
 Project Manager: Mark Suterfield  
 Hazard Priority: NFA  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Not reported  
 SDAR Environmental Interest Name: Home Depot  
 HID Number: Not reported  
 Facility Registry Identifier: 110013785608  
 Lead Agency: HEER  
 Program Name: Voluntary Response Program  
 Potential Hazard And Controls: Hazard Managed With Controls  
 Priority: NFA  
 Assessment: Response Necessary  
 Response: Response Complete  
 Nature of Contamination: Found: Methane, BTEX, PAHs, and TPH in soil and groundwater.  
 Use Restrictions: Methane, BTEX, PAHs, and TPH in soil and groundwater.  
 Engineering Control: Controls Required to Manage Contamination  
 Description of Restrictions: Engineering Control Required  
 Prohibit Any Activity That May Disturb the Integrity of the Monitoring System  
 Institutional Control: Government - Hawaii Dept. of Health Letter Issued  
 Within Designated Areawide Contamination: Honolulu Harbor Water Intake  
 Site Closure Type: Letter of Completion - Restricted Use  
 Document Date: 09/03/1999  
 Document Number: Not reported  
 Project Manager: VRP LOC with Conditions  
 Contact Information: Mark Suterfield  
 (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**ENG CONTROLS:**  
 Supplemental Location Text: Not reported  
 Zip Suffix: Not reported  
 Island: Oahu  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Engineering Control: Engineering Control Required

**INST CONTROL:**  
 Potential hazards and controls: Hazard Managed With Controls  
 Supplemental Location: Not reported  
 Zip Suffix: Not reported  
 Island: Oahu  
 Institutional Control: Government - Hawaii Dept. of Health Letter issued

**HOME DEPOT (Continued)** S105887731 S110061245

VCP:  
 Program: Voluntary Response Program  
 Zip Suffix: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu

**S68 East**  
**1/2-1**  
**0.955 mi.**  
**5044 ft.**  
**Relative: Higher**  
**Actual: 3 ft.**

**700 N NIMITZ IDPP RELEASE HONOLULU, HI**  
**Site 3 of 3 in cluster S**  
 SHWS:  
 Organization: Not reported  
 Supplemental Location: TMK 1-1-5-013-003  
 Island: Oahu  
 Environmental Interest: 700 N Nimitz IDPP Release  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Lead Agency: State  
 Project Manager: Steve Mow  
 Hazard Priority: Medium  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Organization: Not reported  
 Island: Oahu

Supplemental Location Text: Not reported  
 Zip Suffix: Not reported  
 Potential Hazards And Controls: Hazard Managed With Controls  
 Engineering Control: Engineering Control Required

INST CONTROL:  
 Potential hazards and controls: Hazard Managed With Controls  
 Supplemental Location: TMK 1-1-5-013-003  
 Zip Suffix: Not reported  
 Island: Oahu  
 Institutional Control: Government - Hawaii Dept. of Health Letter issued

HI SHWS S110061245  
 HI SPILLS N/A  
 HI INST CONTROL

HI SHWS  
 HI SPILLS

**KEEHI SMALL BOAT HARBOR** 69 SE 1/2-1 0.956 mi. 5046 ft. Relative: Higher Actual: 3 ft.

Organization: Not reported  
 Supplemental Location: Keeki Lagoon  
 Island: Oahu  
 Environmental Interest: Honolulu Marine Small Boat Shipyard at Keeki Lagoon  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Lead Agency: State  
 Project Manager: Paul Chong  
 Hazard Priority: Low  
 Potential Hazards And Controls: Hazard Undetermined  
 Organization: Not reported  
 Island: Oahu

Supplemental Location Text: Not reported  
 Zip Suffix: Not reported  
 Potential Hazards And Controls: Hazard Undetermined  
 Engineering Control: Engineering Control Required

INST CONTROL:  
 Potential hazards and controls: Hazard Managed With Controls  
 Supplemental Location: TMK 1-1-5-013-003  
 Zip Suffix: Not reported  
 Island: Oahu  
 Institutional Control: Government - Hawaii Dept. of Health Letter issued

SHWS:  
 Organization: Not reported  
 Supplemental Location: Keeki Lagoon  
 Island: Oahu  
 Environmental Interest: Honolulu Marine Small Boat Shipyard at Keeki Lagoon  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Lead Agency: State  
 Project Manager: Paul Chong  
 Hazard Priority: Low  
 Potential Hazards And Controls: Hazard Undetermined  
 Organization: Not reported  
 Island: Oahu

Supplemental Location Text: Not reported  
 Zip Suffix: Not reported  
 Potential Hazards And Controls: Hazard Undetermined  
 Engineering Control: Engineering Control Required

SHWS:  
 Organization: Not reported  
 Supplemental Location: Keeki Lagoon  
 Island: Oahu  
 Environmental Interest: Honolulu Marine Small Boat Shipyard at Keeki Lagoon  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Lead Agency: State  
 Project Manager: Paul Chong  
 Hazard Priority: Low  
 Potential Hazards And Controls: Hazard Undetermined  
 Organization: Not reported  
 Island: Oahu

SHWS:  
 Organization: Not reported  
 Supplemental Location: Keeki Lagoon  
 Island: Oahu  
 Environmental Interest: Honolulu Marine Small Boat Shipyard at Keeki Lagoon  
 HID Number: Not reported  
 Facility Registry Identifier: HEER  
 Lead Agency: State  
 Project Manager: Paul Chong  
 Hazard Priority: Low  
 Potential Hazards And Controls: Hazard Undetermined  
 Organization: Not reported  
 Island: Oahu

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

**KEEHI SMALL BOAT HARBOR (Continued)**

Nature of Residual Contamination: Not reported  
Use Restrictions: Undetermined  
Engineering Control: Not reported  
Description of Restrictions: Not reported  
Institutional Control: Not reported  
Within Designated Area-wide Contamination: Not reported  
Site Closure Type: Not reported  
Document Number: Not reported  
Document Subject: Not reported  
Project Manager: Paul Chong  
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**HI SPILLS:**

Island: Oahu  
Supplemental Loc. Text: Not reported  
Case Number: 20060720-1230  
HID Number: Not reported  
Facility Registry Id: 110013769396  
Lead and Program: HEER EP&R  
ER: Not reported  
Units: None  
Substances: Boat Sink - Gasoline Release  
Less Or Greater Than: Gasoline, Unleaded  
Numerical Quantity: 0.5  
Units: Gallons  
Activity Type: Response  
Activity Lead: Liz Galvez  
Assignment End Date: Not reported  
Result: Not reported  
File Under: State of Hawaii, Department of Transportation, Harbors Division

Island: Oahu  
Supplemental Loc. Text: Not reported  
Case Number: 19900629  
HID Number: Not reported  
Facility Registry Id: 110013769396  
Lead and Program: HEER EP&R  
ER: Not reported  
Units: KEEHI SMALL BOAT HARBOR, SAND ISLAND ACCESS RD. 4  
Substances: PROPANE  
Less Or Greater Than: Not reported  
Numerical Quantity: Not reported  
Units: Not reported  
Activity Type: Response  
Activity Lead: Not reported  
Assignment End Date: Not reported  
Result: SOSCS NFA  
File Under: State of Hawaii, Department of Transportation, Harbors Division

1006819167

U70  
ENE  
1/2-1  
0.984 mi.  
5198 ft.

Relative:  
Higher

Actual:  
3 ft.

BHP GASCO  
432 PACIFIC STREET  
HONOLULU, HI 96817  
Site 1 of 4 in cluster U

Manufactured Gas Plants:

Alternate Name: HONOLULU GAS CO LTD. OPERATED FROM 1905-1974

EDR MGP  
1008409005  
N/A

**CONOCOPHILLIPS CO HONOLULU TERMINAL**

U71  
ENE  
1/2-1  
0.986 mi.  
5205 ft.

Relative:  
Higher

Actual:  
3 ft.

CONOCOPHILLIPS CO HONOLULU TERMINAL  
411 PACIFIC STREET  
HONOLULU, HI 96817  
Site 2 of 4 in cluster U

RCRA NonGen / NLR:

Date form received by agency: 02/16/1994  
UNOCAL 76 HONOLULU LRNG CTR

Facility name: UNION OIL TERMINAL

Site name: 411 PACIFIC ST

Facility address: HONOLULU, HI 968170000

EPA ID: HD981652896

Mailing address: HONOLULU, HI 968090000

Contact: PATRICK J IONA

Contact address: Not reported

Contact country: Not reported

Contact telephone: (808) 522-7609

Contact email: Not reported

EPA Region: 09

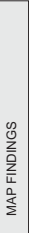
Land type: Other land type

Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

RCRA NonGen / NLR  
FINDS  
HI SHWS  
HI UST  
HI SPILLS  
HI VCP  
HI Financial Assurance

1000167494  
HID981652696



Site

Database(s)



Site

Database(s)

**CONOCOPHILLIPS CO HONOLULU TERMINAL (Continued)**

1000167494

AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

**GASOLINE AND DIESEL PRODUCERS**

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

**STATE MASTER**

**HAZARDOUS WASTE BIENNIAL REPORTER**

CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) is the Superfund database that is used to support management in all phases of the Superfund program. The system contains information on all aspects of hazardous waste sites, including an inventory of sites, planned and actual site activities, and financial information.

ICIS (Integrated Compliance Information System) is the integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include: Incident Tracking, Compliance Assistance, and Compliance Monitoring.

**SPCC**

**CONOCOPHILLIPS CO HONOLULU TERMINAL (Continued)**

1000167494

Handler Activities Summary:  
 U.S. importer of hazardous waste: No  
 Mixed waste (haz. and radioactive): No  
 Recycler of hazardous waste: No  
 Transporter of hazardous waste: No  
 Treater, storer or disposer of HW: No  
 Underground injection activity: No  
 On-site burner exemption: No  
 Furnace exemption: No  
 Used oil fuel burner: No  
 Used oil processor: No  
 Used oil refiner: No  
 Used oil fuel marketer to burner: No  
 Used oil Specification marketer: No  
 Used oil transfer facility: No  
 Used oil transporter: No

Historical Generators:  
 Date form received by agency: 08/02/1983  
 Site name: UNOCAL 76 HONOLULU LRNG CTR  
 Classification: Not a generator, verified

Violation Status: No violations found

Evaluation Action Summary:  
 Evaluation date: 07/09/1986  
 Area of violation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
 Date achieved compliance: Not reported  
 Evaluation lead agency: State

**FINDS:**

Registry ID: 110009359926  
 Environmental Interest/Information System  
 RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**STATE MASTER**

**CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY**

Registry ID: 110000495848

Environmental Interest/Information System  
 AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

Site

Database(s)

EDR ID Number  
EPA ID Number

CONOCOPHILLIPS CO HONOLULU TERMINAL (Continued)

1000167494

CONOCOPHILLIPS CO HONOLULU TERMINAL (Continued)

1000167494

Registry ID: 110046154040  
Environmental Interest/Information System  
STATE MASTER

Permanently Out of Use  
Date Closed: 03/07/1997  
Tank Capacity: 550  
Substance: Used Oil

SHWS:  
Organization: Not reported  
Supplemental Location: Not reported  
Island: Oahu  
Environmental Interest: TOSCO Corporation-Honolulu Terminal #0282  
HID Number: Not reported  
Facility Registry Identifier: 110000495848  
Lead Agency: HEER  
Program: Voluntary Response Program  
Project Manager: Steve Mow  
Hazard Priority: High  
Potential Hazards And Controls: Hazard Present  
Organization: Oahu  
Island: Not reported  
Supplemental Location Text: TOSCO Corporation-Honolulu Terminal #0282  
SDAR Environmental Interest Name: Not reported  
HID Number: Not reported  
Facility Registry Identifier: 110000495848  
Lead Agency: HEER  
Program Name: Voluntary Response Program  
Potential Hazard And Controls: Hazard Present  
Priority: High  
Assessment: Response Necessary  
Response: Response Ongoing  
Nature of Contamination: Found.: Petroleum in soil and groundwater  
Use Restrictions: Not reported  
Engineering Control: Controls Required to Manage Contamination  
Description of Restrictions: Not reported  
Institutional Control: Prohibit Any Activity That May Disturb the Integrity of the Capping or Monitoring System  
Site Closure Type: Honolulu Harbor Iwilei Unit  
Document Date: Not reported  
Document Number: Not reported  
Project Manager: Not reported  
Contact Information: Steve Mow  
(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

UST:  
Facility ID: 9-100108  
Owner: Tosco Marketing Company  
Owner Address: P. O. Box 25376  
Owner City, St, Zip: Honolulu, 96817 96817  
Latitude: Not reported  
Longitude: Not reported  
Horizontal Reference Datum: NAD83  
Tank ID: R-4-1  
Date Installed: 04/15/1982

HI SPILLS:

Island: Oahu  
Supplemental Loc. Text: Not reported  
Case Number: 19910207-1  
HID Number: Not reported  
Facility Registry Id: 110000495848  
Lead and Program: HEER EP&R  
ER: Not reported  
Units: UNOCAL HON Meter Malfunction  
Substances: OIL, DIESEL  
Less Or Greater Than: Not reported  
Numerical Quantity: 40  
Units: Gallons  
Activity Type: Response  
Activity Lead: Not reported  
Assignment End Date: Not reported  
Result: SOS/NFA  
File Under: Phillips Petroleum Company

Island: Oahu  
Supplemental Loc. Text: Not reported  
Case Number: 19910221-1  
HID Number: Not reported  
Facility Registry Id: 110000495848  
Lead and Program: HEER EP&R  
ER: Not reported  
Units: UNOCAL HON Valve Malfunction  
Substances: Gasoline  
Less Or Greater Than: Not reported  
Numerical Quantity: 200  
Units: Gallons  
Activity Type: Response  
Activity Lead: Not reported  
Assignment End Date: Not reported  
Result: SOS/NFA  
File Under: Phillips Petroleum Company

Island: Oahu  
Supplemental Loc. Text: Not reported  
Case Number: 19970714-1232  
HID Number: Not reported  
Facility Registry Id: 110000495848  
Lead and Program: HEER EP&R  
ER: No  
Units: Gobble-Diddlely Tanker Truck Overfill at Loadrack #1  
Substances: Diesel Fuel #2  
Less Or Greater Than: Not reported  
Numerical Quantity: 300  
Units: Gallons  
Activity Type: Response  
Activity Lead: Liz Galvez  
Assignment End Date: Not reported



Result:

File Under:

SOSC NFA  
Phillips Petroleum Company

Island:  
Oahu

Supplemental Loc. Text:  
19971110-0947

Case Number:  
Not reported

HID Number:  
110000495848

Facility Registry Id:  
HEER EP&R

Lead and Program:  
No

ER:  
TOSCO Pinhole Pipeline Leak

Substances:  
Gasoline, Unleaded

Less Or Greater Than:  
Not reported

Numerical Quantity:  
20

Units:  
Gallons

Activity Type:  
Response

Activity Lead:  
Terry Corpus

Assignment End Date:  
Not reported

Result:  
SOSC NFA

File Under:  
Phillips Petroleum Company

Island:  
Oahu

Supplemental Loc. Text:  
Not reported

Case Number:  
20101116-1943

HID Number:  
Not reported

Facility Registry Id:  
110000495848

Lead and Program:  
HEER EP&R

ER:  
None

Substances:  
Diesel Fuel Release

Less Or Greater Than:  
Not reported

Numerical Quantity:  
0.25

Units:  
Gallons

Activity Type:  
Response

Activity Lead:  
Jiz Galvez

Assignment End Date:  
Not reported

Result:  
Phillips Petroleum Company

File Under:  
Phillips Petroleum Company

VCP:  
Program:  
Voluntary Response Program

Zip Suffix:  
Not reported

Supplemental Location:  
Oahu

Alt Facility ID:  
9-100108

Tank Id:  
R-4-1

Tank Status:  
Permanently Out of Use

Other:  
Other

Expiration Date:  
Not reported

Alt Facility ID:  
9-100108

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

1000167494

CONOCOPHILLIPS CO HONOLULU TERMINAL (Continued)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

1000167494

CONOCOPHILLIPS CO HONOLULU TERMINAL (Continued)

V72  
East  
1/2-1  
0.988 mi.  
5216 ft.

Relative:  
Higher

Actual:  
3 ft.

RCPA-CESQG:  
Date form received by agency: 04/07/2008

Facility name:  
MOANA PAA KAI

Facility address:  
705 N NIMITZ HWY  
PIER 21  
HONOLULU, HI 96817

EPA ID:  
HID982411357

Mailing address:  
PO BOX 3288  
HONOLULU, HI 96801 3288

Contact:  
NATHAN L KAPULE  
PO BOX 3288  
HONOLULU, HI 96801 3288

Contact address:  
HONOLULU, HI 96801 3288

Contact country:  
US

Contact telephone:  
808-543-9398

Contact email:  
NKAPULE@HTBYB.COM

EPA Region:  
09

Land type:  
Private

Classification:  
Conditionally Exempt Small Quantity Generator

Description:  
Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:  
Owner/operator name:  
HAWAII TUG AND BARGE YOUNG BROTHERS

Owner/operator address:  
Not reported

Owner/operator country:  
Not reported

Owner/operator telephone:  
Not reported

Legal status:  
Private

Owner/Operator Type:  
Operator

Owner/Op start date:  
01/01/1950

Owner/Op end date:  
Not reported

Owner/operator name:  
STATE OF HAWAII

Owner/operator address:  
79 S NIMITZ HWY

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

EDR ID Number  
EPA ID Number

Database(s)

**MOANA PAA KAI (Continued)**

1000146639

**MOANA PAA KAI (Continued)**

1000146639

HONOLULU, HI 96813

SPENT SOLVENT MIXTURES.

Owner/operator country: US  
Owner/operator telephone: Not reported  
Legal status: State  
Owner/Operator Type: Owner  
Owner/Op start date: 01/01/1950  
Owner/Op end date: Not reported

Facility Has Received Notices of Violations: Not reported  
Regulation violated: Generators - General  
Area of violation: 01/23/2008  
Date violation determined: 06/09/2008  
Date achieved compliance: State  
Violation lead agency: State  
Enforcement action: Not reported  
Enforcement action date: Not reported  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: Not reported  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Handler Activities Summary:  
U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous wastes: No  
Transporter of hazardous wastes: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
Used oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Regulation violated: Not reported  
Area of violation: Used Oil - Generators  
Date violation determined: 01/23/2008  
Date achieved compliance: 06/09/2008  
Violation lead agency: State  
Enforcement action: Not reported  
Enforcement action date: Not reported  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: Not reported  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Historical Generators:

Date form received by agency: 02/07/1989  
Site name: HAWAIIAN TUG & BARGE CORP  
Classification: Not a generator, verified

Date form received by agency: 03/25/1988  
Site name: HAWAIIAN TUG & BARGE CORP  
Classification: Small Quantity Generator

Hazardous Waste Summary:

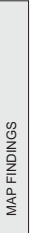
Waste code: D001  
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D008  
Waste name: LEAD

Waste code: F002  
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, AND ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE. ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING BEFORE USE A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

Regulation violated: S - 279.20-24  
Area of violation: Used Oil - Generators  
Date violation determined: 07/12/2001  
Date achieved compliance: 08/14/2001  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 07/12/2001  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported





MOANA PAA KAI (Continued)

1000146639

1000146639

1000146639

Within Designated Area-wide Contamination: Honolulu Harbor Iwilei Unit  
 Site Closure Type: Not reported  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Anna Fernandez  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:  
 Island: Oahu  
 Supplemental Loc. Text: Honolulu Harbor Pier 24-28  
 Case Number: 19901207-2  
 HID Number: Not reported  
 Facility Registry Id: 110005284110  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 Units: YOUNG BROTHERS, HARBOR CHANNEL, HONOLULU HARBOR  
 Substances: Not reported  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Not reported  
 Assignment End Date: Not reported  
 Result: SOSOC NFA  
 File Under: Young Brothers, Ltd.

Response: Not reported  
 Activity Lead: Not reported  
 Assignment End Date: SOSOC NFA  
 Result: Young Brothers, Ltd.

Island: Oahu  
 Supplemental Loc. Text: Honolulu Harbor Pier 24-28  
 Case Number: 19941201  
 HID Number: Not reported  
 Facility Registry Id: 110005284110  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 Units: Pier 26, Young Brothers oil  
 Substances: Not reported  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Chris Takeno  
 Assignment End Date: Not reported  
 Result: SOSOC NFA  
 File Under: Young Brothers, Ltd.

Island: Oahu  
 Supplemental Loc. Text: Honolulu Harbor Pier 24-28  
 Case Number: 19921126  
 HID Number: Not reported  
 Facility Registry Id: 110005284110  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 Units: Young Brothers Terminal, Pier 26, Honolulu Harbor  
 Substances: Methane Gas  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Bill Peery  
 Assignment End Date: Not reported  
 Result: Not reported  
 File Under: Young Brothers, Ltd.

Click [this hyperlink](#) while viewing on your computer to access 5 additional HI SPILLS records in the EDR Site Report.

Click [this hyperlink](#) while viewing on your computer to access 5 additional HI SPILLS records in the EDR Site Report.

Click [this hyperlink](#) while viewing on your computer to access 5 additional HI SPILLS records in the EDR Site Report.

Database(s)

Database(s)

Database(s)

Database(s)

HI SHWS

HI SHWS

HI SHWS

HI SHWS

S110169069

S110169069

S110169069

S110169069

N/A

N/A

N/A

N/A

HI SPILLS

HI SPILLS

HI SPILLS

HI SPILLS

356 PACIFIC STREET BWS TRENCHING SHEEN

356 PACIFIC STREET

356 PACIFIC STREET

356 PACIFIC STREET

HONOLULU, HI

HONOLULU, HI

HONOLULU, HI

HONOLULU, HI

Site 3 of 4 in cluster U

Site 3 of 4 in cluster U

Site 3 of 4 in cluster U

Site 3 of 4 in cluster U

SHWS:

SHWS:

SHWS:

SHWS:

Organization:

Organization:

Organization:

Organization:

Supplemental Location:

Supplemental Location:

Supplemental Location:

Supplemental Location:

Environmental Interest:

Environmental Interest:

Environmental Interest:

Environmental Interest:

HID Number:

HID Number:

HID Number:

HID Number:

Facility Registry Identifier:

Facility Registry Identifier:

Facility Registry Identifier:

Facility Registry Identifier:

Not reported

Not reported

Not reported

Not reported

Oahu

Oahu

Oahu

Oahu

Chevron Tanker Truck Loading Rack (TTLR)

Chevron Tanker Truck Loading Rack (TTLR)

Chevron Tanker Truck Loading Rack (TTLR)

Chevron Tanker Truck Loading Rack (TTLR)

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

Not reported

**356 PACIFIC STREET BWS TRENCHING SHEEN (Continued)** S110169069 S110169069

Lead Agency: HEER  
 Program: State  
 Project Manager: Jordan Nakayama  
 Hazard Priority: High  
 Potential Hazards And Controls: Hazard Undetermined  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Not reported  
 SDAR Environmental Interest Name: Chevron Tanker Truck Loading Rack (TTLR)  
 HID Number: Not reported  
 Facility Registry Identifier: Not reported  
 HEER  
 Program Name: State  
 Potential Hazard And Controls: Hazard Undetermined  
 Priority: High  
 Assessment: Assessment Ongoing  
 Response: Not reported  
 Nature of Contamination: Not reported  
 Nature of Residual Contamination: Not reported  
 Use Restrictions: Undetermined  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Areawide Contamination: Honolulu Harbor Iwilei Unit  
 Site Closure Type: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: Jordan Nakayama  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Substances: 356 Pacific Street BWS Trenching Sheen  
 Less Or Greater Than: Oily Soil  
 Numerical Quantity: Not reported  
 Units: Sheen  
 Activity Type: Response  
 Activity Lead: Paul Chong  
 Assignment End Date: 2008-09-10 00:00:00  
 Result: Refer to SDAR  
 File Under: City and County of Honolulu, Board of Water Supply

**HAWAIIAN FLOUR MILL**  
**703 N NIMITZ HWY**  
**HONOLULU, HI 96808**  
**Site 2 of 2 in cluster V**  
**SHWS:**  
 Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 Environmental Interest: Hawaiian Flour Mill  
 HID Number: Not reported  
 Facility Registry Identifier: 110013791469  
 Lead Agency: HEER  
 Program: State  
 Project Manager: Sieve Mow  
 Hazard Priority: Medium  
 Potential Hazards And Controls: Hazard Present  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Not reported  
 SDAR Environmental Interest Name: Hawaiian Flour Mill  
 HID Number: Not reported  
 Facility Registry Identifier: 110013791469  
 Lead Agency: HEER  
 Program Name: State  
 Potential Hazard And Controls: Hazard Present  
 Priority: Medium  
 Assessment: Response Necessary  
 Response: Response Ongoing  
 Nature of Contamination: Found: Subsurface petroleum contamination in soil and groundwater.  
 Use Restrictions: Controls Required to Manage Contamination  
 Engineering Control: Not reported  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Areawide Contamination: Honolulu Harbor Iwilei Unit  
 Site Closure Type: Not reported  
 Document Date: Not reported  
 Document Number: Not reported  
 Document Subject: Not reported  
 Project Manager: State Mow  
 Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

**V74**  
**East**  
**1/2-1**  
**0.992 mi.**  
**5238 ft.**  
**Relative:**  
**Higher**  
**Actual:**  
**3 ft.**

**HI SPILLS:**  
 Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 20080909-1450  
 HID Number: Not reported  
 Facility Registry Id: Not reported  
 Lead and Program: HEER EP&R  
 ER: HEER EP&R  
 Site Visit  
 Units: 356 Pacific Street BWS Trenching Sheen  
 Substances: Oily Soil  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Sheen  
 Activity Type: Refer to EP&R  
 Activity Lead: Anna Fernandez  
 Assignment End Date: Not reported  
 Result: Refer to IDPP  
 File Under: City and County of Honolulu, Board of Water Supply



**U75**  
**ENE**  
 1/2-1  
 0.993 mi.  
 5243 ft.  
**Relative:**  
**Higher**  
**Actual:**  
 3 ft.

**BREWER ENVIRONMENTAL INDUSTRIES-PACIFIC STREET**  
 311 PACIFIC ST  
 HONOLULU, HI 96817  
**Site 4 of 4 in cluster U**

SHWS:  
 Organization: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu  
 Environmental Interest: Brewer Environmental Industries-Pacific Street  
 HID Number: HID059472357  
 Facility Registry Identifier: 110000903210  
 HEER  
 Lead Agency: Voluntary Response Program  
 Project Manager: Jordan Nakayama  
 Hazard Priority: High  
 Potential Hazards And Controls: Hazard Present  
 Organization: Not reported  
 Island: Oahu  
 Supplemental Location Text: Not reported  
 SDCAR Environmental Interest Name: Brewer Environmental Industries-Pacific Street  
 HID Number: HID059472357  
 Facility Registry Identifier: 110000903210  
 HEER  
 Lead Agency: Voluntary Response Program  
 Program Name: Hazard Present  
 Priority: High  
 Assessment: Assessment Ongoing  
 Response: Not reported  
 Nature of Contamination: Found: Petroleum & PCS  
 Use Restrictions: Not reported  
 Engineering Control: Controls Required to Manage Contamination  
 Description of Restrictions: Not reported  
 Institutional Control: Not reported  
 Within Designated Area-wide Contamination: Honolulu Harbor Iwilei Unit  
 Site Closure Type: Not reported  
 Document Number: Not reported  
 Document Subject: Jordan Nakayama  
 Project Manager: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814  
 Contact Information:

HI SPILLS:  
 Island: Oahu  
 Supplemental Loc. Text: SW corner of property/pipes from Conoco-Phillips  
 Case Number: 20110824-1130  
 HID Number: HID059472357  
 Facility Registry Id: 110000903210  
 Lead and Program: HEER EP&R  
 ER: None  
 Units: BEI - #7 pipeline release  
 Substances: Not reported  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Liz Galvez

Map ID Direction Distance Elevation MAP FINDINGS MAP FINDINGS EDR ID Number EPA ID Number Database(s) Site

**BREWER ENVIRONMENTAL INDUSTRIES-PACIFIC STREET (Continued)**  
 1000436248  
 N/A  
 HI SHWS  
 HI SPILLS  
 HI VCP

Assignment End Date: 2011-08-25 00:00:00  
 Referred to: SDAR  
 File Under: Brewer Environmental Industries Hawaii

Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 19920407-1  
 HID Number: HID059472357  
 Facility Registry Id: 110000903210  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 Units: Brewer 25 Pound Chlorine Leak  
 Substances: Chlorine  
 Less Or Greater Than: Not reported  
 Numerical Quantity: 25  
 Units: Pounds  
 Activity Type: Response  
 Activity Lead: Not reported  
 Assignment End Date: Not reported  
 Result: SOSOC NFA  
 File Under: Brewer Environmental Industries Hawaii

Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 19851031  
 HID Number: HID059472357  
 Facility Registry Id: 110000903210  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 Units: Brewer 150 Pound Chlorine Release  
 Substances: Chlorine  
 Less Or Greater Than: Not reported  
 Numerical Quantity: 150  
 Units: Pounds  
 Activity Type: Response  
 Activity Lead: Bill Peery  
 Assignment End Date: Not reported  
 Result: SOSOC NFA  
 File Under: Brewer Environmental Industries Hawaii

Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 20050105-1326  
 HID Number: HID059472357  
 Facility Registry Id: 110000903210  
 Lead and Program: HEER EP&R  
 ER: No  
 Units: Brewer Environmental Boring Sheen  
 Substances: Oil  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Unknown  
 Units: Unknown  
 Activity Type: Response  
 Activity Lead: Mike Cripps  
 Assignment End Date: 2005-01-07 00:00:00  
 Result: Refer to SDAR  
 File Under: Brewer Environmental Industries Hawaii

EDR ID Number: 1000436248  
 EPA ID Number: 10000569812

EDR ID Number: 1000906758  
 EPA ID Number: 1000506758

**BREWER ENVIRONMENTAL INDUSTRIES-PACIFIC STREET (Continued)**

**POLYNESIAN HOSPITALITY (Continued)**

Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 19881104  
 HID Number: HD059472357  
 Facility Registry Id: 110000903210  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 Units: Brewer Offices, Indoor Air Pollution  
 Substances: Hydrogen Sulfide  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Not reported  
 Assignment End Date: Not reported  
 Result: SOSO NFA  
 File Under: Brewer Environmental Industries Hawaii

Owner/Operator Summary:  
 Owner/operator name: PHT INC DBA POLYNESIAN HOSPITALITY  
 Owner/operator address: 330 PACIFIC ST HONOLULU, HI 96817  
 Owner/operator country: Not reported  
 Owner/operator telephone: (808) 593-2885  
 Legal status: Private  
 Owner/Operator Type: Owner  
 Owner/Op start date: Not reported  
 Owner/Op end date: Not reported

Click this hyperlink while viewing on your computer to access 1 additional HI SPILLS record(s) in the EDR Site Report.

Handler Activities Summary:  
 U.S. importer of hazardous waste: No  
 Mixed waste (haz. and radioactive): No  
 Recycler of hazardous waste: No  
 Transporter of hazardous waste: No  
 Treater, storer or disposer of HW: No  
 Underground injection activity: No  
 On-site burner exemption: No  
 Furnace exemption: No  
 Used oil fuel burner: No  
 Used oil processor: No  
 Used oil refiner: No  
 Used oil fuel marketer to burner: No  
 Used oil Specification marketer: No  
 Used oil transfer facility: No  
 Used oil transporter: No

VCP:  
 Program: Voluntary Response Program  
 Zip Suffix: Not reported  
 Supplemental Location: Not reported  
 Island: Oahu

Violation Status: No violations found

RCRA-CESQG: Date form received by agency: 08/16/1994  
 Facility name: POLYNESIAN HOSPITALITY  
 Facility address: 330 PACIFIC ST HONOLULU, HI 96817  
 EPA ID: HI0000589812  
 Contact: GAYLORD KOLT  
 Contact address: 330 PACIFIC ST HONOLULU, HI 96817  
 Contact country: US  
 Contact telephone: (808) 526-3565  
 Contact email: Not reported  
 EPA Region: 09  
 Land type: Private  
 Classification: Conditionally Exempt Small Quantity Generator  
 Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time; 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less

Environmental Interest/Information System  
 RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

RCRA-CESQG: 1000906758  
 FINDS: HI SHWS  
 HI LUST  
 HI LUST  
 HI SPILLS  
 HI Financial Assurance

Evaluation Action Summary:  
 Evaluation date: 04/10/1996  
 Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
 Area of violation: Not reported  
 Date achieved compliance: Not reported  
 Evaluation lead agency: State

76  
 ENE  
 1/2-1  
 0.996 mi.  
 5258 ft.  
 Relative: Higher  
 Actual: 3 ft.

Registry ID: 110005722316

Map ID  
Direction  
Distance  
Elevation

Site

MAP FINDINGS

EDR ID Number  
EPA ID Number

Database(s)

Map ID  
Direction  
Distance  
Elevation

Site

MAP FINDINGS

EDR ID Number  
EPA ID Number

Database(s)

**POLYNESIAN HOSPITALITY (Continued)**

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

**STATE MASTER**

**SHWS:**

Organization: Not reported  
Supplemental Location: Not reported  
Island: Oahu  
Environmental Interest: Polynesian Hospitality  
HID Number: Not reported  
Facility Registry Identifier: 11000572316  
Lead Agency: HEER  
State: Anna Fernandez  
Program: Low  
Hazard Priority: Hazard Undetermined  
Potential Hazards And Controls: Not reported  
Organization: Oahu  
Island: Not reported  
Supplemental Location Text: Polynesian Hospitality  
SDAR Environmental Interest Name: Not reported  
HID Number: 11000572316  
Facility Registry Identifier: HEER  
Lead Agency: State  
Program Name: Hazard Undetermined  
Potential Hazard And Controls: Low  
Priority: Low  
Assessment: Response Necessary  
Response: Response Ongoing  
Nature of Contamination: Found: Subsurface petroleum contamination in soil and groundwater  
Nature of Residual Contamination: Not reported  
Use Restrictions: Undetermined  
Engineering Control: Not reported  
Description of Restrictions: Not reported  
Institutional Control: Honolulu Harbor Iwilei Unit  
Site Closure Type: Not reported  
Document Date: Not reported  
Document Number: Not reported  
Document Subject: Anna Fernandez  
Project Manager: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814  
Contact Information:

**LUST:**  
Facility ID: 9-101379  
Facility Status: Active Remediation  
Facility Status Date: 05/14/1995  
Release ID: 910046  
Project Officer: Josh Nagashima

**POLYNESIAN HOSPITALITY (Continued)**

UST:  
Facility ID: 9-101379  
Owner: POLYNESIAN HOSPITALITY  
Owner Address: 330 PACIFIC ST  
Owner City, St, Zip: Honolulu, 96817 96817  
Latitude: 21.3146  
Longitude: -157.871  
Horizontal Reference Datum: NAD83

Tank ID: 5  
Date Installed: 01/01/1995  
Tank Status: Currently in Use  
Date Closed: Not reported  
Tank Capacity: 10000  
Substance: Diesel

Tank ID: 6  
Date Installed: 01/01/1995  
Tank Status: Currently in Use  
Date Closed: Not reported  
Tank Capacity: 1000  
Substance: Diesel

Tank ID: R-1  
Date Installed: 12/30/1967  
Tank Status: Permanently Out of Use  
Date Closed: 08/03/1994  
Tank Capacity: 2000  
Substance: Gasoline

Tank ID: R-2  
Date Installed: 12/31/1967  
Tank Status: Permanently Out of Use  
Date Closed: 08/03/1994  
Tank Capacity: 5000  
Substance: Diesel

Tank ID: R-3  
Date Installed: 12/30/1967  
Tank Status: Permanently Out of Use  
Date Closed: 08/03/1994  
Tank Capacity: 5000  
Substance: Diesel

Tank ID: R-4  
Date Installed: Not reported  
Tank Status: Permanently Out of Use  
Date Closed: 03/19/1991  
Tank Capacity: 1000  
Substance: Used Oil

**POLYNESIAN HOSPITALITY (Continued)**

1000906758

1000906758

POLYNESIAN HOSPITALITY (Continued) 1000906758 1000906758

HI SPILLS:  
 Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 19941201-2  
 HID Number: Not reported  
 Facility Registry Id: 110005722316  
 Lead and Program: HEER EP&R  
 ER: Not reported  
 Substances: Polynesian Hospitality - Abutting City Mill  
 Gasoline  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Mike Cripps  
 Assignment End Date: Not reported  
 Result: SOSG NFA  
 File Under: Polynesian Hospitality

Island: Oahu  
 Supplemental Loc. Text: Not reported  
 Case Number: 20080104-0912  
 HID Number: Not reported  
 Facility Registry Id: 110005722316  
 Lead and Program: HEER EP&R  
 ER: None  
 Substances: Polynesian Hospitality  
 Less Or Greater Than: Not reported  
 Numerical Quantity: Not reported  
 Units: Not reported  
 Activity Type: Response  
 Activity Lead: Curtis Martin  
 Assignment End Date: Not reported  
 Result: Not reported  
 File Under: Polynesian Hospitality

HI Financial Assurance:  
 Alt Facility ID: 9-101379  
 Tank Id: R-2  
 Tank Status: Permanently Out of Use  
 FRTYPE: Other  
 Expiration Date: Not reported  
 Alt Facility ID: 9-101379  
 Tank Id: R-1  
 Tank Status: Permanently Out of Use  
 FRTYPE: Other  
 Expiration Date: Not reported  
 Alt Facility ID: 9-101379  
 Tank Id: 5  
 Tank Status: Currently in Use  
 FRTYPE: Other  
 Expiration Date: Not reported

POLYNESIAN HOSPITALITY (Continued) 1000906758 1000906758

Alt Facility ID: 9-101379  
 Tank Id: R-3  
 Tank Status: Permanently Out of Use  
 FRTYPE: Other  
 Expiration Date: Not reported  
 Alt Facility ID: 9-101379  
 Tank Id: 6  
 Tank Status: Currently in Use  
 FRTYPE: Other  
 Expiration Date: Not reported  
 Alt Facility ID: 9-101379  
 Tank Id: R-4  
 Tank Status: Permanently Out of Use  
 FRTYPE: Other  
 Expiration Date: Not reported

Alt Facility ID: 9-101379  
 Tank Id: R-4  
 Tank Status: Permanently Out of Use  
 FRTYPE: Insurance  
 Expiration Date: 01/01/2015  
 Alt Facility ID: 9-101379  
 Tank Id: R-3  
 Tank Status: Permanently Out of Use  
 FRTYPE: Insurance  
 Expiration Date: 01/01/2015  
 Alt Facility ID: 9-101379  
 Tank Id: 6  
 Tank Status: Currently in Use  
 FRTYPE: Insurance  
 Expiration Date: 01/01/2015  
 Alt Facility ID: 9-101379  
 Tank Id: 5  
 Tank Status: Currently in Use  
 FRTYPE: Insurance  
 Expiration Date: 01/01/2015

Alt Facility ID: 9-101379  
 Tank Id: R-2  
 Tank Status: Permanently Out of Use  
 FRTYPE: Insurance  
 Expiration Date: 01/01/2015  
 Alt Facility ID: 9-101379  
 Tank Id: R-1  
 Tank Status: Permanently Out of Use  
 FRTYPE: Insurance  
 Expiration Date: 01/01/2015

# 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.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

## STANDARD ENVIRONMENTAL RECORDS

### Federal NPL site list

**NPL - National Priority List**  
 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: 09/29/2014  
 Date Data Arrived at EDR: 10/09/2014  
 Date Made Active in Reports: 11/17/2014  
 Number of Days to Update: 40  
 Source: EPA  
 Telephone: N/A  
 Last EDR Contact: 10/08/2014  
 Next Scheduled EDR Contact: 01/19/2015  
 Data Release Frequency: Quarterly

### NPL Site Boundaries

#### Sources:

- EPA's Environmental Photographic Interpretation Center (EPIC)  
 Telephone: 202-564-7333
- EPA Region 6  
 Telephone: 214-655-6659
- EPA Region 7  
 Telephone: 913-551-7247
- EPA Region 8  
 Telephone: 303-312-6774
- EPA Region 9  
 Telephone: 415-947-4246
- EPA Region 10  
 Telephone: 206-553-8665

### Proposed NPL - Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 09/29/2014  
 Date Data Arrived at EDR: 10/09/2014  
 Date Made Active in Reports: 11/17/2014  
 Number of Days to Update: 40  
 Source: EPA  
 Telephone: N/A  
 Last EDR Contact: 10/08/2014  
 Next Scheduled EDR Contact: 01/19/2015  
 Data Release Frequency: Quarterly

### NPL LIENS - Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by 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 received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991  
 Date Data Arrived at EDR: 02/02/1994  
 Date Made Active in Reports: 03/30/1994  
 Number of Days to Update: 56  
 Source: EPA  
 Telephone: 202-564-4267  
 Last EDR Contact: 08/15/2011  
 Next Scheduled EDR Contact: 11/28/2011  
 Data Release Frequency: No Update Planned

City	EDR ID	Site Name	Site Address	Zip	Databases
HONOLULU	S108008549	KALANI HART, HOKULAEA STREET, HONO	HART ST & KALANI ST & HOKULAEA	96819	HI SHWS, HI ENG CONTROLS, HI INST CONTROL
HONOLULU	1006819301	KEHI LAGOON CANOE FACILITY, INORE	HOOKEE PL	96819	HI SHWS, HI SPILLS
HONOLULU	S115488703	KAUHI AND KALAEPA INTERSECTION	KALAEPA DR AND KAUHI ST	96817	HI SHWS, HI SPILLS, HI ENG CONTROLS, HI INST CONTROL
HONOLULU	S117004706	FORMER KAPALAMA MILITARY RESERVATI	WILSON BLVD AND KALAEPA HWY	96817	HI SHWS, HI SPILLS, HI INST CONTROL
HONOLULU	S106818311	AMITZ HIGHWAY WATER IMPROVEMENT P	N NIMITZ HWY	96819	HI SHWS, HI SPILLS, HI INST CONTROL
HONOLULU	S108008785	CITIZENS ENERGY SERVICES PIER 3B	NIMITZ HWY	96819	HI SHWS, HI SPILLS, HI INST CONTROL
HONOLULU	1016971697	SAND ISLAND OFF-HIGHWAY VEHICLE FA	1545 SAND ISLAND PARKWAY, ADA	96819	HI SHWS, HI SPILLS, HI INST CONTROL
HONOLULU	1006820220	BURN BURIED DRUM SITE	SAND ISLAND ACCESS RD	96819	HI SHWS, HI SPILLS, HI INST CONTROL
HONOLULU	100378950	USCG BASE HONOLULU	SAND ISLAND ACCESS ROAD	96819	HI SHWS, HI SPILLS, HI INST CONTROL
HONOLULU	S108859526	KOKUA KAUHI VALLEY ACTIVE LIVING	UPPER KAUHI ST	96819	HI SHWS, HI SPILLS, HI INST CONTROL

Count: 11 records.



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### Federal Delisted NPL site list

**DELISTED NPL:** National Priority List Deletions  
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.

Source: EPA  
Date Data Arrived at EDR: 10/08/2014  
Last EDR Contact: 10/08/2014  
Next Scheduled EDR Contact: 01/19/2015  
Number of Days to Update: 40  
Data Release Frequency: Quarterly

### Federal CERCLIS list

**CERCLIS:** Comprehensive Environmental Response, Compensation, and Liability Information System  
CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private owners, 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.

Source: EPA  
Date of Government Version: 10/25/2013  
Date Data Arrived at EDR: 11/11/2013  
Last EDR Contact: 08/28/2014  
Next Scheduled EDR Contact: 12/08/2014  
Number of Days to Update: 94  
Data Release Frequency: Quarterly

### FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Offices is involved in cleanup activities.

Source: Environmental Protection Agency  
Date Data Arrived at EDR: 07/21/2014  
Telephone: 703-603-9704  
Last EDR Contact: 10/07/2014  
Next Scheduled EDR Contact: 01/19/2015  
Number of Days to Update: 13  
Data Release Frequency: Varies

### Federal CERCLIS NFRAP site List

**CERCLIS-NFRAP:** CERCLIS No Further Remedial Action Planned  
Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Source: EPA  
Date of Government Version: 10/25/2013  
Date Data Arrived at EDR: 11/11/2013  
Telephone: 703-412-9810  
Last EDR Contact: 08/28/2014  
Next Scheduled EDR Contact: 12/09/2014  
Number of Days to Update: 94  
Data Release Frequency: Quarterly

### Federal RCRA CORRACTS Facilities list

**CORRACTS:** Corrective Action Report  
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Source: EPA  
Date of Government Version: 06/10/2014  
Date Data Arrived at EDR: 07/02/2014  
Telephone: 800-424-8346  
Last EDR Contact: 11/07/2014  
Next Scheduled EDR Contact: 01/12/2015  
Number of Days to Update: 78  
Data Release Frequency: Quarterly

### Federal RCRA non-CORRACTS TSD facilities list

**RCRA-TSDF:** RCRA - Treatment, Storage and Disposal  
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database 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). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Source: Environmental Protection Agency  
Date of Government Version: 06/10/2014  
Date Data Arrived at EDR: 07/02/2014  
Telephone: (415) 495-8895  
Last EDR Contact: 11/07/2014  
Next Scheduled EDR Contact: 01/12/2015  
Number of Days to Update: 78  
Data Release Frequency: Quarterly

### Federal RCRA generators list

**RCRA-LOG:** RCRA - Large Quantity Generators  
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database 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). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Source: Environmental Protection Agency  
Date of Government Version: 06/10/2014  
Date Data Arrived at EDR: 07/02/2014  
Telephone: (415) 495-8895  
Last EDR Contact: 11/07/2014  
Next Scheduled EDR Contact: 01/12/2015  
Number of Days to Update: 78  
Data Release Frequency: Quarterly

### RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database 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). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Source: Environmental Protection Agency  
Date of Government Version: 06/10/2014  
Date Data Arrived at EDR: 07/02/2014  
Telephone: (415) 495-8895  
Last EDR Contact: 11/07/2014  
Next Scheduled EDR Contact: 01/12/2015  
Number of Days to Update: 78  
Data Release Frequency: Quarterly

### RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database 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.

Source: Environmental Protection Agency  
Date of Government Version: 06/10/2014  
Date Data Arrived at EDR: 07/02/2014  
Telephone: (415) 495-8895  
Last EDR Contact: 11/07/2014  
Next Scheduled EDR Contact: 01/12/2015  
Number of Days to Update: 78  
Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### Federal / institutional controls / engineering controls registrés

#### US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/19/2014  
Date Data Arrived at EDR: 09/19/2014  
Date Made Active in Reports: 10/20/2014  
Number of Days to Update: 31  
Source: Environmental Protection Agency  
Telephone: 703-603-0695  
Last EDR Contact: 09/08/2014  
Next Scheduled EDR Contact: 12/22/2014  
Data Release Frequency: Varies

#### US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/19/2014  
Date Data Arrived at EDR: 09/19/2014  
Date Made Active in Reports: 10/20/2014  
Number of Days to Update: 31  
Source: Environmental Protection Agency  
Telephone: 703-603-0695  
Last EDR Contact: 09/08/2014  
Next Scheduled EDR Contact: 12/22/2014  
Data Release Frequency: Varies

#### LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 06/29/2014  
Date Data Arrived at EDR: 10/09/2014  
Date Made Active in Reports: 10/20/2014  
Number of Days to Update: 11  
Source: Department of the Navy  
Telephone: 843-820-7326  
Last EDR Contact: 11/17/2014  
Next Scheduled EDR Contact: 03/02/2015  
Data Release Frequency: Varies

### Federal ERNS list

#### ERNS: Emergency Response Notification System

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

Date of Government Version: 09/29/2014  
Date Data Arrived at EDR: 09/30/2014  
Date Made Active in Reports: 11/06/2014  
Number of Days to Update: 37  
Source: National Response Center, United States Coast Guard  
Telephone: 202-267-2190  
Last EDR Contact: 09/30/2014  
Next Scheduled EDR Contact: 01/12/2015  
Data Release Frequency: Annually

### State- and tribal - equivalent CERCLIS

#### SHWS: Sites List

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: 01/04/2014  
Date Data Arrived at EDR: 02/26/2014  
Date Made Active in Reports: 03/07/2014  
Number of Days to Update: 9  
Source: Department of Health  
Telephone: 808-586-4249  
Last EDR Contact: 08/29/2014  
Next Scheduled EDR Contact: 12/08/2014  
Data Release Frequency: Semi-Annually

### State and tribal landfill and/or solid waste disposal site lists

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### SWFLF: Permitted Landfills in the State of Hawaii

Solid Waste Facilities/Landfill Sites. SWFLF-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: 09/17/2012  
Date Data Arrived at EDR: 04/03/2013  
Date Made Active in Reports: 05/10/2013  
Number of Days to Update: 37  
Source: Department of Health  
Telephone: 808-586-4245  
Last EDR Contact: 10/03/2014  
Next Scheduled EDR Contact: 01/12/2015  
Data Release Frequency: Varies

### State and tribal leaking storage tank lists

#### LUST: Leaking Underground Storage Tank Database

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: 09/17/2014  
Date Data Arrived at EDR: 09/19/2014  
Date Made Active in Reports: 09/25/2014  
Number of Days to Update: 6  
Source: Department of Health  
Telephone: 808-586-4228  
Last EDR Contact: 09/02/2014  
Next Scheduled EDR Contact: 12/15/2014  
Data Release Frequency: Semi-Annually

#### INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/01/2013  
Date Data Arrived at EDR: 03/01/2013  
Date Made Active in Reports: 04/12/2013  
Number of Days to Update: 42  
Source: Environmental Protection Agency  
Telephone: 415-972-3372  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Quarterly

#### INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/20/2014  
Date Data Arrived at EDR: 06/10/2014  
Date Made Active in Reports: 08/22/2014  
Number of Days to Update: 73  
Source: EPA Region 10  
Telephone: 206-559-2857  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Quarterly

#### INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 11/03/2014  
Date Data Arrived at EDR: 11/05/2014  
Date Made Active in Reports: 11/17/2014  
Number of Days to Update: 12  
Source: EPA, Region 5  
Telephone: 312-886-7439  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Varies

#### INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/01/2013  
Date Data Arrived at EDR: 05/01/2013  
Date Made Active in Reports: 11/01/2013  
Number of Days to Update: 184  
Source: EPA Region 1  
Telephone: 617-918-1313  
Last EDR Contact: 10/31/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Florida, Mississippi and North Carolina.  
Date of Government Version: 07/30/2014  
Date Data Arrived at EDR: 06/12/2014  
Date Made Active in Reports: 08/22/2014  
Number of Days to Update: 10  
Source: EPA Region 4  
Telephone: 404-562-8677  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in New Mexico and Oklahoma.  
Date of Government Version: 10/06/2014  
Date Data Arrived at EDR: 10/29/2014  
Date Made Active in Reports: 11/17/2014  
Number of Days to Update: 19  
Source: EPA Region 6  
Telephone: 214-665-6597  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Iowa, Kansas, and Nebraska  
Date of Government Version: 05/22/2014  
Date Data Arrived at EDR: 06/22/2014  
Date Made Active in Reports: 09/18/2014  
Number of Days to Update: 27  
Source: EPA Region 7  
Telephone: 913-551-7003  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.  
Date of Government Version: 11/04/2014  
Date Data Arrived at EDR: 11/07/2014  
Date Made Active in Reports: 11/17/2014  
Number of Days to Update: 10  
Source: EPA Region 8  
Telephone: 303-312-6271  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Quarterly

### State and tribal registered storage tank lists

UST: Underground Storage Tank Database  
Registered Underground Storage Tanks. USTs 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.

Source: Department of Health  
Telephone: 808-586-4228  
Last EDR Contact: 09/02/2014  
Next Scheduled EDR Contact: 12/15/2014  
Data Release Frequency: Semi-Annually

INDIAN LUST R4: Underground Storage Tanks on Indian Land  
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 07/30/2014  
Date Data Arrived at EDR: 08/12/2014  
Date Made Active in Reports: 08/22/2014  
Number of Days to Update: 10  
Source: EPA Region 4  
Telephone: 404-562-9424  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Semi-Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R5: Underground Storage Tanks on Indian Land  
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).  
Date of Government Version: 11/03/2014  
Date Data Arrived at EDR: 11/05/2014  
Date Made Active in Reports: 11/17/2014  
Number of Days to Update: 12  
Source: EPA Region 5  
Telephone: 312-886-6136  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Varies

INDIAN LUST R6: Underground Storage Tanks on Indian Land  
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).  
Date of Government Version: 10/06/2014  
Date Data Arrived at EDR: 10/29/2014  
Date Made Active in Reports: 11/06/2014  
Number of Days to Update: 8  
Source: EPA Region 6  
Telephone: 214-665-7591  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Semi-Annually

INDIAN LUST R7: Underground Storage Tanks on Indian Land  
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).  
Date of Government Version: 08/20/2014  
Date Data Arrived at EDR: 08/22/2014  
Date Made Active in Reports: 09/18/2014  
Number of Days to Update: 27  
Source: EPA Region 7  
Telephone: 913-551-7003  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Varies

INDIAN LUST R8: Underground Storage Tanks on Indian Land  
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).  
Date of Government Version: 11/04/2014  
Date Data Arrived at EDR: 11/07/2014  
Date Made Active in Reports: 11/17/2014  
Number of Days to Update: 10  
Source: EPA Region 8  
Telephone: 303-312-6137  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Quarterly

INDIAN LUST R9: Underground Storage Tanks on Indian Land  
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).  
Date of Government Version: 08/14/2014  
Date Data Arrived at EDR: 08/15/2014  
Date Made Active in Reports: 08/22/2014  
Number of Days to Update: 7  
Source: EPA Region 9  
Telephone: 415-972-3388  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Quarterly

INDIAN LUST R10: Underground Storage Tanks on Indian Land  
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).  
Date of Government Version: 05/20/2014  
Date Data Arrived at EDR: 06/10/2014  
Date Made Active in Reports: 06/15/2014  
Number of Days to Update: 66  
Source: EPA Region 10  
Telephone: 206-553-2857  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Quarterly

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/01/2013  
Date Data Arrived at EDR: 05/01/2013  
Date Made Active in Reports: 01/27/2014  
Number of Days to Update: 271  
Source: EPA, Region 1  
Telephone: 617-918-1313  
Last EDR Contact: 10/31/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Varies

### FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010  
Date Data Arrived at EDR: 02/16/2010  
Date Made Active in Reports: 04/12/2010  
Number of Days to Update: 55  
Source: FEMA  
Telephone: 202-646-5797  
Last EDR Contact: 10/10/2014  
Next Scheduled EDR Contact: 01/26/2015  
Data Release Frequency: Varies

### State and tribal institutional control / engineering control registries

#### ENG CONTROLS: Engineering Control Sites

A listing of sites with engineering controls in place.

Date of Government Version: 01/04/2014  
Date Data Arrived at EDR: 02/26/2014  
Date Made Active in Reports: 03/07/2014  
Number of Days to Update: 9  
Source: Department of Health  
Telephone: 404-586-4249  
Last EDR Contact: 08/29/2014  
Next Scheduled EDR Contact: 12/09/2014  
Data Release Frequency: Varies

#### INST CONTROL: Sites with Institutional Controls

Voluntary Remediation Program and Brownfields sites with institutional controls in place.

Date of Government Version: 01/04/2014  
Date Data Arrived at EDR: 02/26/2014  
Date Made Active in Reports: 03/07/2014  
Number of Days to Update: 9  
Source: Department of Health  
Telephone: 808-586-4249  
Last EDR Contact: 08/29/2014  
Next Scheduled EDR Contact: 12/08/2014  
Data Release Frequency: Varies

### State and tribal voluntary cleanup sites

#### INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008  
Date Data Arrived at EDR: 04/22/2008  
Date Made Active in Reports: 05/19/2008  
Number of Days to Update: 27  
Source: EPA, Region 7  
Telephone: 913-551-7365  
Last EDR Contact: 04/20/2009  
Next Scheduled EDR Contact: 07/20/2009  
Data Release Frequency: Varies

#### INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014  
Date Data Arrived at EDR: 10/01/2014  
Date Made Active in Reports: 11/06/2014  
Number of Days to Update: 36  
Source: EPA, Region 1  
Telephone: 617-918-1102  
Last EDR Contact: 10/01/2014  
Next Scheduled EDR Contact: 01/12/2015  
Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### VCP: Voluntary Response Program Sites

Sites participating in the Voluntary Response Program. The purpose of the VRP is to streamline the cleanup process in a way that will encourage prospective developers, lenders, and purchasers to voluntarily cleanup properties.

Date of Government Version: 01/04/2014  
Date Data Arrived at EDR: 02/26/2014  
Date Made Active in Reports: 03/07/2014  
Number of Days to Update: 9  
Source: Department of Health  
Telephone: 808-586-4249  
Last EDR Contact: 08/29/2014  
Next Scheduled EDR Contact: 12/08/2014  
Data Release Frequency: Varies

### State and tribal Brownfields sites

#### BROWNFIELDS: Brownfields Sites

With certain legal exclusions and additions, the term 'brownfield site' means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

Date of Government Version: 01/04/2014  
Date Data Arrived at EDR: 02/26/2014  
Date Made Active in Reports: 03/07/2014  
Number of Days to Update: 9  
Source: Department of Health  
Telephone: 808-586-4249  
Last EDR Contact: 08/29/2014  
Next Scheduled EDR Contact: 12/08/2014  
Data Release Frequency: Varies

### ADDITIONAL ENVIRONMENTAL RECORDS

#### Local Brownfield lists

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

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up, with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfields sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/22/2014  
Date Data Arrived at EDR: 09/23/2014  
Date Made Active in Reports: 10/20/2014  
Number of Days to Update: 27  
Source: Environmental Protection Agency  
Telephone: 202-566-2777  
Last EDR Contact: 11/07/2014  
Next Scheduled EDR Contact: 01/05/2015  
Data Release Frequency: Semi-Annually

#### Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations  
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009  
Date Data Arrived at EDR: 05/07/2009  
Date Made Active in Reports: 05/21/2009  
Number of Days to Update: 137  
Source: EPA, Region 9  
Telephone: 415-947-4219  
Last EDR Contact: 10/24/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: No Update Planned

#### OD: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985  
Date Data Arrived at EDR: 09/09/2004  
Date Made Active in Reports: 09/17/2004  
Number of Days to Update: 39  
Source: Environmental Protection Agency  
Telephone: 800-424-9346  
Last EDR Contact: 06/09/2004  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Source: Environmental Protection Agency  
Date of Government Version: 12/31/1998  
Telephone: 703-308-8245  
Date Data Arrived at EDR: 12/03/2007  
Last EDR Contact: 10/29/2014  
Date Made Active in Reports: 01/24/2008  
Next Scheduled EDR Contact: 02/16/2015  
Data Release Frequency: Varies

### Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Source: Drug Enforcement Administration  
Date of Government Version: 07/25/2014  
Telephone: 202-307-1000  
Date Data Arrived at EDR: 09/09/2014  
Last EDR Contact: 09/03/2014  
Date Made Active in Reports: 10/20/2014  
Next Scheduled EDR Contact: 12/15/2014  
Data Release Frequency: Quarterly

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab site locations.

Source: Department of Health  
Telephone: 808-586-4249  
Date Data Arrived at EDR: 09/10/2010  
Last EDR Contact: 09/03/2014  
Date Made Active in Reports: 10/22/2010  
Next Scheduled EDR Contact: 12/15/2014  
Data Release Frequency: Varies

US HST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Source: Drug Enforcement Administration  
Date of Government Version: 07/25/2014  
Telephone: 202-307-1000  
Date Data Arrived at EDR: 09/09/2014  
Last EDR Contact: 09/03/2014  
Date Made Active in Reports: 10/20/2014  
Next Scheduled EDR Contact: 12/15/2014  
Data Release Frequency: No Update Planned

### Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Source: Environmental Protection Agency  
Date of Government Version: 02/18/2014  
Telephone: 202-564-6023  
Date Data Arrived at EDR: 03/18/2014  
Last EDR Contact: 10/27/2014  
Date Made Active in Reports: 04/24/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### Records of Emergency Release Reports

HIMRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HIMRS contains hazardous material spill incidents reported to DOT.  
Source: U.S. Department of Transportation  
Date of Government Version: 09/30/2014  
Telephone: 202-366-4555  
Date Data Arrived at EDR: 10/01/2014  
Last EDR Contact: 10/01/2014  
Date Made Active in Reports: 11/06/2014  
Next Scheduled EDR Contact: 01/12/2015  
Data Release Frequency: Annually

SPILLS: Release Notifications

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

Source: Department of Health  
Date of Government Version: 01/04/2014  
Telephone: 808-586-4249  
Date Data Arrived at EDR: 02/26/2014  
Last EDR Contact: 08/29/2014  
Date Made Active in Reports: 03/10/2014  
Next Scheduled EDR Contact: 12/08/2014  
Data Release Frequency: Varies

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Source: FirstSearch  
Date of Government Version: 03/10/2012  
Telephone: N/A  
Date Data Arrived at EDR: 01/03/2013  
Last EDR Contact: 01/03/2013  
Date Made Active in Reports: 02/11/2013  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

### Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database 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). Non-Generators do not presently generate hazardous waste.

Source: Environmental Protection Agency  
Date of Government Version: 06/10/2014  
Telephone: (415) 485-8895  
Date Data Arrived at EDR: 07/02/2014  
Last EDR Contact: 11/07/2014  
Date Made Active in Reports: 09/18/2014  
Next Scheduled EDR Contact: 01/12/2015  
Data Release Frequency: Varies

DOTOPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Source: Department of Transportation, Office of Pipeline Safety  
Date of Government Version: 07/31/2012  
Telephone: 202-366-4595  
Date Data Arrived at EDR: 08/07/2012  
Last EDR Contact: 11/04/2014  
Date Made Active in Reports: 09/18/2012  
Next Scheduled EDR Contact: 02/16/2015  
Data Release Frequency: Varies

DOD: Department of Defense Sites

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.



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 11/02/2006  
Date Made Active in Reports: 01/11/2007  
Number of Days to Update: 62

Source: USGS  
Telephone: 888-275-5747  
Last EDR Contact: 11/07/2014  
Next Scheduled EDR Contact: 01/29/2015  
Data Release Frequency: Semi-Annually

### FUDS: Formerly Used Defense Sites

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: 06/06/2014  
Date Data Arrived at EDR: 09/10/2014  
Date Made Active in Reports: 09/19/2014  
Number of Days to Update: 8

Source: U.S. Army Corps of Engineers  
Telephone: 202-528-4285  
Last EDR Contact: 09/10/2014  
Next Scheduled EDR Contact: 12/22/2014  
Data Release Frequency: Varies

### CONSENT: Superfund (CERCLA) Consent Decreases

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: 12/31/2013  
Date Data Arrived at EDR: 01/24/2014  
Date Made Active in Reports: 02/24/2014  
Number of Days to Update: 31

Source: Department of Justice, Consent Decree Library  
Telephone: Varies  
Last EDR Contact: 09/30/2014  
Next Scheduled EDR Contact: 01/12/2015  
Data Release Frequency: Varies

### ROD: Records Of Decision

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: 11/25/2013  
Date Data Arrived at EDR: 12/12/2013  
Date Made Active in Reports: 02/24/2014  
Number of Days to Update: 74

Source: EPA  
Telephone: 703-416-0223  
Last EDR Contact: 09/09/2014  
Next Scheduled EDR Contact: 12/22/2014  
Data Release Frequency: Annually

### UMTRA: Uranium Mill Tailings Sites

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.

Date of Government Version: 09/14/2010  
Date Data Arrived at EDR: 10/07/2011  
Date Made Active in Reports: 03/01/2012  
Number of Days to Update: 146

Source: Department of Energy  
Telephone: 303-846-0011  
Last EDR Contact: 08/20/2014  
Next Scheduled EDR Contact: 12/09/2014  
Data Release Frequency: Varies

### US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 06/05/2014  
Date Data Arrived at EDR: 09/04/2014  
Date Made Active in Reports: 11/17/2014  
Number of Days to Update: 74

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959  
Last EDR Contact: 09/04/2014  
Next Scheduled EDR Contact: 12/15/2014  
Data Release Frequency: Semi-Annually

### TRIS: Toxic Chemical Release Inventory System

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.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2011  
Date Data Arrived at EDR: 07/31/2013  
Date Made Active in Reports: 09/13/2013  
Number of Days to Update: 44

Source: EPA  
Telephone: 202-566-0250  
Last EDR Contact: 08/29/2014  
Next Scheduled EDR Contact: 12/08/2014  
Data Release Frequency: Annually

### TSCA: Toxic Substances Control Act

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: 12/31/2006  
Date Data Arrived at EDR: 09/29/2010  
Date Made Active in Reports: 12/02/2010  
Number of Days to Update: 64

Source: EPA  
Telephone: 202-260-5521  
Last EDR Contact: 09/26/2014  
Next Scheduled EDR Contact: 01/05/2015  
Data Release Frequency: Every 4 Years

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

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: 04/09/2009  
Date Data Arrived at EDR: 04/16/2009  
Date Made Active in Reports: 05/11/2009  
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances  
Telephone: 202-566-1667  
Last EDR Contact: 08/19/2014  
Next Scheduled EDR Contact: 12/08/2014  
Data Release Frequency: Quarterly

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

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009  
Date Data Arrived at EDR: 04/16/2009  
Date Made Active in Reports: 05/11/2009  
Number of Days to Update: 25

Source: EPA  
Telephone: 202-566-1667  
Last EDR Contact: 08/19/2014  
Next Scheduled EDR Contact: 12/08/2014  
Data Release Frequency: Quarterly

### HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006  
Date Data Arrived at EDR: 03/01/2007  
Date Made Active in Reports: 04/10/2007  
Number of Days to Update: 40

Source: Environmental Protection Agency  
Telephone: 202-564-2501  
Last EDR Contact: 12/17/2007  
Next Scheduled EDR Contact: 03/17/2008  
Data Release Frequency: No Update Planned

### HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006  
Date Data Arrived at EDR: 03/01/2007  
Date Made Active in Reports: 04/10/2007  
Number of Days to Update: 40

Source: Environmental Protection Agency  
Telephone: 202-564-2501  
Last EDR Contact: 12/17/2008  
Next Scheduled EDR Contact: 03/17/2008  
Data Release Frequency: No Update Planned

### SSTS: Section 7 Tracking Systems

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: 12/31/2009  
Date Data Arrived at EDR: 12/10/2010  
Date Made Active in Reports: 02/25/2011  
Number of Days to Update: 77

Source: EPA  
Telephone: 202-564-4203  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Annually

### ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/31/2014  
Date Data Arrived at EDR: 10/29/2014  
Date Made Active in Reports: 11/06/2014  
Number of Days to Update: 8

Source: Environmental Protection Agency  
Telephone: 202-564-5088  
Last EDR Contact: 10/10/2014  
Next Scheduled EDR Contact: 01/26/2015  
Data Release Frequency: Quarterly

### PADS: PCB Activity Database System

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: 07/01/2014  
Date Data Arrived at EDR: 10/15/2014  
Date Made Active in Reports: 11/17/2014  
Number of Days to Update: 33

Source: EPA  
Telephone: 202-566-0500  
Last EDR Contact: 10/15/2014  
Next Scheduled EDR Contact: 01/26/2015  
Data Release Frequency: Annually

### MLTS: Material Licensing Tracking System

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: 07/22/2013  
Date Data Arrived at EDR: 06/02/2013  
Date Made Active in Reports: 11/01/2013  
Number of Days to Update: 91

Source: Nuclear Regulatory Commission  
Telephone: 301-415-7169  
Last EDR Contact: 09/08/2014  
Next Scheduled EDR Contact: 12/22/2014  
Data Release Frequency: Quarterly

### RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/07/2014  
Date Data Arrived at EDR: 10/08/2014  
Date Made Active in Reports: 10/20/2014  
Number of Days to Update: 12

Source: Environmental Protection Agency  
Telephone: 202-343-9775  
Last EDR Contact: 10/08/2014  
Next Scheduled EDR Contact: 01/19/2015  
Data Release Frequency: Quarterly

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### FINDS: Facility Index System/Facility Registry System

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: 08/16/2014  
Date Data Arrived at EDR: 09/10/2014  
Date Made Active in Reports: 10/20/2014  
Number of Days to Update: 40

Source: EPA  
Telephone: (415) 947-8000  
Last EDR Contact: 09/10/2014  
Next Scheduled EDR Contact: 12/22/2014  
Data Release Frequency: Quarterly

### RAATS: RCRA Administrative Action Tracking System

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 administrative 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: 04/17/1995  
Date Data Arrived at EDR: 07/03/1995  
Date Made Active in Reports: 08/07/1995  
Number of Days to Update: 35

Source: EPA  
Telephone: 202-564-4104  
Last EDR Contact: 06/02/2008  
Next Scheduled EDR Contact: 09/01/2008  
Data Release Frequency: No Update Planned

### RMP: Risk Management Plans

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(i) 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.

Date of Government Version: 08/01/2014  
Date Data Arrived at EDR: 08/12/2014  
Date Made Active in Reports: 11/06/2014  
Number of Days to Update: 86

Source: Environmental Protection Agency  
Telephone: 202-564-8600  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Varies

### BRS: Biennial Reporting System

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: 12/31/2011  
Date Data Arrived at EDR: 02/26/2013  
Date Made Active in Reports: 04/19/2013  
Number of Days to Update: 52

Source: EPA/NTIS  
Telephone: 800-424-9346  
Last EDR Contact: 08/29/2014  
Next Scheduled EDR Contact: 12/08/2014  
Data Release Frequency: Biennially

### UIC: Underground Injection Wells Listing

A listing of underground injection well locations.

Date of Government Version: 02/07/2013  
Date Data Arrived at EDR: 02/12/2013  
Date Made Active in Reports: 04/09/2013  
Number of Days to Update: 56

Source: Department of Health  
Telephone: 808-596-4258  
Last EDR Contact: 08/02/2014  
Next Scheduled EDR Contact: 12/15/2014  
Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### DRYCLEANERS: Permitted Drycleaner Facility Listing

A listing of permitted drycleaner facilities in the state.

Date of Government Version: 04/01/2014  
Date Data Arrived at EDR: 05/09/2014  
Date Made Active in Reports: 06/03/2014  
Number of Days to Update: 25  
Source: Department of Health  
Telephone: 808-586-4200  
Last EDR Contact: 10/03/2014  
Next Scheduled EDR Contact: 01/19/2015  
Data Release Frequency: Varies

### AIRS: List of Permitted Facilities

A listing of permitted facilities in the state.

Date of Government Version: 07/08/2014  
Date Data Arrived at EDR: 07/10/2014  
Date Made Active in Reports: 08/08/2014  
Number of Days to Update: 29  
Source: Department of Health  
Telephone: 808-586-4200  
Last EDR Contact: 11/04/2014  
Next Scheduled EDR Contact: 01/19/2015  
Data Release Frequency: Varies

### INDIAN RESERV: Indian Reservations

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: 12/31/2005  
Date Data Arrived at EDR: 12/08/2006  
Date Made Active in Reports: 07/11/2007  
Number of Days to Update: 34  
Source: USGS  
Telephone: 202-208-3710  
Last EDR Contact: 11/07/2014  
Next Scheduled EDR Contact: 01/26/2015  
Data Release Frequency: Semi-Annually

### SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011  
Date Data Arrived at EDR: 03/09/2011  
Date Made Active in Reports: 05/02/2011  
Number of Days to Update: 54  
Source: Environmental Protection Agency  
Telephone: 615-532-8599  
Last EDR Contact: 10/20/2014  
Next Scheduled EDR Contact: 02/02/2015  
Data Release Frequency: Varies

### FEDLAND: Federal and Indian Lands

Federally and Indian administered lands of the United States. Lands included are administered by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 02/06/2006  
Date Made Active in Reports: 01/11/2007  
Number of Days to Update: 339  
Source: U.S. Geological Survey  
Telephone: 888-276-8747  
Last EDR Contact: 11/07/2014  
Next Scheduled EDR Contact: 01/26/2015  
Data Release Frequency: N/A

### 2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/11/2011  
Date Data Arrived at EDR: 05/18/2012  
Date Made Active in Reports: 05/25/2012  
Number of Days to Update: 7  
Source: Environmental Protection Agency  
Telephone: 703-306-4044  
Last EDR Contact: 11/14/2014  
Next Scheduled EDR Contact: 02/23/2015  
Data Release Frequency: Varies

### PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013  
Date Data Arrived at EDR: 10/17/2014  
Date Made Active in Reports: 10/20/2014  
Number of Days to Update: 3  
Source: EPA  
Telephone: 202-564-6023  
Last EDR Contact: 09/30/2014  
Next Scheduled EDR Contact: 01/12/2015  
Data Release Frequency: Quarterly

### LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001  
Date Data Arrived at EDR: 10/27/2010  
Date Made Active in Reports: 12/02/2010  
Number of Days to Update: 36  
Source: American Journal of Public Health  
Telephone: 703-305-6451  
Last EDR Contact: 12/02/2009  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

### LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 06/04/2014  
Date Data Arrived at EDR: 06/12/2014  
Date Made Active in Reports: 07/28/2014  
Number of Days to Update: 46  
Source: Environmental Protection Agency  
Telephone: 703-603-8787  
Last EDR Contact: 10/06/2014  
Next Scheduled EDR Contact: 01/19/2015  
Data Release Frequency: Varies

### EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013  
Date Data Arrived at EDR: 03/21/2014  
Date Made Active in Reports: 06/17/2014  
Number of Days to Update: 88  
Source: Environmental Protection Agency  
Telephone: 617-520-3000  
Last EDR Contact: 11/14/2014  
Next Scheduled EDR Contact: 02/23/2015  
Data Release Frequency: Quarterly

### COMLASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014  
Date Data Arrived at EDR: 09/10/2014  
Date Made Active in Reports: 10/20/2014  
Number of Days to Update: 40  
Source: Environmental Protection Agency  
Telephone: N/A  
Last EDR Contact: 09/10/2014  
Next Scheduled EDR Contact: 12/22/2014  
Data Release Frequency: Varies

### PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/01/2011  
Date Data Arrived at EDR: 10/19/2011  
Date Made Active in Reports: 01/10/2012  
Number of Days to Update: 83  
Source: Environmental Protection Agency  
Telephone: 202-566-0517  
Last EDR Contact: 10/31/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Varies

### US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/04/2014  
Date Data Arrived at EDR: 09/04/2014  
Date Made Active in Reports: 10/20/2014  
Number of Days to Update: 46  
Source: Environmental Protection Agency  
Telephone: 202-566-1917  
Last EDR Contact: 11/11/2014  
Next Scheduled EDR Contact: 03/02/2015  
Data Release Frequency: Quarterly

### Financial Assurance: Financial Assurance Information Listing

A listing of financial assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 09/17/2014  
Date Data Arrived at EDR: 09/19/2014  
Date Made Active in Reports: 09/25/2014  
Number of Days to Update: 6  
Source: Department of Health  
Telephone: 808-586-4226  
Last EDR Contact: 09/15/2014  
Next Scheduled EDR Contact: 12/29/2014  
Data Release Frequency: Varies

### COAL ASH DOE: Steam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 06/07/2009  
Date Made Active in Reports: 10/22/2009  
Number of Days to Update: 76  
Source: Department of Energy  
Telephone: 202-586-8719  
Last EDR Contact: 10/17/2014  
Next Scheduled EDR Contact: 01/26/2015  
Data Release Frequency: Varies

### US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/16/2014  
Date Data Arrived at EDR: 10/31/2014  
Date Made Active in Reports: 11/17/2014  
Number of Days to Update: 17  
Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/29/2014  
Next Scheduled EDR Contact: 01/12/2015  
Data Release Frequency: Annually

### US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/16/2014  
Date Data Arrived at EDR: 10/31/2014  
Date Made Active in Reports: 11/17/2014  
Number of Days to Update: 17  
Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/29/2014  
Next Scheduled EDR Contact: 01/12/2015  
Data Release Frequency: Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### EDR HIGH RISK HISTORICAL RECORDS

#### EDR Exclusive Records

##### EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) produced by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used waste oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oil waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A  
Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

##### EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRRR. EDR's HRRR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A  
Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

##### EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromats, clothing/laundry, wash & dryers. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRRR. EDR's HRRR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A  
Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

### EDR RECOVERED GOVERNMENT ARCHIVES

#### Exclusive Recovered Govt. Archives

##### REGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from records formerly available from the Department of Health in Hawaii.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A  
Date Data Arrived at EDR: 07/01/2013  
Date Made Active in Reports: 07/03/2014  
Number of Days to Update: 186  
Source: Department of Health  
Telephone: N/A  
Last EDR Contact: 06/01/2012  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List  
The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health in Hawaii.

Date of Government Version: N/A  
Date Data Arrived at EDR: 07/01/2013  
Date Made Active in Reports: 01/09/2014  
Number of Days to Update: 191  
Source: Department of Health  
Telephone: N/A  
Last EDR Contact: 06/01/2012  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List  
The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health in Hawaii.

Date of Government Version: N/A  
Date Data Arrived at EDR: 07/01/2013  
Date Made Active in Reports: 01/17/2014  
Number of Days to Update: 200  
Source: Department of Health  
Telephone: N/A  
Last EDR Contact: 06/01/2012  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

### 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.

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

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 2003 & 2011 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, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5 Topographic Map (DRG)  
Source: United States Geological Survey  
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

### STREET AND ADDRESS INFORMATION

© 2010 Tele Atlas North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.



## GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM

### TARGET PROPERTY ADDRESS

SOEST FACILITY  
SAND ISLAND ACCESS ROAD  
HONOLULU, HI 96819

### TARGET PROPERTY COORDINATES

Latitude (North): 21° 31' 18" - 21° 42' 48"  
Longitude (West): 157° 48' 76" - 157° 53' 15.36"  
Universal Transverse Mercator:  
Zone 4  
UTM X (Meters): 615375.8  
UTM Y (Meters): 2356924.2  
Elevation:  
3 ft. above sea level

### USGS TOPOGRAPHIC MAP

Target Property Map: 21157-C8 PEARL HARBOR, HI  
Most Recent Revision: Not reported  
East Map: 21157-C7 HONOLULU, HI  
Most Recent Revision: Not reported

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.

Assessment of the impact of contaminant migration generally has two principal 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.

## 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).

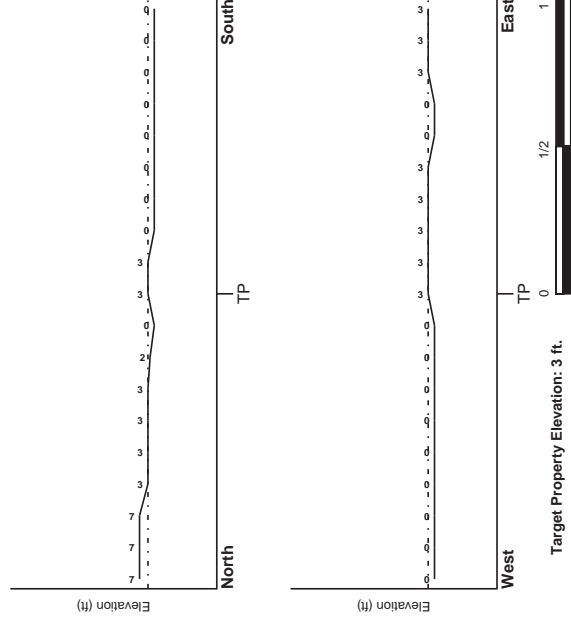
### TOPOGRAPHIC INFORMATION

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

General Topographic Gradient: General SW

### 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

Target Property County: HONOLULU, HI  
 FEMA Flood Electronic Data: YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 15003C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

### NATIONAL WETLAND INVENTORY

NWI Quad at Target Property: NOT AVAILABLE  
 NWI Electronic Data Coverage: YES - refer to the Overview Map and Detail Map

### 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.

MAP ID: Not Reported  
 LOCATION FROM: TP  
 GENERAL DIRECTION: GROUNDWATER FLOW

## 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 silt-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

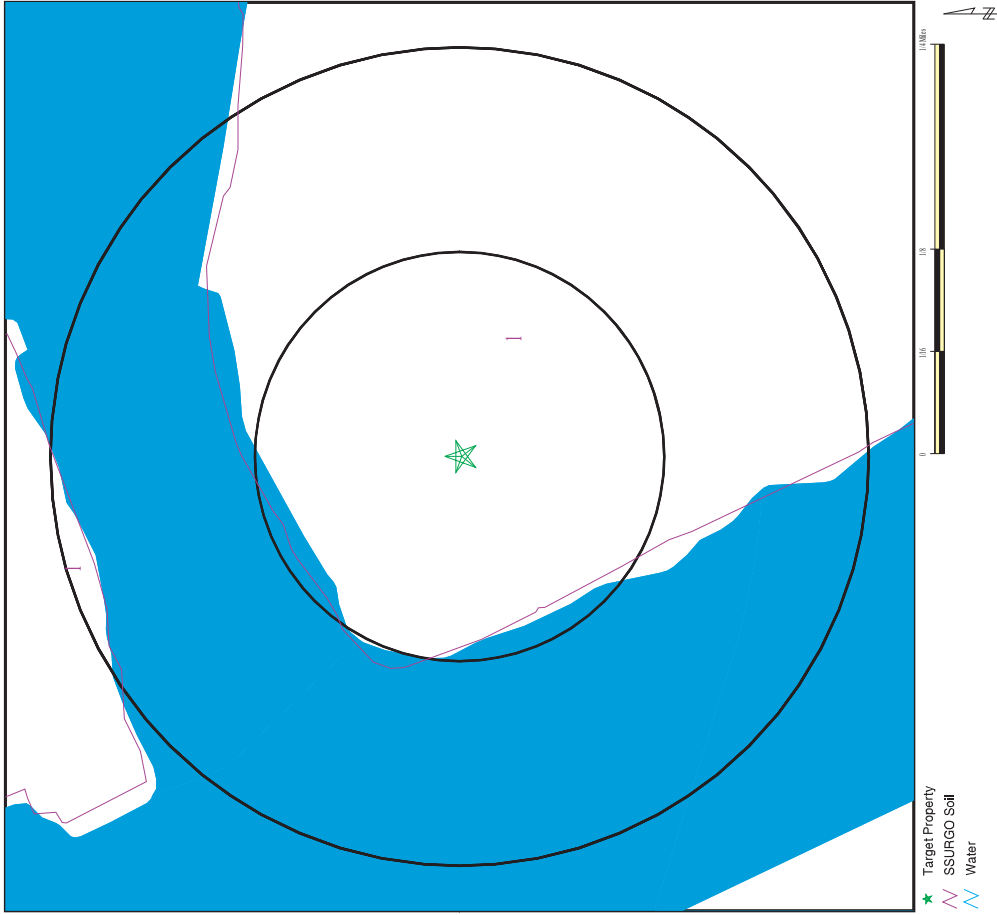
Era: -  
 System: -  
 Series: -  
 Code: N/A (decoded above as Era, System & Series)

### GEOLOGIC AGE IDENTIFICATION

Category: -

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).

**SSURGO SOIL MAP - 4138072.2s**



**GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY**

**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. The following information is based on Soil Conservation Service SSURGO data.

**Soil Map ID: 1**

- Soil Component Name: Fill land, mixed
- Soil Surface Texture: gravelly sandy loam
- Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
- Soil Drainage Class: Well drained
- Hydric Status: Not hydric
- Corrosion Potential - Uncoated Steel: High
- Depth to Bedrock Min: > 152 inches
- Depth to Waterable Min: > 0 inches

Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	gravelly sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 1.41	Max: 7.3 Min: 6.1
2	5 inches	59 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 1.41	Max: 7.3 Min: 6.1
3	59 inches	70 inches	bedrock	Not reported	Not reported	Max: 0.42 Min: 0.02	Max: Min:

**LOCAL / REGIONAL WATER AGENCY RECORDS**

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

SITE NAME: SOEST Facility  
 ADDRESS: Sand Island Access Road  
 Honolulu HI 96819  
 LAT/LONG: 21.3118 / 157.8876

CLIENT: Enviro Svcs. and Trng. Center  
 CONTACT: Lisa Baxter  
 INQUIRY #: 4138072.2s  
 DATE: November 19, 2014 0:46 am

Copyright © 2014 EDR, Inc. © 2010 T&E Data RLL 07/2009.

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1,000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1,000

### FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	USGS40000269749	1/4 - 1/2 Mile ENE
B3	USGS40000269787	1/4 - 1/2 Mile NW
5	USGS40000269806	1/2 - 1 Mile NNW
C6	USGS40000269764	1/2 - 1 Mile ENE
C7	USGS40000269754	1/2 - 1 Mile ENE
8	USGS40000269791	1/2 - 1 Mile East
9	USGS40000269730	1/2 - 1 Mile NE
D10	USGS40000269819	1/2 - 1 Mile NE
D11	USGS40000269820	1/2 - 1 Mile NE
D12	USGS40000269821	1/2 - 1 Mile NE
15	USGS40000269830	1/2 - 1 Mile NNE

### FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

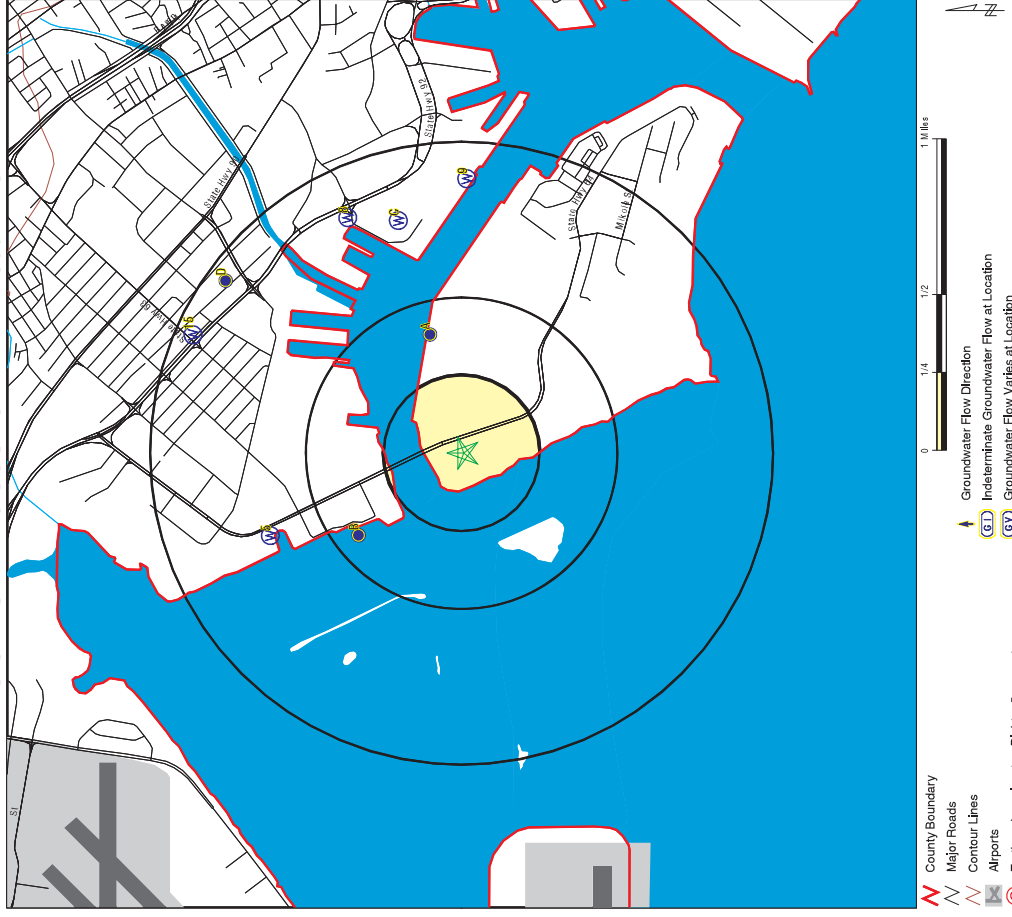
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

### STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	H18000000002315	1/4 - 1/2 Mile ENE
B4	H18000000002346	1/4 - 1/2 Mile NW
D13	H18000000002385	1/2 - 1 Mile NE
D14	H18000000002386	1/2 - 1 Mile NE
D16	H18000000002387	1/2 - 1 Mile NE

## PHYSICAL SETTING SOURCE MAP - 4138072.2s



SITE NAME: SOEST Facility  
 Sand Island Access Road  
 Honolulu HI 96819  
 LAT/LONG: 21.3118 / 157.8876

CLIENT: Enviro Svcs. and Trng. Center  
 CONTACT: Lisa Baxter  
 INQUIRY #: 4138072.2s  
 DATE: November 19, 2014 0:46 am

Copyright © 2014 EPR, Inc. © 2010 Hydrolics P/L 07/2008

**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS**

Map ID Direction Distance Elevation Database EDR ID Number  
**A1** **FED USGS** **USGS40000269749**

**ENE**  
**1/4 - 1/2 Mile**  
**Higher**

Org. Identifier: USGS-HI  
 Formal name: USGS Hawaii Water Science Center  
 Monoc identifier: USGS:211859157530401  
 Monoc name: 3-1853-01 SAND IS  
 Monoc type: Well  
 Monoc desc: Not Reported  
 Huc code: 20060000  
 Drainagearea Units: Not Reported  
 Contrib drainagearea units: Not Reported  
 Longitude: -157.8517006  
 Horiz Acc measure: Interpolated from map  
 Horiz coord refs: NAD83  
 Vert measure units: feet  
 Vert acc measure units: feet  
 Vercollec method: Interpolated from topographic map  
 Vert coord refs: HILOCAL  
 Aquifer name: Not Reported  
 Aquifer type: Not Reported  
 Construction date: 19730517  
 Welldepth units: ft  
 Wellholedepth units: Not Reported

Drainagearea value: Not Reported  
 Contrib drainagearea: Not Reported  
 Latitude: 21.3132247  
 Sourcemap scale: 24000  
 Horiz Acc measure units: seconds  
 Vert measure val: 2.00  
 Vertracc measure val: 1  
 Countrycode: US  
 Welldepth: 120  
 Wellholedepth: Not Reported

Ground-water levels, Number of Measurements: 0

**A2**  
**ENE**  
**1/4 - 1/2 Mile**  
**Lower**

Objectid: 814  
 Island: Oahu  
 Old name: Not Reported  
 Yr drilled: 1973  
 Driller: CONTINENTAL  
 Quad map: 13  
 Long633d: -157.881666667  
 Lat833d: 21.3133333333  
 Gps: 0  
 Owner user: State Of Hawaii  
 Well type: Not Reported  
 Ground el: Not Reported  
 Well depth: 120  
 Solid case: Not Reported  
 Use: UNU - Unused  
 Init head: Not Reported  
 Init head3: Not Reported  
 Init ci: 0  
 Test date: Not Reported  
 Test cbwmi: Not Reported

Well name: Sand Isle Wharf  
 Wid: 3-1853-001  
 Old number: Not Reported  
 Casing dia: Not Reported

Utm: -1  
 Old number: Not Reported

Perf case: Not Reported  
 Use year: Not Reported  
 Init head2: Not Reported

Test gpm: Not Reported  
 Test chlor: Not Reported

Ground-water levels, Number of Measurements: 0

**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS**

Test temp: Not Reported  
 Pump gpm: 0  
 Draft mg: Not Reported  
 Max chlor: Not Reported  
 Geology: Not Reported  
 Pump yr: 0  
 Draft yr: Not Reported  
 Bot hole: Not Reported  
 Bot perf: Not Reported  
 Spec capac: Not Reported  
 Pump mgd: Not Reported  
 Draft mgd: Not Reported  
 Pump depth: 30103  
 Aquil code: Not Reported  
 Latest hd: Not Reported  
 P#: Not Reported  
 T: Not Reported

Test unit: Not Reported  
 Head feet: Not Reported  
 Min chlor: Not Reported  
 Bot hole: Not Reported  
 Bot perf: Not Reported  
 Pump elev: Not Reported  
 Trnk: Not Reported  
 Wcr: 17-MAY-73  
 Surveyor: Not Reported  
 Site id: HI800000002315

**B3**  
**NW**  
**1/4 - 1/2 Mile**  
**Lower**

Org. Identifier: USGS-HI  
 Formal name: USGS Hawaii Water Science Center  
 Monoc identifier: USGS:211911157534001  
 Monoc name: 3-1953-01  
 Monoc type: Well  
 Monoc desc: Not Reported  
 Huc code: 20060000  
 Drainagearea Units: Not Reported  
 Contrib drainagearea units: Not Reported  
 Longitude: -157.8917003  
 Horiz Acc measure: Interpolated from map  
 Horiz coord refs: NAD83  
 Vert measure units: feet  
 Vert acc measure units: feet  
 Vercollec method: Interpolated from topographic map  
 Vert coord refs: HILOCAL  
 Aquifer name: Not Reported  
 Aquifer type: Not Reported  
 Construction date: 19760205  
 Welldepth units: ft  
 Wellholedepth units: ft

Drainagearea value: Not Reported  
 Contrib drainagearea: Not Reported  
 Latitude: 21.316558  
 Sourcemap scale: 24000  
 Horiz Acc measure units: seconds  
 Vert measure val: 8.00  
 Vertracc measure val: 2  
 Countrycode: US  
 Welldepth: 100  
 Wellholedepth: 120

Ground-water levels, Number of Measurements: 0

**B4**  
**NW**  
**1/4 - 1/2 Mile**  
**Lower**

Org. Identifier: USGS-HI  
 Formal name: USGS Hawaii Water Science Center  
 Monoc identifier: USGS:211911157534001  
 Monoc name: 3-1953-01  
 Monoc type: Well  
 Monoc desc: Not Reported  
 Huc code: 20060000  
 Drainagearea Units: Not Reported  
 Contrib drainagearea units: Not Reported  
 Longitude: -157.8917003  
 Horiz Acc measure: Interpolated from map  
 Horiz coord refs: NAD83  
 Vert measure units: feet  
 Vert acc measure units: feet  
 Vercollec method: Interpolated from topographic map  
 Vert coord refs: HILOCAL  
 Aquifer name: Not Reported  
 Aquifer type: Not Reported  
 Construction date: 19760205  
 Welldepth units: ft  
 Wellholedepth units: ft

Drainagearea value: Not Reported  
 Contrib drainagearea: Not Reported  
 Latitude: 21.316558  
 Sourcemap scale: 24000  
 Horiz Acc measure units: seconds  
 Vert measure val: 8.00  
 Vertracc measure val: 2  
 Countrycode: US  
 Welldepth: 100  
 Wellholedepth: 120

Ground-water levels, Number of Measurements: 0



**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS**

Objectid: 960  
 Island: Oahu  
 Old name: Not Reported  
 Yr drilled: 1976  
 Driller: CONTINENTAL  
 Quad map: 13  
 Long534d: -157.891666667  
 Lat834d: 21.316666667  
 Gps: 0  
 Owner user: State DAGS  
 Well type: Not Reported  
 Ground el: 8  
 Well depth: 120  
 Solid case: 100  
 Use: ABN - Sealed  
 Init head: 0  
 Init head3: Not Reported  
 Init cl: 0  
 Test date: 2/12/1976  
 Test down: 0.7  
 Test temp: Not Reported  
 Pump gpm: 0  
 Draft mgy: Not Reported  
 Max chlor: Not Reported  
 Geology: Not Reported  
 Pump yr: 0  
 Draft yr: Not Reported  
 Bot solid: -92  
 Spec capac: 393  
 Pump mgd: 0  
 Draft mgd: Not Reported  
 Pump depth: 30103  
 Aqu code: Not Reported  
 Latest hd: Not Reported  
 Pir: Not Reported  
 T: Not Reported

Wid: 3-1953-002  
 Well name: Salt Water  
 Aquifer type: Not Reported  
 Construction date: 19780101  
 Welldepth units: Not Reported  
 Wellholedepth: Not Reported  
 Ground-water levels, Number of Measurements: 0

**C6**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

Org. Identifier: USGS-HI  
 Formal name: USGS Hawaii Water Science Center  
 Monloc Identifier: USGS-21190315752402  
 Monloc name: 3-1952.03B  
 Monloc type: Well  
 Monloc desc: Not Reported  
 Huc code: 20060000  
 Drainagearea Units: Not Reported  
 Contrib drainagearea units: Not Reported  
 Longitude: -157.876145  
 Horiz Acc measure: 5  
 Horiz coord refs: Interpolated from map  
 Vert coord refs: NAD83  
 Vert measure units: feet  
 Vert accmeasure units: feet  
 Vertical collection method: Interpolated from topographic map  
 Vert coord refs: HILOCAL  
 Aquifername: Not Reported  
 Formation type: Not Reported  
 Aquifer type: Not Reported  
 Construction date: 19731115  
 Welldepth units: ft  
 Wellholedepth units: ft  
 Ground-water levels, Number of Measurements: 0

**FED USGS**  
**USGS40000269764**

**5**  
**NNW**  
**1/2 - 1 Mile**  
**Higher**

Org. Identifier: USGS-HI  
 Formal name: USGS Hawaii Water Science Center  
 Monloc Identifier: USGS-211926157534001  
 Monloc name: 3-1953.02  
 Monloc type: Well  
 Monloc desc: Not Reported  
 Huc code: 20060000  
 Drainagearea Units: Not Reported  
 Contrib drainagearea units: Not Reported  
 Longitude: -157.8917003  
 Horiz Acc measure: 5  
 Horiz Collection method: Interpolated from map  
 Horiz coord refs: NAD83  
 Vert measure units: feet  
 Vert accmeasure units: feet  
 Vertical collection method: Interpolated from topographic map  
 Vert coord refs: HILOCAL  
 Aquifername: Not Reported  
 Formation type: Not Reported

**FED USGS**  
**USGS40000269754**

**C7**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

Org. Identifier: USGS-HI  
 Formal name: USGS Hawaii Water Science Center  
 Monloc Identifier: USGS-211903157524301  
 Monloc name: 3-1952.03A  
 Monloc type: Well  
 Monloc desc: Not Reported  
 Huc code: 20060000  
 Drainagearea Units: Not Reported  
 Contrib drainagearea units: Not Reported  
 Longitude: -157.8758674  
 Horiz Acc measure: 5  
 Horiz Collection method: Interpolated from map  
 Horiz coord refs: NAD83  
 Vert measure units: feet  
 Vert accmeasure units: feet  
 Vertical collection method: Interpolated from topographic map  
 Vert coord refs: HILOCAL  
 Aquifername: Not Reported  
 Formation type: Not Reported

**FED USGS**  
**USGS40000269754**

**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS**

Aquifer type: Not Reported  
 Construction date: 19731115  
 Welldepth units: ft  
 Wellholedepth: 75  
 Wellholedepth units: ft

Ground-water levels, Number of Measurements: 0

Aquifer type: Not Reported  
 Construction date: 19731123  
 Welldepth units: ft  
 Wellholedepth: 65  
 Wellholedepth units: ft

Ground-water levels, Number of Measurements: 0

**8**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**      **FED USGS**      **USGS-40000269791**

Org. Identifier: USGS-HI  
 Formal name: USGS Hawaii Water Science Center  
 Monloc Identifier: USGS-21191315752303  
 Monloc name: 3-1852.03C  
 Monloc type: Well  
 Monloc desc: Not Reported  
 Huc code: 20060000  
 Drainagearea Units: Not Reported  
 Contrib drainagearea units: Not Reported  
 Longitude: -157.8759674  
 Horiz Acc measure: 1  
 Horiz Collection method: Interpolated from map  
 Horiz coord relsys: NAD83  
 Vert measure units: feet  
 Vert accmeasure units: feet  
 Verticalcollection method: Interpolated from topographic map  
 Vert coord relsys: HILOCAL  
 Aquifername: Not Reported  
 Formation type: Not Reported  
 Aquifer type: Not Reported  
 Construction date: 19731115  
 Welldepth units: ft  
 Wellholedepth units: ft

Ground-water levels, Number of Measurements: 0

**D10**  
**NE**  
**1/2 - 1 Mile**  
**Higher**      **FED USGS**      **USGS-40000269819**

Org. Identifier: USGS-HI  
 Formal name: USGS Hawaii Water Science Center  
 Monloc Identifier: USGS-211933157525401  
 Monloc name: 3-1952-35 W130-1 KAP  
 Monloc type: Well  
 Monloc desc: Not Reported  
 Huc code: 20060000  
 Drainagearea Units: Not Reported  
 Contrib drainagearea units: Not Reported  
 Longitude: -157.8789229  
 Horiz Acc measure: 1  
 Horiz Collection method: Interpolated from map  
 Horiz coord relsys: NAD83  
 Vert measure units: feet  
 Vert accmeasure units: feet  
 Verticalcollection method: Interpolated from topographic map  
 Vert coord relsys: HILOCAL  
 Aquifername: Not Reported  
 Formation type: Not Reported  
 Aquifer type: Not Reported  
 Construction date: 19600901  
 Welldepth units: ft  
 Wellholedepth units: ft

Ground-water levels, Number of Measurements: 0

**9**  
**East**  
**1/2 - 1 Mile**  
**Higher**      **FED USGS**      **USGS-40000269730**

Org. Identifier: USGS-HI  
 Formal name: USGS Hawaii Water Science Center  
 Monloc Identifier: USGS-211853157523601  
 Monloc name: 3-1852.01A-B  
 Monloc type: Well  
 Monloc desc: Not Reported  
 Huc code: 20060000  
 Drainagearea Units: Not Reported  
 Contrib drainagearea units: Not Reported  
 Longitude: -157.8759229  
 Horiz Acc measure: 1  
 Horiz Collection method: Interpolated from map  
 Horiz coord relsys: NAD83  
 Vert measure units: feet  
 Vert accmeasure units: feet  
 Verticalcollection method: Interpolated from topographic map  
 Vert coord relsys: HILOCAL  
 Aquifername: Not Reported  
 Formation type: Not Reported

TC4138072.2s Page A-13

**D11**  
**NE**  
**1/2 - 1 Mile**  
**Higher**      **FED USGS**      **USGS-40000269820**

Org. Identifier: USGS-HI  
 Formal name: USGS Hawaii Water Science Center  
 Monloc Identifier: USGS-211933157525402  
 Monloc name: 3-1952-36 W130-2 KAP  
 Monloc type: Well  
 Monloc desc: Not Reported  
 Huc code: 20060000  
 Drainagearea Units: Not Reported  
 Contrib drainagearea units: Not Reported  
 Longitude: -157.8789229  
 Horiz Acc measure: 5  
 Horiz Collection method: Interpolated from map  
 Horiz coord relsys: NAD83  
 Vert measure units: feet  
 Vert accmeasure units: feet  
 Verticalcollection method: Interpolated from topographic map  
 Vert coord relsys: HILOCAL  
 Aquifername: Not Reported  
 Formation type: Not Reported

TC4138072.2s Page A-14

**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS**

Aquifer type: Not Reported  
 Construction date: 19670601  
 Welldepth units: ft  
 Wellholedepth: Not Reported  
 Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

**D12 NE 1/2 - 1 Mile Higher** **FED USGS USGS40000269821**

Obj. Identifier: USGS-HI  
 Formal name: USGS Hawaii Water Science Center  
 Monitor Identifier: USGS:21183416762501  
 Monitor name: 3-1952-34 W130 KAPAL  
 Monitor type: Not Reported  
 Monitor desc: Not Reported  
 Puc code: 20800000  
 Drainagearea Units: Not Reported  
 Contrib drainagearea units: Not Reported  
 Longitude: -157.8792006  
 Horiz Acc measure: 1  
 Horiz Collection method: Interpolated from map  
 Horiz coord refs: NAD83  
 Vert measure units: feet  
 Vert measure val: 15.00  
 Vert acc measure units: feet  
 Vert acc measure val: 5  
 Vertical collection method: Interpolated from topographic map  
 Vert coord refs: HILocal  
 Aquifer name: Not Reported  
 Formation type: Not Reported  
 Aquifer type: Not Reported  
 Construction date: 19590410  
 Welldepth units: ft  
 Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

**D13 NE 1/2 - 1 Mile Higher** **HI WELLS HI800000002385**

Objid: 945  
 Island: Oahu  
 Old name: Not Reported  
 Yr drilled: 1960  
 Driller: SAMSON-SMOCK  
 Quad map: 13  
 Long634d: -157.87888889  
 Lat834d: 21.322777778  
 Gps: 0  
 Owner user: KS/Bishop Estate  
 Well type: Not Reported  
 Ground el: 15  
 Well depth: 250  
 Solid case: 20  
 Use: UNU - Unused  
 Init head: 12.9  
 Init head3: Not Reported  
 Test date: 11600  
 Test down: Not Reported  
 Test date: Not Reported

TC4138072.2s Page A-15

**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS**

Test unit: Not Reported  
 Pump gpm: 0  
 Draft mgy: Not Reported  
 Max chlor: Not Reported  
 Geology: QLS  
 Pump yr: 0  
 Ground yr: Not Reported  
 Draft yr: Not Reported  
 Bot hole: -235  
 Bot perf: -190  
 Spec capac: Not Reported  
 Pump mgt: Not Reported  
 Draft mgt: Not Reported  
 Pump elev: Not Reported  
 Pump depth: 30103  
 Aquil code: (1) 1-5-030.001  
 Latest hd: Not Reported  
 Wcr: 01-JAN-60  
 Pr: Not Reported  
 T: Not Reported  
 Surveyor: HI800000002385  
 Site id: HI800000002385

Test unit: Not Reported  
 Pump gpm: 0  
 Draft mgy: Not Reported  
 Max chlor: Not Reported  
 Geology: QLS  
 Pump yr: 0  
 Ground yr: Not Reported  
 Draft yr: Not Reported  
 Bot hole: -235  
 Bot perf: -190  
 Spec capac: Not Reported  
 Pump mgt: Not Reported  
 Draft mgt: Not Reported  
 Pump elev: Not Reported  
 Pump depth: 30103  
 Aquil code: (1) 1-5-030.001  
 Latest hd: Not Reported  
 Wcr: 01-JAN-60  
 Pr: Not Reported  
 T: Not Reported  
 Surveyor: HI800000002385  
 Site id: HI800000002385

**D14 NE 1/2 - 1 Mile Higher** **HI WELLS HI800000002386**

Objid: 946  
 Island: Oahu  
 Old name: Not Reported  
 Yr drilled: 1987  
 Driller: NAT WHITON  
 Quad map: 13  
 Long634d: -157.87888889  
 Lat834d: 21.322777778  
 Gps: 0  
 Owner user: KS/Bishop Estate  
 Well type: Not Reported  
 Ground el: 15  
 Well depth: 80  
 Solid case: 46  
 Use: Other  
 Init head: 0.3  
 Init head3: Not Reported  
 Test date: 11311  
 Test date: Not Reported  
 Test temp: 26.7  
 Test down: 27  
 Pump gpm: 0  
 Draft mgy: Not Reported  
 Max chlor: Not Reported  
 Geology: QLS  
 Pump yr: 0  
 Draft yr: Not Reported  
 Bot hole: -65  
 Bot perf: Not Reported  
 Spec capac: 19  
 Pump mgt: 0  
 Draft mgt: Not Reported  
 Pump elev: Not Reported  
 Pump depth: 30103  
 Aquil code: Not Reported  
 Latest hd: Not Reported  
 Wcr: Not Reported  
 Pr: Not Reported  
 T: Not Reported  
 Surveyor: HI800000002386  
 Site id: HI800000002386

Ground-water levels, Number of Measurements: 0

TC4138072.2s Page A-16

**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS**

Map ID: 15  
 Direction: NNE  
 Distance: 1/2 - 1 Mile  
 Elevation: Higher

Database: FED USGS USGS40000269630 EDR ID Number: USGS40000269630

Org. Identifier: USGS-HI  
 Formal name: USGS Hawaii Water Science Center  
 Monoc identifier: USGS:211839157530401  
 Monoc name: 3-1963.01  
 Monoc type: Well  
 Monoc desc: Not Reported  
 Hrc code: 20060000  
 Drainagearea Units: Not Reported  
 Contrib drainagearea units: Not Reported  
 Longitude: -157.8517005  
 Horiz Acc measure: 1  
 Horiz Collection method: Interpolated from map  
 Horiz coord refsys: NAD83  
 Vert measure units: feet  
 Vert measure val: 13.00  
 Vert acc measure units: feet  
 Vert acc measure val: 1  
 Vertical collection method: Interpolated from topographic map  
 Aquifername: HILOCAL  
 Formation type: Not Reported  
 Aquifer type: Not Reported  
 Construction date: 1971-07-01  
 Welldepth units: Not Reported  
 Wellholedepth units: Not Reported

Drainagearea values:  
 Contrib drainageareas: Not Reported  
 Latitude: 21.3243351  
 Source map scale: 2:4000  
 Horiz Acc measure units: seconds  
 Vert measure units: 13.00  
 Vert acc measure val: 1  
 Countrycode: US

Welldepth: Not Reported  
 Wellholedepth: Not Reported

Ground-water levels. Number of Measurements: 0

**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS**

Test temp: Not Reported  
 Pump gpm: 0  
 Draft mg: Not Reported  
 Max chlor: Not Reported  
 Geology: QLS  
 Pump yr: 0  
 Draft yr: Not Reported  
 Bot hole: -45  
 Bot perf: Not Reported  
 Spec capac: 24  
 Pump mgd: 0  
 Draft mgd: Not Reported  
 Pump depth: 301.03  
 Aquil code: Not Reported  
 Latest hd: Not Reported  
 Pfr: Not Reported  
 T: Not Reported

Test unit:  
 Head feet: Not Reported  
 Min chlor: Not Reported  
 Bot hole: -70  
 Bot perf: Not Reported  
 Pump elev: Not Reported  
 Trnk: (1) 1-5-030.002  
 Wcr: 01-JAN-59  
 Surveyor: Not Reported  
 Site id: HI860000002387

D16  
 NE  
 1/2 - 1 Mile  
 Higher

Database: HI WELLS HI860000002387

Objectid: 944  
 Island: Oahu  
 Old name: Not Reported  
 Yr drilled: 1959  
 Driller: NAT WHITON  
 Quad map: 13  
 Long633rd: -157.879166667  
 Lat834rd: 21.32306555556  
 Gps: 0  
 Owner user: KS/Bishop Estate  
 Well type: Not Reported  
 Ground el: 15  
 Wall depth: 85  
 Solid case: 60  
 Use: Other  
 Init head: 4  
 Init head3: Not Reported  
 Init cl: 0  
 Test date: Not Reported  
 Test ddown: 31.4

Well:  
 Well name: 3-1952-034  
 Well name: Kapalama

Utm:  
 Old number: -1  
 Casing dia: 130  
 12

Perf case: Not Reported  
 Use year: Not Reported  
 Init head2: Not Reported

Test gpm: 750  
 Test chlor: 18850

Ground-water levels. Number of Measurements: 0

## 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: 96819

Number of sites tested: 4

Area	Average Activity	% <= 4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.475 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.050 pCi/L	100%	0%	0%

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

### TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geological Survey  
 EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geological Survey  
 A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

### HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 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, 2005 and 2010 from the U.S. Fish and Wildlife Service.

### HYDROGEOLOGIC INFORMATION

AQUIFLOWR 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. Bekkman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services  
 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.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559  
 SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.



## PHYSICAL SETTING SOURCE RECORDS SEARCHED

### LOCAL / REGIONAL WATER AGENCY RECORDS

#### 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.

#### STATE RECORDS

Well Index Database

Source: Commission on Water Resource Management

Telephone: 808-587-0214

CWRM maintains a Well Index Database to track specific information pertaining to the construction and installation of production wells in Hawaii

### OTHER STATE DATABASE INFORMATION

#### 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

Epionters:

World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

### STREET AND ADDRESS INFORMATION

© 2010 Tele Atlas North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

## PROFESSIONAL QUALIFICATIONS

Name: **Sharla M. Nakashima**  
Title: Environmental Scientist  
Education: BS, Chemistry, University of Hawaii at Manoa, 2000  
Training: OSHA 40 Hour HAZWOPER  
DOT Hazardous Materials Handling  
Experience: EnviroServices & Training Center, LLC, Environmental Chemist, 2000 to Present.  
University of Hawaii, Chemistry Department, Graduate Research Assistant, 2000.

Ms. Nakashima's primary responsibilities are conducting Phase I and II environmental site assessments. She is also the lead person to conduct data QA/QC/validation/reduction. Ms. Nakashima possesses experience in operating global positioning system (GPS) instrumentation and conducting hazardous materials inventories/classifications/segregations/compatibility determinations.

## PAST PROJECT EXPERIENCE

Sharita M. Nakashima

**Phase I Environmental Site Assessments on the Islands of Oahu, Maui, Kauai, Hawaii, Lanai; Environmental Professional.** Ms. Nakashima has conducted numerous Phase I environmental site assessments throughout the State of Hawaii in accordance with generally accepted Phase I industry protocol as described in the ASTM E-1527 standard and to satisfy "all appropriate inquiry" as defined in 42 United States Code (U.S.C.) §9601(35)(B). Work sites included commercial, industrial, agricultural, condemned, and residential land ranging in size from small properties (less than 2.0 acres) to larger properties (greater than 300.0 acres).

**Phase II Environmental Site Assessments/Site Screening Assessments on the Islands of Oahu, Maui, Kauai, Hawaii, Lanai; Project Manager.** Ms. Nakashima has performed numerous Phase II environmental site assessments and site screening assessments throughout the State of Hawaii. Projects included surface soil investigation utilizing both multi-incremental and discrete sampling protocols and subsurface soil/groundwater investigations using hand tools, direct-push rig, and hollow-stem augering techniques. Contaminants investigated included petroleum/petroleum-related compounds, heavy metals, pesticides/herbicides, PCBs, and dioxins/furans.

**Phase II Environmental Site Assessments/Site Screening Activities; GPS Team Leader.** Ms. Nakashima utilized Trimble Navigation Global Positioning System (GPS) instrumentation and Geographical Information Systems (GIS) applications for numerous projects to identify/locate pre-determined sample locations, document sample locations or site features, and/or identify property limits. GIS data obtained were incorporated in both the planning and reporting phases of applicable projects.

**Underground Storage Tank (UST) Closure and Release Response; Environmental Scientist.** Ms. Nakashima has closed numerous UST systems throughout the State of Hawaii. Closure and release response activities were performed in accordance with Hawaii Administrative Rules 11-281. Duties included coordination and management of various subcontractors, documentation of closure (both removal and close in place), release assessment sample collection, site remediation, waste profiling/packaging/disposal, communication with State regulators, and report preparation.

**Voluntary Response Program (VRP) Site Assessment and Remediation; Environmental Scientist/Project Manager.** Ms. Nakashima has served as both environmental scientist and project manager on several VRP projects on the Island of Oahu. Ms. Nakashima worked on all phases of the VRP, including project scoping, planning document preparation, field sampling, data assessment, contaminated media removal/remediation, confirmation sampling, and report preparation. Contaminants addressed included petroleum/petroleum-related compounds, heavy metals, pesticides/herbicides, PCBs, and dioxins/furans.

**Industrial Wastewater Discharge Permitting (IWDP), Environmental Scientist.** Ms. Nakashima acquired an IWDP which authorized the facility to discharge industrial wastewater into the City and County of Honolulu's publicly owned treatment works (POTW) under Chapter 14 of the Revised Ordinances of Honolulu.

**Underground Injection Control (UIC) Permitting, Environmental Scientist.** Ms. Nakashima acquired a UIC permit for two dry wells located at a car rental facility in Kona, Hawaii. Work included investigation and application procedures required by the Hawaii Department of Health-State Drinking Water Branch.

**Hazardous Materials Inventory, Environmental Chemist.** Ms. Nakashima conducted a hazardous materials survey at over sixty (60) public intermediate and high schools on the islands of Oahu, Kauai, Maui, Molokai, Lanai and Hawaii. Work included identification and categorizing of over 30,000 hazardous materials, conducting photographic documentation, and determining NFPA labeling requirements for classroom storage areas potentially containing hazardous materials.

**Household Hazardous Waste (HHW) Collection, Environmental Scientist.** Ms. Nakashima assisted with the collection of HHW in Honolulu, Lahaina, Wailuku, Hilo, and Kona. Tasks included identification, packaging, labeling, transportation and disposition of HHW in accordance with OSHA, EPA, and DOT protocol.

**Hazardous Waste Characterization and/or Disposal, Environmental Scientist.** Ms. Nakashima assisted in the disposal of various chemicals and hazardous wastes at an abandoned laboratory in Waimanalo, Oahu. Additional sites included several public intermediate and high schools. Tasks included identification, packaging, labeling, transportation and disposition of hazardous waste in accordance with OSHA, EPA, DOT, and local regulations.

**Asbestos Air-Monitoring, City and County – Department of Agriculture, Environmental Scientist.** Ms. Nakashima assisted and/or conducted air monitoring using low volume sampling pumps during asbestos abatement activities.

**Laboratory Studies, Research Assistant.** Ms. Nakashima conducted studies of protein conformational dynamics through photothermal methods and purified horse heart myoglobin within thin layered polymer slides and organic solvents. Lab experience also included utilization of Gas Chromatography (GC)-Mass Spectrometry (MS), High Performance Liquid Chromatography (HPLC), Nuclear Magnetic Resonance (NMR), Infrared (IR) spectrometry, and Ultraviolet/Visible (UV-VIS) Spectrometer.

---

# **APPENDIX D:**

Traffic Impact Report,  
Wilson Okamoto Corporation, January 2015.





Traffic Impact Report

**UH SOEST and METC Facility  
at Sand Island**



Prepared for:  
University of Hawaii

Prepared by:  
Wilson Okamoto Corporation

January 2015

***TRAFFIC IMPACT REPORT***

***FOR THE  
UNIVERSITY OF HAWAII  
SOEST AND METC FACILITY  
at Sand Island***

*Prepared for:*  
University of Hawaii

*Prepared by:*  
Wilson Okamoto Corporation  
1907 S. Beretania Street, Suite 400  
Honolulu, Hawaii 96826  
WOC Ref #10056-02

January 2015

**TABLE OF CONTENTS**

	Page
I. Introduction .....	1
A. Purpose of Study .....	1
B. Scope of Study .....	1
II. Project Description .....	1
A. Location .....	1
B. Project Characteristics .....	3
III. Existing Traffic Conditions .....	3
A. Area Roadway System .....	3
B. Traffic Volumes and Conditions .....	5
1. General .....	5
a. Field Investigation .....	5
b. Capacity Analysis Methodology .....	5
2. Existing Peak Hour Traffic .....	6
IV. Projected Traffic Conditions .....	8
A. Site-Generated Traffic .....	8
B. Through-Traffic Forecasting Methodology .....	8
C. Total Traffic Volumes With Project .....	9
V. Recommendations .....	9
VI. Conclusion .....	9

**LIST OF FIGURES**

FIGURE 1	Location Map and Vicinity Map
FIGURE 2	Project Site Plan
FIGURE 3	Existing Peak Periods of Traffic

**LIST OF APPENDICES**

APPENDIX A	Existing Traffic Count Data
APPENDIX B	Level of Service Definitions
APPENDIX C	Capacity Analysis Calculations
	Existing Peak Period Traffic Analysis

## I. INTRODUCTION

### A. Purpose of Study

The purpose of this study is to assess traffic conditions with the development of the University of Hawaii (UH) School of Ocean and Earth Science and Technology (SOEST) facility at Sand Island on the island of Oahu. The new SOEST facility will be located adjacent to the existing Honolulu Community College (HCC) Marine Education Training Center (METC) facility that includes a two-story building and a floating dock.

### B. Scope of Study

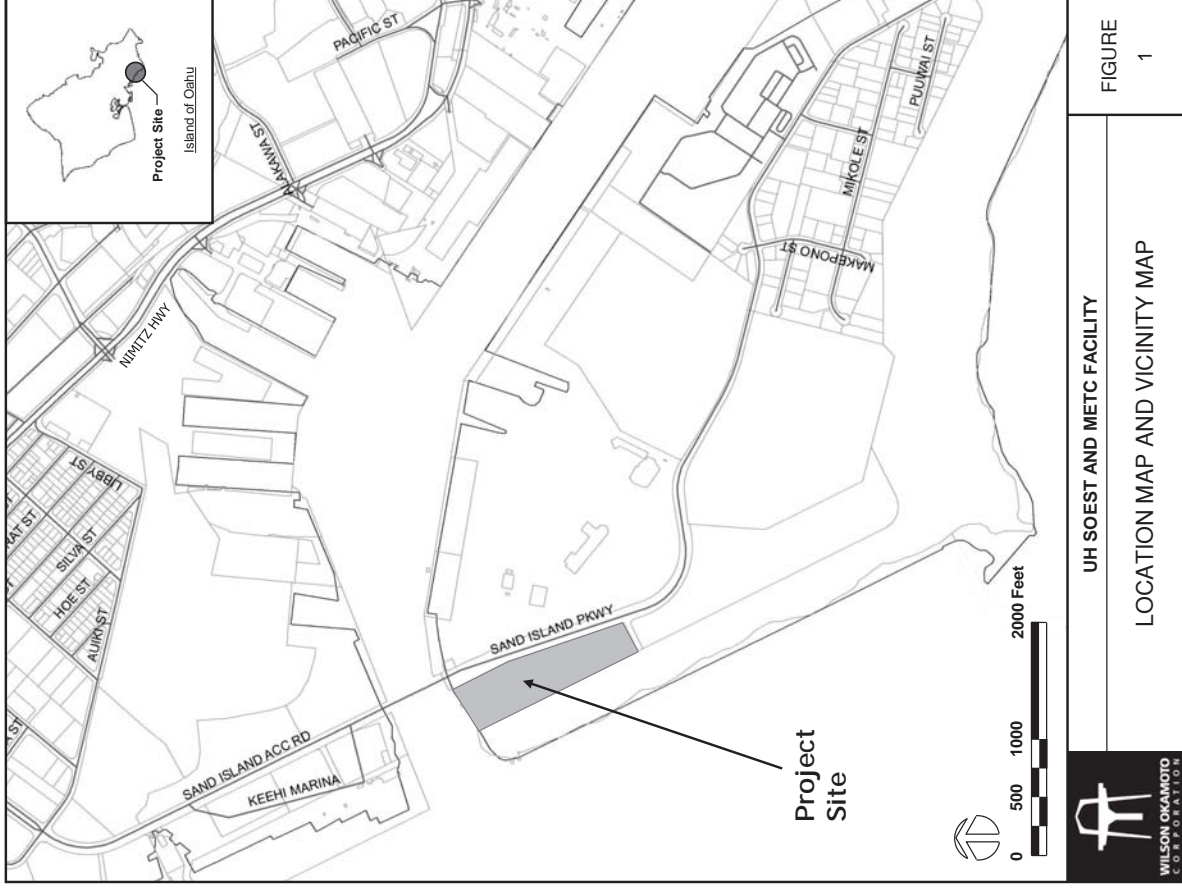
This report presents the findings and conclusions of the traffic study, the scope of which includes:

1. Description of the proposed project.
2. Evaluation of baseline roadway and traffic operations in the vicinity.
3. Analysis of future roadway and traffic conditions without the proposed project.
4. Analysis and development of trip generation characteristics for the proposed project.
5. Superimposing site-generated traffic over future traffic conditions.
6. The identification and analysis of traffic impacts resulting from the proposed project.
7. Recommendations of improvements, if appropriate, that would mitigate the traffic impacts resulting from the proposed project.

## II. PROJECT DESCRIPTION

### A. Location

The project site is located adjacent to Sand Island Parkway on the northwest corner of Sand Island on the island of Oahu (see Figure 1). The site is identified by Tax Map Key (TMK) 1-5-41: portions of 6 and 130 and is bounded by Sand Island Parkway, Sand Island State Recreational Area and Shoreline fronting the Kalihi Channel of Honolulu Harbor. Access to the development will be provided via an existing access road off Sand Island Parkway.



UH SOEST AND METC FACILITY

LOCATION MAP AND VICINITY MAP

FIGURE  
1

**B. Project Characteristics**

The project site for the proposed UH SOEST facility currently houses the Marine Education Training Center (METC) facility which consists of a two-story building that provides educational training programs for the repair and maintenance of marine vessels and engines, and a floating dock currently used by METC, the UH Sailing team, and the Polynesian Voyaging Society. Due to the closure of the UH Marine Center (UHMC) at the Pier 45 SNUG Harbor Facility, SOEST is relocating its small boat operations to this new facility at Sand Island. The proposed facility is expected to include a laydown/storage area for relocated storage containers, small vessels and trailers, and parking for SOEST personnel and visitors. In addition, SOEST plans to erect tents and/or prefabricated structures to house geologic samples. In conjunction with the proposed facility, SOEST plans to replace the existing floating dock with a larger floating dock for use by SOEST, METC, the UH Sailing Team, and the UH Student Recreation Service. The proposed facility is expected to be completed and occupied by the Year 2016. Figure 2 shows the proposed project site plan.

**III. EXISTING TRAFFIC CONDITIONS**

**A. Area Roadway System**

The proposed UH SOEST facility will be located adjacent to Sand Island Parkway on the northwest corner of Sand Island. In the vicinity of the project site, Sand Island Parkway is a predominately four-lane, two-way divided roadway that connects to Sand Island Access Road north of the project site. Near the southeast corner of the project site, Sand Island Parkway intersects an access road for the Horizon Lines terminal facility. At this signalized intersection, both approaches of Sand Island Parkway have an exclusive left-turn lane, one through lane, and a shared through and right-turn lane. It should be noted that U-turns are allowed on both approaches of Sand Island Parkway for all vehicles except trucks. The westbound approach of the Horizon Lines access road has a shared left-turn and through lane, and an exclusive right-turn lane. The eastbound approach of the intersection is comprised of the access road that will serve the SOEST and METC facilities. This approach has one lane that serves all traffic movements.



**B. Traffic Volumes and Conditions**

**1. General**

**a. Field Investigation**

Field investigations were conducted on November 25, 2014 and consisted of manual turning movement count surveys during the morning peak hours between 6:00 AM and 9:00 AM, and the afternoon peak hours between 3:00 PM and 6:00 PM at the intersection of Sand Island Parkway with the access road for the Horizon Lines terminal facility. Appendix A includes the traffic count data.

**b. Capacity Analysis Methodology**

The highway capacity analysis performed in this study is based upon procedures presented in the "Highway Capacity Manual", Transportation Research Board, 2000, and the "Synchro" software, developed by Trafficware. The analysis is based on the concept of Level of Service (LOS) to identify the traffic impacts associated with traffic demands during the peak periods of traffic.

LOS is a quantitative and qualitative assessment of traffic operations. Levels of Service are defined by LOS "A" through "F"; LOS "A" representing ideal or free-flow traffic operating conditions and LOS "F" unacceptable or potentially congested traffic operating conditions.

"Volume-to-Capacity" (v/c) ratio is another measure indicating the relative traffic demand to the road carrying capacity. A v/c ratio of one (1.00) indicates that the roadway is operating at or near capacity. A v/c ratio of greater than 1.00 indicates that the traffic demand exceeds the road's carrying capacity. The LOS definitions are included in Appendix B.

**2. Existing Peak Hour Traffic**

Figure 3 shows the existing AM and PM peak period traffic volumes and operating conditions. The AM peak hour of traffic generally occurs between 6:00 AM and 7:00 AM. The PM peak hour of traffic general occurs between the hours of 3:00 PM and 4:00 PM. The analysis is based on these peak hour time periods to assess traffic conditions with the proposed project. LOS calculations are included in Appendix C.

At the intersection with the Horizon Lines access road, Sand Island Parkway carries 400 vehicles northbound and 947 vehicles southbound during the AM peak period. During the PM peak period, the overall traffic volume is lower with Sand Island Parkway carrying 648 vehicles northbound and 488 vehicles southbound. Due to the presence of shipping container handling facilities and industrial developments in the vicinity, a number of large vehicles were observed on both approaches of the roadway during the peak periods. Approximately 15% of the vehicles observed along Sand Island Parkway were large vehicles during the AM peak period while approximately 5% of the vehicles during the PM peak period were large vehicles. Both approaches of Sand Island Parkway operate at LOS "B" during the AM peak period and LOS "A" during the PM peak period.

The Horizon Lines access road approach of the intersection carries 39 vehicles westbound during the AM peak period and 68 vehicles westbound during the PM peak period. Since the access road services the adjacent Horizon Lines shipping container handling facility, a number of large vehicles were observed on this approach during the peak periods. Approximately 50% of the vehicles observed on this approach were large vehicles during the AM peak period while approximately 15% of the vehicles during the PM peak period were large vehicles. The Horizon Lines access road approach operates at LOS "C" during both peak periods.

The eastbound approach of the intersection is comprised of an access road that will serve the proposed SOEST and METC facilities. This approach carries a low volume of vehicles throughout the day with 21 vehicles and 14



vehicles observed on this approach during the AM and PM peak periods, respectively. The eastbound approach operates at LOS "C" during both peak periods.

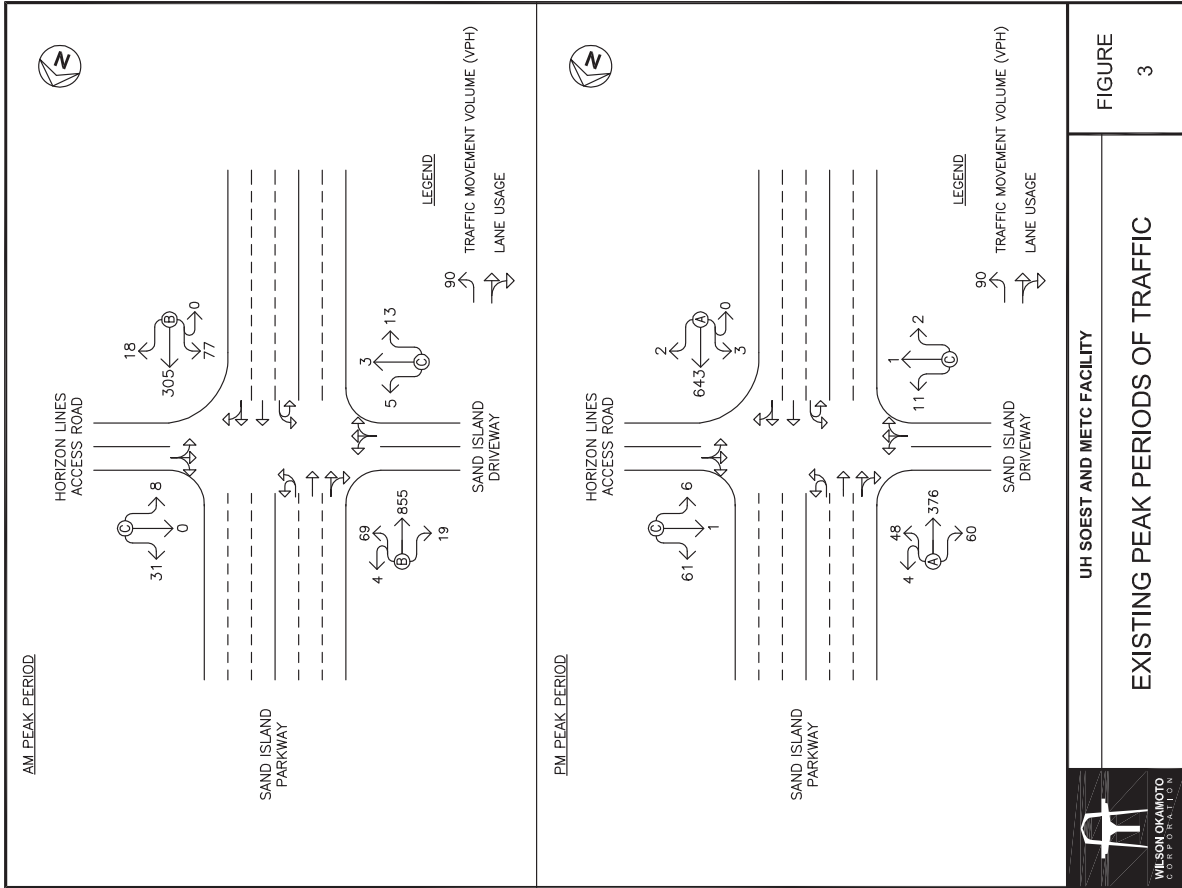
**IV. PROJECTED TRAFFIC CONDITIONS**

**A. Site-Generated Traffic**

The proposed SOEST facility is located adjacent to an existing METC facility. Trips associated with the existing METC facility and users of the existing floating dock are encompassed by the traffic data collected during the field investigations and are not expected to increase by the Year 2016. Trips associated with the SOEST facility are expected to be divided into two categories: trips associated with the relocation of existing facilities and trips associated with the subsequent use of the facility. Upon completion of the proposed project, SOEST estimates that the relocation of their existing small boat operations from Pier 45 to Sand Island will take approximately 3-4 months. During this period, an average of 1-2 large vehicles and 2-3 small vehicles are expected to access the site per day with all of these trips assumed to occur during off-peak periods. After the initial relocation phase, SOEST estimates an average of approximately one large vehicle and 2-3 small vehicles expected to access the site per day with all of these trips assumed to occur during off-peak periods. As such, the proposed facility is not expected to generate additional vehicles during the AM and PM peak periods since most or all of the trips generated by the facility are expected to occur during off-peak periods.

**B. Through Traffic Forecasting Methodology**

The travel forecast is based upon historical traffic count data obtained from the State DOT, Highways Division at a survey station located along Sand Island Parkway in the vicinity of the project site. The historical data indicates relatively stable traffic volumes along Sand Island Parkway. In addition, this section of Sand Island Parkway serves a number of established facilities such as the Sand Island Wastewater Treatment Plant, Sand Island State Park, and shipping container handling facilities similar to the Horizon Lines terminal facility, and future development in the immediate future is not expected in the vicinity at this time. As such, Year 2016



UH SOEST AND METC FACILITY  
EXISTING PEAK PERIODS OF TRAFFIC  
FIGURE 3

traffic demands along Sand Island Parkway are expected to remain similar to existing conditions.

**C. Total Traffic Volumes With Project**

Traffic volumes at the intersection of Sand Island Parkway with the Horizon Lines access road are expected to be similar to existing conditions with the development of the proposed SOEST and METC facility. As previously discussed, ambient growth in traffic is not expected along Sand Island Parkway and the proposed project is not expected to generate additional site-generated vehicles during the AM and PM peak periods. As such, the Sand Island Parkway approaches of the intersection are expected to continue operating at LOS "B" or better during both peak periods while the Horizon Lines access road approach is expected to continue operating at LOS "C" during both peak periods. Similarly, the eastbound approach of the intersection is expected to continue operating at LOS "C" during both peak periods.

**V. RECOMMENDATIONS**

Based on the analysis of the traffic data, the following are the recommendations of this study to be incorporated in the project design.

1. Maintain sufficient sight distance for motorists to safely enter and exit the project driveway.
2. Provide adequate on-site loading and off-loading service areas and prohibit off-site loading operations.
3. Provide adequate turn-around area for vehicles to maneuver on the project site to avoid vehicle-reversing maneuvers onto public roadways.
4. Provide sufficient turning radii at all project driveways/roadways to avoid or minimize vehicle encroachments to oncoming traffic lanes.

**VI. CONCLUSION**

Due to the closure of the UH Marine Center (UHMC) at the Pier 45 SNUG Harbor Facility, the UH School of Ocean and Earth Science and Technology (SOEST) is developing a new facility at Sand Island. The proposed facility and the adjacent Marine Education Training Center (METC) facility are not expected to generate additional trips during the AM and PM peak periods. As such, with the implementation of the aforementioned

recommendations, traffic operations with the proposed SOEST and METC facility are expected to remain similar to existing conditions.

**Wilson Okamoto Corporation**  
 1907 S. Beretania Street, Suite 400  
 Honolulu, HI 96826

Counted By: KJC, TO  
 Counters: D4-3888, D4-3889  
 Weather: Clear

File Name : SandIsPkwy AM  
 Site Code : 00000001  
 Start Date : 1/25/2014  
 Page No : 1

**APPENDIX A**  
**EXISTING TRAFFIC COUNT DATA**

Start Time	Southbound			Westbound			Sand Island Parkway			Access Road			Northbound			Eastbound			Int. Total
	Left	Thru	Right	Left	Thru	Right	App. Total	Peds	Thru	Left	Thru	Right	App. Total	Peds	Thru	Left	Thru	Right	
06:00 AM	3	0	3	2	69	3	74	0	2	0	1	3	10	194	6	0	210	293	356
06:15 AM	3	0	3	5	28	1	34	0	7	1	7	9	180	5	0	196	306	356	
06:30 AM	2	0	3	2	30	2	34	0	2	0	3	5	20	190	6	0	216	306	
06:45 AM	0	0	0	0	30	2	32	0	2	0	0	2	14	180	6	0	196	255	
06:00 AM	1	0	0	0	58	0	58	0	0	0	0	1	3	91	6	0	100	165	
06:15 AM	1	0	0	0	58	0	58	0	0	0	0	1	3	91	6	0	100	165	
06:30 AM	0	0	0	0	54	0	54	0	0	0	0	4	5	117	1	0	123	189	
06:45 AM	0	0	0	0	50	0	50	0	0	0	0	6	11	96	3	0	110	180	
Total	8	0	0	2	215	3	220	0	0	0	0	16	26	388	13	0	427	697	
Grand Total	25	0	48	191	609	9	818	26	342	5	42	76	120	1688	54	0	1862	2830	
Apprch %	33.8	0	64.9	23.3	74.4	1.1	74.4	34.2	34.2	0.1	5.3	55.3	6.4	90.7	2.9	0	0	0	0
Total %	0.9	0	1.7	6.7	21.5	0.3	28.9	0.9	0.9	0.1	1.5	2.7	4.2	59.6	1.9	0	0	0	0

Peak Hour for Entire Intersection Begins at 06:00 AM  
 Peak Hour Analysis From 06:00 AM to 06:45 AM - Peak 1 of 1

Start Time	Southbound			Westbound			Sand Island Parkway			Access Road			Northbound			Eastbound			Int. Total
	Left	Thru	Right	Left	Thru	Right	App. Total	Peds	Thru	Left	Thru	Right	App. Total	Peds	Thru	Left	Thru	Right	
06:00 AM	2	0	3	2	69	3	74	0	2	0	1	3	10	194	6	0	210	293	353
06:15 AM	2	0	3	5	28	1	34	0	7	1	7	9	180	5	0	196	305	353	
06:30 AM	0	0	0	0	30	2	32	0	2	0	0	2	14	180	6	0	216	305	
06:45 AM	0	0	0	0	30	2	32	0	2	0	0	2	14	180	6	0	216	255	
Total	4	0	6	16	157	6	169	2	22	0	0	1	5	76	2	0	87	1206	
% App. Total	43.8	0	56.2	26.2	71.4	2.4	71.4	23.8	23.8	0.3	6.1	61.9	6.1	91.8	2.2	0	87.5	1206	
PHF	.583	.000	.750	.667	.642	.761	.583	.625	.625	.250	.342	.750	.663	.840	.792	.865	.854		

**Wilson Okamoto Corporation**  
1907 S. Beretania Street, Suite 400  
Honolulu, HI 96826

Counted By: TO  
Counters: D4-3889  
Weather: Clear

File Name : Trucks AM  
Site Code : 00000001  
Start Date : 1/25/2014  
Page No : 1

Start Time	Southbound			Sand Island Parkway Westbound			Northbound			Sand Island Parkway Eastbound			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	6	9	0	0	29	5	0	2	6	29	6	0	0
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	22	0	0	106	0	0	16	52	0	0	0	68
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	2	22	0	0	250	0	0	76	149	0	0	0	225
Apprch %	28	97.2	0	0	33.8	0	0	13.9	66.2	0	0	0	0
Total %	0.4	0	0	0	45.8	0	0	13.9	27.3	0	0	0	41.2

Start Time	Southbound			Sand Island Parkway Westbound			Northbound			Sand Island Parkway Eastbound			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	6	9	0	0	28	1	0	8	9	28	8	0	0
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	2	0	0	0	238	12	0	76	149	0	0	0	225
Apprch %	38	0	0	0	95.2	4.8	0	26.8	66.2	0	0	0	0
Total %	3.8	0	0	0	43.6	2.2	0	26.8	51.7	0	0	0	0

Start Time	Southbound			Sand Island Parkway Westbound			Northbound			Sand Island Parkway Eastbound			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0

File Name : SandisPkwy U-Turns AM  
Site Code : 00000001  
Start Date : 1/25/2014  
Page No : 1

Counted By: KC, TO  
Counters: D4-3888, D4-3889  
Weather: Clear



**Wilson Okamoto Corporation**  
 1907 S. Beretania Street, Suite 400  
 Honolulu, HI 96826

Counted By: TO  
 Counters: D4-3890  
 Weather: Clear

File Name : Trucks PM  
 Site Code : 0000001  
 Start Date : 11/25/2014  
 Page No : 1

Start Time	Southbound			Westbound			Access Road			Eastbound			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
03:00 PM	2	0	0	13	0	0	2	53	16	0	0	0	290
03:15 PM	1	0	0	13	0	0	2	53	16	0	0	0	244
03:30 PM	3	0	0	12	0	0	2	53	16	0	0	0	244
03:45 PM	0	0	0	11	0	0	2	53	16	0	0	0	294
04:00 PM	0	0	0	13	0	0	2	53	16	0	0	0	288
04:15 PM	1	0	0	13	0	0	2	53	16	0	0	0	288
04:30 PM	0	0	0	12	0	0	2	53	16	0	0	0	244
04:45 PM	0	0	0	11	0	0	2	53	16	0	0	0	294
05:00 PM	1	0	0	13	0	0	2	53	16	0	0	0	288
05:15 PM	0	0	0	12	0	0	2	53	16	0	0	0	244
05:30 PM	0	0	0	11	0	0	2	53	16	0	0	0	294
05:45 PM	0	0	0	10	0	0	2	53	16	0	0	0	247
Total	7	4	0	103	0	0	24	277	74	0	0	0	624
Grand Total	68	39	0	103	0	0	29	293	74	0	0	0	2522
Approch %	68	39	0	103	0	0	29	293	74	0	0	0	947
Total %	0.3	0.2	0	0.3	0	0	0.1	0.3	0.2	0	0	0	37.5
03:00 PM	13	0	0	173	1	0	14	0	0	1	0	0	100
03:15 PM	13	0	0	126	0	0	6	0	0	1	0	0	100
03:30 PM	3	0	0	173	0	0	2	0	0	1	0	0	98
03:45 PM	12	0	0	133	0	0	3	0	0	2	0	0	103
04:00 PM	13	0	0	173	1	0	6	0	0	1	0	0	100
04:15 PM	13	0	0	126	0	0	6	0	0	1	0	0	98
04:30 PM	3	0	0	173	0	0	2	0	0	1	0	0	98
04:45 PM	12	0	0	133	0	0	3	0	0	2	0	0	103
05:00 PM	13	0	0	173	1	0	6	0	0	1	0	0	100
05:15 PM	13	0	0	126	0	0	6	0	0	1	0	0	98
05:30 PM	3	0	0	173	0	0	2	0	0	1	0	0	98
05:45 PM	12	0	0	133	0	0	3	0	0	2	0	0	103
Total	53	0	0	605	1	0	11	0	0	2	0	0	397
Total	53	0	0	605	1	0	11	0	0	2	0	0	397
% App. Total	11.3	1.9	0	13.3	0.2	0	2.5	0	0	0.5	0	0	15.1
Total Volume	6	46	0	3	605	0	609	0	0	14	0	0	1073
PHF	.500	.250	.958	.883	.375	.874	.250	.875	.458	.250	.500	.667	.912

Start Time	Southbound			Westbound			Access Road			Eastbound			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
03:00 PM	2	0	0	13	0	0	2	53	16	0	0	0	290
03:15 PM	1	0	0	13	0	0	2	53	16	0	0	0	244
03:30 PM	3	0	0	12	0	0	2	53	16	0	0	0	244
03:45 PM	0	0	0	11	0	0	2	53	16	0	0	0	294
04:00 PM	0	0	0	13	0	0	2	53	16	0	0	0	288
04:15 PM	1	0	0	13	0	0	2	53	16	0	0	0	288
04:30 PM	0	0	0	12	0	0	2	53	16	0	0	0	244
04:45 PM	0	0	0	11	0	0	2	53	16	0	0	0	294
05:00 PM	1	0	0	13	0	0	2	53	16	0	0	0	288
05:15 PM	0	0	0	12	0	0	2	53	16	0	0	0	244
05:30 PM	0	0	0	11	0	0	2	53	16	0	0	0	294
05:45 PM	0	0	0	10	0	0	2	53	16	0	0	0	247
Total	7	4	0	103	0	0	24	277	74	0	0	0	624
Grand Total	68	39	0	103	0	0	29	293	74	0	0	0	2522
Approch %	68	39	0	103	0	0	29	293	74	0	0	0	947
Total %	0.3	0.2	0	0.3	0	0	0.1	0.3	0.2	0	0	0	37.5

File Name : SandisPkwy PM  
 Site Code : 0000001  
 Start Date : 11/25/2014  
 Page No : 1



Start Time	Sand Island Parkway			Groups Printed - Unshifted			Total	App. Total	Westbound	Northbound	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
	Southbound	Westbound	Northbound	Southbound	Westbound	Northbound											
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Int. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Hour Analysis From 02:45 PM to 05:30 PM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 03:00 PM

APPENDIX B  
 LEVEL OF SERVICE DEFINITIONS

## LEVEL OF SERVICE DEFINITIONS

### LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

**Level of Service (LOS)** for signalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. Specifically, level-of-service (LOS) criteria are stated in terms of the average control delay per vehicle, typically a 15-min analysis period. The criteria are given in the following table.

**Table 1: Level-of-Service Criteria for Signalized Intersections**

Level of Service	Control Delay per Vehicle (sec/veh)
A	≤10.0
B	>10.0 and ≤20.0
C	>20.0 and ≤35.0
D	>35.0 and ≤55.0
E	>55.0 and ≤80.0
F	>80.0

Delay is a complex measure and depends on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group.

**Level of Service A** describes operations with low control delay, up to 10 sec per vehicle. This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.

**Level of Service B** describes operations with control delay greater than 10 and up to 20 sec per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.

**Level of Service C** describes operations with control delay greater than 20 and up to 35 sec per vehicle. These higher delays may result from only fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

**Level of Service D** describes operations with control delay greater than 35 and up to 55 sec per vehicle. At level of service D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

**Level of Service E** describes operation with control delay greater than 55 and up to 80 sec per vehicle. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent.

**Level of Service F** describes operations with control delay in excess of 80 sec per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity lane groups. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.

**APPENDIX C**  
**CAPACITY ANALYSIS CALCULATIONS**  
**EXISTING PEAK PERIOD TRAFFIC ANALYSIS**

**HCM Signalized Intersection Capacity Analysis**  
**3: Sand Island Parkway & Horizon Lines Driveway/Sand Island Driveway**      12/19/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Volume (vph)	5	3	13	8	0	31	77	305	18	4	855
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	0.95
Frb. ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frb. ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.99	0.92	1.00	0.85	1.00	0.99	1.00	0.99	1.00	1.00	1.00
Flt Protected	0.99	0.99	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1672	1672	1203	1077	1570	3113	1570	3128	1570	3128	1570
Flt Permitted	0.92	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1551	1551	1267	1077	1570	3113	1570	3128	1570	3128	1570
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	6	4	16	10	0	38	94	372	22	5	84
RTOR Reduction (vph)	0	15	0	0	0	36	0	4	0	0	0
Lane Group Flow (vph)	0	11	0	0	10	2	94	390	0	0	1064
Confl. Peds. (#/hr)	4	4	4	4	4	4	4	4	4	4	4
Heavy Vehicles (%)	2%	2%	2%	50%	50%	50%	15%	15%	15%	15%	15%
Turn Type	Perm	NA	NA	Perm	NA	Perm	Prot	NA	Prot	Prot	NA
Protected Phases	8	8	8	4	4	4	1	6	5	5	2
Permitted Phases	8	8	8	4	4	4	4	6	5	5	2
Actuated Green, G (s)	3.5	3.5	3.5	3.5	3.5	3.5	7.0	32.7	6.9	6.9	32.6
Effective Green, g (s)	3.5	3.5	3.5	3.5	3.5	3.5	7.0	32.7	6.9	6.9	32.6
Actuated g/C Ratio	0.06	0.06	0.06	0.06	0.06	0.06	0.12	0.56	0.12	0.12	0.56
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	93	76	64	189	1752	186	1755	186	1755	186	1755
v/s Ratio Prot	0.01	0.12	0.13	0.04	0.04	0.04	0.13	0.06	0.06	0.06	0.34
v/c Ratio	0.12	0.13	0.04	0.04	0.04	0.04	0.22	0.22	0.48	0.48	0.61
Uniform Delay, d1	25.8	25.9	25.7	23.9	23.9	23.9	6.3	23.9	8.5	8.5	23.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.8	0.2	2.1	2.1	2.1	0.1	1.9	0.6	0.6	1.9
Delay (s)	26.4	26.4	26.6	25.9	26.0	26.0	6.4	25.9	9.1	9.1	25.9
Level of Service	C	C	C	C	C	C	A	C	C	C	A
Approach Delay (s)	26.4	26.1	26.1	26.1	26.1	26.1	10.2	26.1	10.4	10.4	26.1
Approach LOS	C	C	C	C	C	C	B	B	B	B	B
<b>Intersection Summary</b>											
HCM 2000 Control Delay	11.0										
HCM 2000 Volume to Capacity ratio	0.55										
Actuated Cycle Length (s)	58.1										
Intersection Capacity Utilization	47.9%										
Analysis Period (min)	15										
c Critical Lane Group	c										

HCM Signalized Intersection Capacity Analysis

3. Sand Island Parkway & Horizon Lines Driveway/Sand Island Driveway

12/19/2014

Movement	SBR
Lane Configurations	
Volume (vph)	19
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frbp. ped/bikes	
Frbp. ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.82
Adj. Flow (vph)	23
RTOR Reduction (vph)	0
Lane Group Flow (vph)	
Confl. Peds. (#/hr)	1
Heavy Vehicles (%)	15%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
vs Ratio Prot	
vs Ratio Perm	
w/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
<b>Intersection Summary</b>	
HCM 2000 Control Delay	
HCM 2000 Volume to Capacity ratio	
Actuated Cycle Length (s)	
Intersection Capacity Utilization	
Analysis Period (min)	
c Critical Lane Group	

HCM Signalized Intersection Capacity Analysis

3. Sand Island Parkway & Horizon Lines Driveway/Sand Island Driveway

12/19/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	11	1	2	6	1	61	3	643	2	4	48	376
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frbp. ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frbp. ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.98	1.00	0.85	1.00	1.00	1.00	1.00	0.98	1.00	1.00	0.98	1.00
Flt Protected	0.96	1.00	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1755	1583	1404	1719	3437	1719	3357	1719	3357	1719	3357	1719
Flt Permitted	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1825	1652	1404	1719	3437	1719	3357	1719	3357	1719	3357	1719
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	12	1	2	7	1	67	3	707	2	4	53	413
RTOR Reduction (vph)	0	2	0	0	0	62	0	0	0	0	0	12
Lane Group Flow (vph)	0	13	0	0	8	5	3	709	0	0	57	467
Confl. Peds. (#/hr)	4											
Heavy Vehicles (%)	2%	2%	2%	15%	15%	15%	5%	5%	5%	5%	5%	5%
Turn Type	Perm	NA	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	NA
Protected Phases	4			8		8		5		2		6
Permitted Phases	4			8		8		5		2		6
Actuated Green, G (s)	3.4			3.4		3.4		0.9		26.1		2.7
Effective Green, g (s)	3.4			3.4		3.4		0.9		26.1		2.7
Actuated g/C Ratio	0.07			0.07		0.07		0.02		0.55		0.06
Clearance Time (s)	5.0			5.0		5.0		5.0		5.0		5.0
Vehicle Extension (s)	3.0			3.0		3.0		3.0		3.0		3.0
Lane Grp Cap (vph)	131			119		101		32		1900		98
vs Ratio Prot								0.00		0.21		0.14
vs Ratio Perm	e0.01			0.00		0.00		0.00		0.00		0.03
w/c Ratio	0.10			0.07		0.05		0.37		0.37		0.58
Uniform Delay, d1	20.5			20.4		20.4		22.7		5.9		21.7
Progression Factor	1.00			1.00		1.00		1.00		1.00		1.00
Incremental Delay, d2	0.3			0.2		0.2		1.3		0.1		8.5
Delay (s)	20.8			20.7		20.6		24.0		6.1		30.2
Level of Service	C			C		C		C		C		C
Approach Delay (s)	20.8			20.6		20.6		6.1		6.1		7.4
Approach LOS	C			C		C		A		A		A
<b>Intersection Summary</b>												
HCM 2000 Control Delay				7.6		HCM 2000 Level of Service				A		
HCM 2000 Volume to Capacity ratio				0.36								
Actuated Cycle Length (s)				47.2		Sum of lost time (s)				15.0		
Intersection Capacity Utilization				47.0%		ICU Level of Service				A		
Analysis Period (min)				15								
c Critical Lane Group												



Movement	SBR
<b>Lane Configurations</b>	
Volume (vph)	60
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frbp, ped/bikes	
Fpb, ped/bikes	
Frt	
Frt Protected	
Satd. Flow (prot)	
Frt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	66
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	1
Heavy Vehicles (%)	5%
<b>Turn Type</b>	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
<b>Intersection Summary</b>	





---

**APPENDIX E:**  
Pre-Assessment Consultation  
Comment and Response Letters



**BOARD OF WATER SUPPLY**

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



January 29, 2015

KIRK CALDWELL, MAYOR  
DUANE B. MYERSBURG, Chair  
ADAM C. WONG, Vice Chair  
THERESA C. MAMUROO  
DAVID C. HULIHEE  
ROSS S. SASAMURA, Ex-Officio  
FORD N. FUCHIGAMI, Ex-Officio  
ERNEST Y. LAU, P.E.  
Manager and Chief Engineer  
ELLEN E. KITAMURA, P.E.  
Deputy Manager and Chief Engineer

Mr. Earl Matsukawa, AICP  
Wilson Okamoto Corporation  
1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii 96826



Dear Mr. Matsukawa:

Subject: Your Letter Dated December 5, 2014 on the Environmental Assessment Pre-Assessment Consultation for University of Hawaii School of Ocean and Earth Science Technology and Marine Education Training Center Facilities at Sand Island – Tax Map Key: 1-5-041: 006, 334

Thank you for the opportunity to comment on the proposed School of Ocean and Earth Science Technology and Marine Education Training Center Facilities.

The existing water system is adequate to accommodate the proposed facilities. However, please be advised that this information is based upon current data, and therefore, the Board of Water Supply (BWS) reserves the right to change any position or information stated herein up until the final approval of the building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

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

The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

The proposed project is subject to BWS Cross-Connection Control and Backflow Prevention requirements prior to the issuance of the Building Permit Applications.

If you have any questions, please contact Robert Chun, Project Review Branch of our Water Resources Division at 748-5443.

Very truly yours,

ERNEST Y. LAU, P.E.  
Manager and Chief Engineer



10056-01  
May 1, 2015

1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii, 96826 USA  
Phone: 808 946 2277  
Fax: 808 946 2253  
www.wilsonokamoto.com

Mr. Ernest Y. W. Lau, P.E.  
Manager and Chief Engineer  
Board of Water Supply  
City and County of Honolulu  
630 South Beretania St.  
Honolulu, Hawaii; 96843

Subject: Environmental Assessment (EA) Pre-Assessment Consultation University of Hawaii; SOEST and METC Facilities at Sand Island Tax Map Keys (TMK) 1-5-41: portions of 6 and 334 Honolulu, O'ahu, Hawaii'i

Dear Mr. Lau:

Thank you for your letter dated January 29, 2015 regarding the subject pre-assessment consultation. We offer the following in response to your comments:

We acknowledge that you have determined that the existing water system is adequate to accommodate the proposed facilities.

Your e-mail, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST

EM

DEPARTMENT OF DESIGN AND CONSTRUCTION  
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11<sup>TH</sup> FLOOR  
HONOLULU, HAWAII 96826  
Phone: (808) 768-8480 • Fax: (808) 768-4567  
Web site: [www.honolulu.gov](http://www.honolulu.gov)



KIRK CALDWELL  
MAYOR

ROBERT J. KRONING, P.E.  
DIRECTOR  
MARK YOHAMME, P.E.  
DEPUTY DIRECTOR

February 17, 2015

RECEIVED  
FEB 20 2015  
WILSON OKAMOTO CORPORATION

Wilson Okamoto Corporation  
1907 South Beretania Street, Suite 400  
Honolulu, Hawaii 96826

Attn: Earl Matsukawa

Dear Mr. Matsukawa:

Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii  
SOEST and METC Facilities at Sand Island  
Tax Map Key (TMK) 1-5-41: portions of 6 and 33A  
Honolulu, Oahu, Hawaii

The Department of Design and Construction has the following comments to offer on the pre-assessment consultation:

EA needs to incorporate Army 24" sewer line that is either in or adjacent to affected Property.

Thank you for the opportunity to review and comment. Should there be any questions, please contact Russell Takara, Assistant Chief, Wastewater Division at 768-8794.

Sincerely,

*For M. J. Kroning*  
Robert J. Kroning, P.E.  
Director

RJK: cf (591168)



10056-01  
May 1, 2015

1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii 96826 USA  
Phone: 808.946.2277  
Fax: 808.946.2253  
[www.wilsonokamoto.com](http://www.wilsonokamoto.com)

Mr. Robert J. Kroning, P.E.  
Director  
Department of Design and Construction  
City and County of Honolulu  
650 South King Street, 11<sup>th</sup> Floor  
Honolulu, Hawaii 96813

Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 33A  
Honolulu, O'ahu, Hawaii'i

Dear Mr. Kroning:

Thank you for your letter dated February 17, 2015 regarding the subject pre-assessment consultation. We offer the following in response to your comments:

The forthcoming Draft EA will note the presence of the Army's 24" sewer line running under the project site from the Fort Shafter Military Reservation.

Your e-mail, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

*Earl Matsukawa*  
Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST



DEPARTMENT OF COMMUNITY SERVICES  
CITY AND COUNTY OF HONOLULU

715 SOUTH KING STREET, SUITE 311 • HONOLULU, HAWAII 96813 • PHONE: 769-7762 • FAX: 769-7792



KIRK CALDWELL  
MAYOR

GARY K. NAKATA  
ACTING DIRECTOR

December 19, 2014

RECEIVED  
DEC 29 2014  
#ALUAIN UKAMUTU CORPORATION

Mr. Earl Matsukawa, AICP  
Wilson Okamoto Corporation  
Artesian Plaza, Suite 400  
1907 South Beretania Street  
Honolulu, Hawaii 96826

Dear Mr. Matsukawa:

**SUBJECT:** Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii SOEST and METC Facilities at Sand Island  
Tax Map Keys: 1-5-41: portions of 6 and 334  
Honolulu, Oahu, Hawaii

We have reviewed your letter dated December 5, 2014, and the enclosed Environmental Assessment (EA) Pre-Assessment Consultation materials for the proposed University of Hawaii School of Ocean and Earth Science and Technology and Marine Education Training Center, located at Sand Island, Oahu.

Our review of the documents indicates that the proposed project will have no adverse impacts on any Department of Community Services' activities or projects at this time.

Thank you for providing us with the opportunity to comment on this matter.

Sincerely,

  
Gary K. Nakata  
Acting Director

GKN:sgk



10056-01  
May 1, 2015

1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii 96826 USA  
Phone: 808.946.2277  
Fax: 808.946.2253  
www.wilsonokamoto.com

Mr. Gary Nakata  
Acting Director  
City and County of Honolulu  
Department of Community Services  
715 South King St.  
Honolulu, Hawaii 96813

**Subject:** Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, O'ahu, Hawaii

Dear Mr. Nakata:

Thank you for your letter dated December 19, 2014 regarding the subject pre-assessment consultation. We acknowledge that your review of the subject document indicates that the proposed project will have no adverse impact on any Department of Community Services' activities or projects at this time.

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

  
Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST



10056-01  
May 1, 2015

1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii, 96826 USA  
Phone: 808.946.2277  
Fax: 808.946.2253  
www.wilsonokamoto.com

Mr. Thomas Takeuchi, P.E.  
Drainage Engineer  
City and County of Honolulu  
Department of Facility Maintenance  
Division of Road Maintenance  
99-999 Iwaena Street  
Aiea, HI 96701

Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, O'ahu, Hawaii'i

Dear Mr. Takeuchi:

Thank you for your e-mail dated January 6, 2015 regarding the subject pre-assessment consultation. We acknowledge that you have comments to offer at this time.

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST

From: Takeuchi, Thomas K. [mailto:ttakeuchi@honolulu.gov]  
Sent: Tuesday, January 06, 2015 2:05 PM  
To: Wilson Okamoto Corporation  
Cc: Sugihara, Tyler; Yoneda, Ian; Sasamura, Ross; Mangiallan, Eduardo  
Subject: SOEST and METC Facilities at Sand Island EA

Mr. Matsukawa,

Sorry for the late response. We do not have any comments.

If you have any questions, please feel free to give me a call. Thank you.

Thomas Takeuchi, P.E.  
Drainage Engineer  
Department of Facility Maintenance  
Division of Road Maintenance  
99-999 Iwaena Street  
Aiea, HI 96701  
(808) 768-3608  
(808) 330-3516 (cell)  
(808) 768-3633 (fax)

DEPARTMENT OF PLANNING AND PERMITTING  
**CITY AND COUNTY OF HONOLULU**  
650 SOUTH KING STREET, 7<sup>TH</sup> FLOOR • HONOLULU, HAWAII 96813  
PHONE: 808.946.8300 • FAX: 808.946.2253 • CITY WEB SITE: [www.honolulu.gov](http://www.honolulu.gov)  
DEPT. WEB SITE: [www.honolulu.gov](http://www.honolulu.gov)



KIRK CALDWELL  
MAYOR

GEORGE L. ATTA, FAICP  
DIRECTOR  
ARTHUR D. CHALLACOMBE  
DEPUTY DIRECTOR

2014/ELOG-2341 (MT)

January 6, 2015

Mr. Earl Matsukawa  
Wilson Okamoto Corporation  
1907 South Beretania Street  
Honolulu, Hawaii 96826

Dear Mr. Matsukawa:

**SUBJECT:** Request for Comments  
Pre-Draft Environmental Assessment Consultation  
University of Hawaii Sand Island Facility  
Tax Map Key 1-5-41: 6 (por.) and 334 (por.)

This letter responds to your request (received December 14, 2014) for preliminary comments on the future Draft Environmental Assessment (DEA) for the University of Hawaii School of Ocean and Earth Science and Technology (SOEST) and Marine Education Training Center (METC) Sand Island Facility. The project site is zoned P-2 General Preservation District, and is located within the Special Management Area (SMA) and the "X" and "AE" flood hazard districts.

For purposes of the Land Use Ordinance (LUO), we have determined the SOEST to be a "public use and structure" which is a permitted use in the P-2 General Preservation District. Based on your "Project Description," we have determined that the proposed upgrades and improvements require an SMA permit. If the development cost exceeds \$500,000, a "major" SMA permit is required. If portions of the proposed floating dock and/or proposed access to the floating dock are located within the Shoreline Setback Area, a Shoreline Setback Variance will be required.

Please also be advised that improvements within the flood district must conform to Section 21-9.10 of the LUO, related to flood hazard districts. The DEA should describe how the project will comply with the AE flood hazard district development standards.

Please contact Mark Taylor of our Land Use Approval Branch at 768-8020, if you have any questions.

Very truly yours,

  
George I. Atta, FAICP  
Director



10056-01  
May 1, 2015

1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii 96826 USA  
Phone: 808.946.2277  
Fax: 808.946.2253  
[www.wilsonokamoto.com](http://www.wilsonokamoto.com)

Mr. George I. Atta, FAICP  
Director  
Department of Planning and Permitting  
City and County of Honolulu  
650 South King Street, 7<sup>th</sup> Floor  
Honolulu, Hawaii 96813

**Subject:** Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, O'ahu, Hawaii'i

Dear Mr. Atta:

Thank you for your letter dated January 6, 2015 (2014/ELOG-2341 [MT]) regarding the subject pre-assessment consultation. We offer the following response to your comments:

We acknowledge your determination that the proposed project is a "public use and structure", which is permitted in the P-2 General Preservation District, and that it will require an SMA Permit. Depending on the delineation of the certified shoreline, the proposed improvements associated with the floating dock may also require a Shoreline Setback Variance.

The proposed project will comply with all applicable requirements set forth in your letter. Any improvements within the flood district will conform to Section 21-9.19 of the Land Use Ordinance, and the Draft EA will discuss the project's conformance to AE flood hazard district development standards.

Your e-mail, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

  
Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST

DEPARTMENT OF PARKS & RECREATION  
**CITY AND COUNTY OF HONOLULU**  
1000 Uluohia Street, Suite 309, Kapolei, Hawaii 96707  
Phone: (808) 788-3003 • Fax: (808) 768-3053  
Website: www.honolulu.gov



KIRK CALDWELL  
MAYOR

MICHELE K. NEKOTA  
DIRECTOR  
JEANNE C. ISHIKAWA  
DEPUTY DIRECTOR

EM  
12

December 18, 2014

**RECEIVED**  
DEC 29 2014  
WILSON OKAMOTO CORPORATION

Mr. Earl Matsukawa, AICP, Project Manager  
Wilson Okamoto Corporation  
1907 South Beretania Street, Suite 400  
Honolulu, Hawaii 96809

Dear Mr. Matsukawa:

**SUBJECT:** Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, Oahu, Hawaii

Thank you for the opportunity to review and comment at the pre-consultation stage of the Environmental Assessment process for the University of Hawaii SOEST and METC Facilities at Sand Island.

The Department of Parks and Recreation has no comment. As the proposed project will have no impact on any program or facility of the department, you may remove us as a consulted party to the balance of the EIS process.

Should you have any questions, please contact Mr. John Reid, Planner at 768-3017.

Sincerely,

Michele K. Nekota  
Director

MKN:jr  
(591216)



10056-01  
May 1, 2015

1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii, 96826 USA  
Phone: 808.946.2277  
Fax: 808.946.2253  
www.wilsonokamoto.com

Ms. Michele Nekota  
Director  
Department of Parks and Recreation  
City and County of Honolulu  
1000 Uluohia Street, Suite 309  
Kapolei, Hawaii 'i 96707

**Subject:** Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii 'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, O'ahu, Hawaii 'i

Dear Ms. Nekota:

Thank you for your letter dated December 18, 2014 regarding the subject pre-assessment consultation. We acknowledge that you have no comments to offer and will honor your request to remove your department as a consulted party for the balance of this EA process.

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST



DEPARTMENT OF TRANSPORTATION SERVICES  
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 8RD FLOOR  
HONOLULU, HAWAII 96813  
Phone: (808) 768-8305 • Fax: (808) 768-4720 • Internet: www.honolulu.gov



KIRK CALDWELL  
MAYOR

MICHAEL D. FORMBY  
DIRECTOR  
MARK N. GARRITY, AICP  
DEPUTY DIRECTOR

TP12/14-591280R

December 30, 2014



Mr. Earl Matsukawa, AICP  
Project Manager  
Wilson Okamoto Corporation  
1907 South Beretania Street, Suite 400  
Honolulu, Hawaii 96826

Dear Mr. Matsukawa:

**SUBJECT:** Pre-Assessment Consultation for Draft Environmental Assessment for University of Hawaii SOEST and METC Facilities at Sand Island, Honolulu, Oahu, Hawaii

In response to your letter dated December 5, 2014, we have the following comments:

1. The Sand Island Parkway and Sand Island Access Road, which are located adjacent to the subject property, are under the State's jurisdiction. We don't anticipate the proposed project having a significant impact on the City roadways in the area.
2. The area Neighborhood Board, as well as the area residents, businesses, emergency personnel, should be kept apprised of the details of the proposed project and the impacts, particularly during construction, the project may have on the adjoining local street area network.
3. The construction materials and equipment should be transferred to and from the project site during off-peak traffic hours (8:30 a.m. to 3:30 p.m.) to minimize any possible disruption to traffic on the local streets.

Thank you for the opportunity to review this matter. Should you have any questions, please contact Renee Yamasaki of my staff at 768-8383.

Very truly yours,

Michael D. Formby  
Director



1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii 96826 USA  
Phone: 808.946.2277  
Fax: 808.946.2253  
www.wilsonokamoto.com

10056-01  
May 1, 2015

Michael Formby  
Director  
Department of Transportation Services  
City and County of Honolulu  
650 South King Street, 3<sup>rd</sup> Floor  
Honolulu, Hawaii 96813

**Subject:** Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 33-4  
Honolulu, O'ahu, Hawaii'i

Dear Mr. Formby:

Thank you for your letter dated December 30, 2014 (TP12/14-591280R) regarding the subject pre-assessment consultation. We offer the following in response to your comments:

1. We acknowledge that Sand Island Road and Sand Island Access road are under the State's jurisdiction, and appreciate your department's confirmation that the proposed project is not anticipated to have a significant impact on City roadways in the area.
2. The Kailhi Palama Neighborhood Board No. 15 has and will continue to be consulted as part of this EA and subsequent Special Management Area Permit process. As the proposed project progresses toward and through construction, we will apprise the Board as well as potentially affected area residents, businesses, and emergency personnel of any anticipated impacts on the adjoining local street area network.
3. The University will coordinate with the construction contractor to assure that construction materials and equipment will be transferred to the project site during off-peak traffic hours to minimize potential disruption to traffic on local streets, as outlined in your letter.

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST



HONOLULU FIRE DEPARTMENT  
CITY AND COUNTY OF HONOLULU

636 South Street  
Honolulu, Hawaii 96813-5007  
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd



MANUEL P. NEVES  
FIRE CHIEF  
LIONEL CAMARA JR.  
DEPUTY FIRE CHIEF

*EA*  
*KU*

December 31, 2014

RECEIVED  
JAN 05 2015  
HONOLULU FIRE DEPARTMENT

Mr. Earl Matsukawa, AICP  
Project Manager  
Wilson Okamoto Corporation  
1907 South Beretania Street  
Suite 400, Artesian Plaza  
Honolulu, Hawaii 96826

Dear Mr. Matsukawa:

Subject: Environmental Assessment Preassessment Consultation  
University of Hawaii  
School of Ocean and Earth Science and Technology and Marine Education  
Training Center Facilities at Sand Island  
Tax Map Keys: 1-5-041: Portions of 006 and 334

In response to your letter dated December 5, 2014, regarding the above-mentioned subject, the Honolulu Fire Department (HFD) requires that the following be complied with:

1. Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 feet from fire department access roads as measured by an approved route around the exterior of the building or facility. (National Fire Protection Association [NFPA] 1, Uniform Fire Code [UFC]<sup>TM</sup>, 2006 Edition, Section 18.2.3.2.2.)  
A fire department access road shall extend to within 50 feet of at least one exterior door that can be opened from the outside and that provides access to the interior of the building. (NFPA 1, UFC<sup>TM</sup>, 2006 Edition, Section 18.2.3.2.1.)
2. A water supply approved by the county, capable of supplying the

Mr. Earl Matsukawa, AICP  
Page 2  
December 31, 2014

required fire flow for fire protection, shall be provided to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed, or moved into or within the county. When any portion of the facility or building is in excess of 150 feet from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the AHJ [Authority Having Jurisdiction]. (NFPA 1, UFC<sup>TM</sup>, 2006 Edition, Section 18.3.1, as amended.)

3. The unobstructed width and unobstructed vertical clearance of a fire apparatus access road shall meet county requirements. (NFPA 1, UFC<sup>TM</sup>, 2006 Edition, Section 18.2.3.4.1.1, as amended.)
4. Submit civil drawings to the HFD for review and approval.

Should you have questions, please contact Battalion Chief Terry Seelig of our Fire Prevention Bureau at 723-7151 or tseelig@honolulu.gov.

Sincerely,

SOCRATES D. BRATAKOS  
Assistant Chief

SDB/SY:bh



10056-01  
May 1, 2015

1907 South Beretania Street  
Artisan Plaza, Suite 400  
Honolulu, Hawaii, 96826 USA  
Phone: 808.946.2277  
Fax: 808.946.2253  
www.wilsonokamoto.com

Mr. Socrates D. Bratakos  
Assistant Chief  
Honolulu Fire Department  
636 South Street  
Honolulu, Hawaii 96813-5007

Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, O'ahu, Hawaii'i

Dear Assistant Chief Bratakos:

Thank you for your letter dated December 31, 2014 regarding the subject pre-assessment consultation.

Per your comments, the proposed project will comply with all applicable provisions set forth by the National Fire Protection Association's (NFPA) Uniform Fire Code (UFC). Civil drawings will also be submitted to HFD for review and approval.

Your e-mail, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST



10056-01  
May 1, 2015

1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii, 96825 USA  
Phone: 808.946.2277  
Fax: 808.946.2253  
www.wilsonokamoto.com

Ms. Katy R. Damico  
Katy.R.Damico@usace.army.mil  
U.S. Army Corps of Engineers  
Honolulu District, Regulatory Office  
Building 230, CEPOH-RO  
Fort Shafter, Hawaii, 96858-5440

Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawai'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 33-4  
Honolulu, O'ahu, Hawai'i

Dear Ms. Damico:

Thank you for your e-mail transmittal dated January 4, 2015 regarding the subject pre-assessment consultation. We offer the following response to your comments:

The proposed project will comply with all applicable permitting requirements pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. It is anticipated, however, that the method for installing the proposed floating dock and other improvements will not require permitting under Section 404. The University will be in consultation with your office as this project proceeds to assure that all permit requirements, include those pursuant to Section 10, are met.

In our understanding, the establishment of a jurisdictional wetland requires three positive wetland indicators, one each for hydrology, soils and vegetation. The project area was filled to create Sand Island, and the Natural Resources Conservation Service soil survey identifies the composition of area soils as a mix of fill land and Jaucaus wetland plants on or in the vicinity of the project site. Further, the U.S. Fish and Wildlife Service's National Wetland Inventory identifies no wetlands on or in the vicinity of the project site.

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST

From: Damico, Katy R NAO [mailto:Katy.R.Damico@usace.army.mil]  
Sent: Sunday, January 04, 2015 6:17 PM  
To: Wilson Okamoto Corporation  
Cc: Lynch, Michelle R POH; darryl.lum@doh.hawaii.gov; Inakagawa@dbedt.hawaii.gov  
Subject: SOEST and METC Facilities at Sand Island EA

Dear Mr. Matsukawa,

The U.S. Army Corps of Engineers Honolulu District Regulatory Office (Corps) has completed its review of your request for comments as part of the EA pre-assessment consultation process for the University of Hawai SOEST and METC Facilities Relocation Project located along Kaihi Channel at Sand Island, Island of Oahu, Hawaii.

Based upon the limited information provided, the Corps can only determine that a Department of the Army (DA) permit may be required for the proposed project pursuant to Section 404 of the Clean Water Act (Section 404) and Section 10 of the Rivers and Harbors Act of 1899 (Section 10). Section 404 requires authorization prior to the discharge and/or placement of dredged or fill material into waters of the U.S., including wetlands. Section 10 requires authorization prior to installing structures in or conducting work in, over, under, and affecting navigable waters.

The proposed laydown/storage area may contain jurisdictional wetlands pursuant to Section 404. A delineation of waters of the U.S., including wetlands, should be conducted of the entire project site. Wetland delineations must be prepared in accordance with the current method required by the Corps (per the 1987 Corps of Engineers Wetland Delineation Manual and the 2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Hawaii and Pacific Islands Region). This delineation will determine if waters of the U.S., including wetlands, will be impacted and if a DA permit will be required for the discharge of fill material in this area.

The proposed floating dock and any additional structures in Kaihi Channel will require a Department of Army permit pursuant to Section 10. You should submit the attached DA permit application and supplemental questionnaire as soon as your project plans are nearly finalized to ensure that you have proper DA authorization for the proposed work.

Please contact me if you have any additional questions regarding this matter.

Respectfully,  
-Katy

Katy R. Damico  
Honolulu District US Army Corps of Engineers Regulatory Office Building 230, CEPOH-RO Fort Shafter, HI 96858-5440  
Office: (808) 835-4160  
Email: [katy.r.damico@usace.army.mil](mailto:katy.r.damico@usace.army.mil)

For more information regarding the Regulatory Program at the Honolulu District, please visit our website at <http://www.poh.usace.army.mil/Missions/Regulatory.aspx>.

For general inquiries, please contact the Honolulu District Regulatory Office at 808-835-4303 or via email

From: Tsuyemura, Mark [mailto:[mitsuyemura@honolulu.gov](mailto:mitsuyemura@honolulu.gov)]  
Sent: Tuesday, December 16, 2014 3:35 PM  
To: Wilson Okamoto Corporation  
Subject: "SOEST and METC Facilities at Sand Island EA"

Mr. Earl Matsukawa,

This project should have no significant impact on the services or operations of the Honolulu Police Department.

If there are any questions, please call Captain William Baldwin of District 5 (Kalihi) at 723-8202.

Thank you for the opportunity to review this project.



10056-01  
May 1, 2015

1907 South Beretania Street  
Artisan Plaza, Suite 400  
Honolulu, Hawaii, 96826 USA  
Phone: 808.946.2277  
Fax: 808.946.2253  
www.wilsonokamoto.com

Mr. Mark Tsuyemura  
[mitsuyemura@honolulu.gov](mailto:mitsuyemura@honolulu.gov)  
Honolulu Police Department  
City and County of Honolulu  
801 S. Beretania St.  
Honolulu, Hawaii 96813

Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, O'ahu, Hawaii'i

Dear Mr. Tsuyemura:

Thank you for your e-mail dated December 16, 2014 regarding the subject pre-assessment consultation. We appreciate your determination that the proposed project will have no significant impact on the services or operations of the Honolulu Police Department.

Your e-mail, along with this response, will be reproduced and included in the forthcoming Draft EA. Thank you for participating in the pre-assessment consultation review process.

Sincerely,

A handwritten signature in black ink, appearing to read 'Earl Matsukawa', written over a white background.

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST



EM

RECEIVED  
JAN 21 2015

WILSON OKAMOTO CORPORATION

January 15, 2015

Mr. Earl Matsukawa  
Wilson Okamoto Corporation  
1907 South Beretania Street, Suite 400  
Honolulu, Hawaii 96826

Dear Mr. Matsukawa:

Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii  
SOEST and METC Facilities at Sand Island  
TMK: 1-5-041:006 and 334

In response to your letter dated December 5, 2014, it has been determined that the area is currently clear of utility gas facilities.

Thank you for the opportunity to review the map. Should there be any questions, or if additional information is desired, please feel free to call Kris Tanner at 596-1425.

Sincerely,

Hawaii Gas

Keith K. Yamamoto  
Manager, Engineering

KKY:ks  
15-100



10056-01  
May 1, 2015

1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii, 96826 USA  
Phone: 808.946.2277  
Fax: 808.946.2253  
www.wilsonokamoto.com

Mr. Keith Yamamoto  
Manager, Engineering  
Hawaii Gas  
515 Kamakee Street  
Honolulu, Hawaii 96814

Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, Oahu, Hawaii

Dear Mr. Yamamoto:

Thank you for your letter dated January 15, 2015 regarding the subject pre-assessment consultation. We appreciate your determination that the project site is clear of utility gas facilities.

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST





December 21, 2014

WILSON OKAMOTO CORPORATION  
DEC 29 2014  
HAWAIIAN TELCOM CORPORATION

Wilson Okamoto Corporation  
1907 S. Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii 96826  
Attention: Mr. Earl Matsukawa, Project Manager

Dear Mr. Matsukawa:

**Subject: Environmental Assessment (EA) Pre-Assessment Consultation**  
University of Hawaii  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK): 1-5-41: portions of 6 and 3349-1-13-045  
Honolulu, Oahu, Hawaii

Thank you for the opportunity to review and comment on the environmental assessment pre-assessment consultation phase for the subject project.

In response to your letters dated December 5, 2014 that were addressed to Gerald Noda and Winslow I. Tanabe, Hawaiian Telcom does not have any comments to offer at this time.

Please submit future correspondence to:

Jon Uyehara  
Senior Manager – OSP Engineering  
Network Engineering & Planning  
P.O. Box 2200  
Mail Code: HIA10  
Honolulu, HI 96841

If you have any questions or require assistance in the future on this project, please call me at 546-7761.

Sincerely,

Les Loo  
Network Engineer – OSP Engineering  
Network Engineering & Planning

cc: File [Kalihii]

**Always on.™**

PO Box 2200, Honolulu, HI 96841 hawaiiintel.com



10056-01  
May 1, 2015

1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii, 96826 USA  
Phone: 808 946 2277  
Fax: 808 946 2253  
www.wilsonokamoto.com

Mr. Jon Uyehara  
Senior Manager – OSP Engineering  
Hawaiian Telcom, Network Engineering & Planning  
P.O. Box 2200  
Mail Code: HIA10  
Honolulu, Hawaii 96826

**Subject: Environmental Assessment (EA) Pre-Assessment Consultation**  
University of Hawaii'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, O'ahu, Hawaii'i

Dear Mr. Uyehara:

Thank you for your letter dated December 21, 2014 regarding the subject pre-assessment consultation.

We acknowledge that Hawaiian Telcom does not have any comments to offer at this time. Hereafter, we will direct correspondence pertaining to this EA to you.

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST



From: Liu, Rouen [mailto:[rouen.liu@hawaiianelectric.com](mailto:rouen.liu@hawaiianelectric.com)]  
Sent: Friday, January 16, 2015 2:52 PM  
To: Wilson Okamoto Corporation  
Cc: '1.11.150741@ecollab.heco.com'  
Subject: SOEST and METC Facilities at Sand Island EA

Dear Mr. Matsukawa,

Thank you for the opportunity to comment on the subject project. Hawaiian Electric Company has no objection to the project. Should HECO have existing easements and facilities on the subject property, we will need continued access for maintenance of our facilities.

We appreciate your efforts to keep us apprised of the subject project in the planning process. As the proposed SOEST and METC Facility at Sand Island project comes to fruition, please continue to keep us informed. Further along in the design, we will be better able to evaluate the effects on our system facilities.

If you have any questions, please call me at 543-7245.

Sincerely,  
Rouen Q. W. Liu  
Permits Engineer

10056-01  
May 1, 2015

1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii, 96826 USA  
Phone: 808 946 2277  
Fax: 808 946 2253  
[www.wilsonokamoto.com](http://www.wilsonokamoto.com)

Mr. Rouen Q. W. Liu  
Permits Engineer  
Hawaiian Electric Company  
[Rouen.liu@hawaiianelectric.com](mailto:Rouen.liu@hawaiianelectric.com)

Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawai'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, O'ahu, Hawai'i

Dear Mr. Liu:

Thank you for your e-mail transmittal dated January 16, 2015 regarding the subject pre-assessment consultation. We acknowledge that Hawaiian Electric Company (HECO) has no objection to the proposed project. Per your request, the University will ascertain if there are any easements that must be considered in the design of the proposed project. As appropriate, HECO will continue to be consulted as the project progresses.

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST

CONFIDENTIALITY NOTICE: This e-mail message, including any attachments, is for the sole use of the intended recipient(s) and may contain confidential and/or privileged information. Any unauthorized review, use, copying, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender immediately by reply e-mail and destroy the original message and all copies.

DAVID Y. IGE  
Governor



**STATE OF HAWAII**  
**DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES**

P.O. BOX 118, HONOLULU, HAWAII 96810-0118

DEC 18 2014

KERRY K. YONESHIGE  
Comptroller

DEC 27 2014  
401 MARK OPELAWAY DRIVE, HONOLULU, HI 96813

(P)13754

Mr. Earl Matsukawa, Project Manager  
Wilson Okamoto Corporation  
1907 South Beretania Street, Suite 400  
Honolulu, Hawaii 96826

Dear Mr. Matsukawa:

**Subject:** Environmental Assessment Pre-Assessment Consultation  
University of Hawaii  
SOEST and METC Facilities at Sand Island  
TMK (1) 1-5-41: por 6 and 334  
Honolulu, Oahu

Thank you for the opportunity to provide comments for the subject project. We have no comments to offer at this time. The subject project does not affect any of the Department of Accounting and General Services' existing facilities.

If you have any questions, your staff may call Ms. Gayle Takasaki of the Public Works Division at 586-0584.

Sincerely,

KERRY K. YONESHIGE  
Comptroller



10056-01  
May 1, 2015

1907 South Beretania Street,  
Artesian Plaza, Suite 400  
Honolulu, Hawaii, 96826 USA  
Phone: 808.946.2277  
Fax: 808.946.2253  
www.wilsonokamoto.com

Ms. Kerry Yoneshige  
Comptroller  
Department of Accounting and General Services  
State of Hawaii  
P.O. Box 119  
Honolulu, Hawaii; 96810-0119

**Subject:** Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, O'ahu, Hawaii

Dear Ms. Yoneshige:

Thank you for your letter dated December 18, 2014 ((P) 1375.4) regarding the subject pre-assessment consultation. We appreciate your determination that the subject project will not affect any of the Department of Accounting and General Services' existing facilities.

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. Thank you for your participation in the pre-assessment consultation review process.

Sincerely,

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST

CARTY S. CHING  
GOVERNOR OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSIONER OF WATER RESOURCES & WILDLIFE

WILLIAM M. TAN  
DIRECTOR OF WATER RESOURCES & WILDLIFE  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSIONER OF WATER RESOURCES & WILDLIFE  
1100 SOUTH BERTANIA STREET, SUITE 400  
HONOLULU, HAWAII 96826  
PHONE: (808) 587-4000  
FAX: (808) 587-4001  
WWW.DLN.R.STATE.HI.US  
LAND AND NATURAL RESOURCES  
STATE OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

January 9, 2015


Wilson Okamoto Corporation  
Attn: Mr. Earl Matsukawa, Project Manager  
1907 S. Beretania Street, Suite 400  
Honolulu, HI 96826

via email: [woc@wilsonokamoto.com](mailto:woc@wilsonokamoto.com)

Dear Mr. Matsukawa,

SUBJECT: Environmental Assessment (EA) Pre-Assessment Consultation, University of Hawaii  
Hawaii, SOEST and METC Facilities at Sand Island

Thank you for the opportunity to review and comment on the subject matter. In addition to the comments sent to you dated January 2, 2015, enclosed are additional comments from the Division of Aquatic Resources on the subject matter. Should you have any questions, please feel free to call Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Sincerely,  
  
Russell Y. Tsuji  
Land Administrator

Enclosure(s)

DAVID Y. ICE  
GOVERNOR OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSIONER OF WATER RESOURCES & WILDLIFE

WILLIAM M. TAN  
DIRECTOR OF WATER RESOURCES & WILDLIFE  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSIONER OF WATER RESOURCES & WILDLIFE  
1100 SOUTH BERTANIA STREET, SUITE 400  
HONOLULU, HAWAII 96826  
PHONE: (808) 587-4000  
FAX: (808) 587-4001  
WWW.DLN.R.STATE.HI.US  
LAND AND NATURAL RESOURCES  
STATE OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

January 9, 2015


Wilson Okamoto Corporation  
Attn: Mr. Earl Matsukawa, Project Manager  
1907 S. Beretania Street, Suite 400  
Honolulu, HI 96826

via email: [woc@wilsonokamoto.com](mailto:woc@wilsonokamoto.com)

Dear Mr. Matsukawa,

SUBJECT: Environmental Assessment (EA) Pre-Assessment Consultation, University of Hawaii  
Hawaii, SOEST and METC Facilities at Sand Island

Thank you for the opportunity to review and comment on the subject matter. In addition to the comments sent to you dated January 2, 2015, enclosed are additional comments from the Division of Aquatic Resources on the subject matter. Should you have any questions, please feel free to call Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Sincerely,  
  
Russell Y. Tsuji  
Land Administrator

Enclosure(s)

WILLIAM M. TAN  
DIRECTOR OF WATER RESOURCES & WILDLIFE  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSIONER OF WATER RESOURCES & WILDLIFE  
1100 SOUTH BERTANIA STREET, SUITE 400  
HONOLULU, HAWAII 96826  
PHONE: (808) 587-4000  
FAX: (808) 587-4001  
WWW.DLN.R.STATE.HI.US  
LAND AND NATURAL RESOURCES  
STATE OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

December 11, 2014

MEMORANDUM

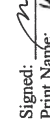
TO: **DINR Agencies:**  
 Div. of Aquatic Resources  
 Div. of Boating & Ocean Recreation  
 Engineering Division  
 Div. of Forestry & Wildlife  
 Div. of State Parks  
 Commission on Water Resource Management  
 Office of Conservation & Coastal Lands  
 Land Division - Oahu District  
 Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator  
 SUBJECT: Environmental Assessment (EA) Pre-Assessment Consultation, University of Hawaii, SOEST and METC Facilities at Sand Island  
 LOCATION: Sand Island, Tax Map Keys (TMK) 1-5-41: portions of 6 and 334; Honolulu, O'ahu, Hawaii  
 APPLICANT: University of Hawaii, by its consultant Wilson Okamoto Corporation

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document.

Please submit any comments by **January 2, 2015**. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Attachments  
 We have no objections.  
 We have no comments.  
 Comments are attached.

Signed:   
 Print Name: Russell Y. Tsuji  
 Date: 12/28/14



DAO # 5045  
JKV  
MF

RECEIVED  
LAND DIVISION  
2015 JAN -7 PM 2:24

DAVID Y. IGE  
GOVERNOR OF HAWAII



WILLIAM L. AILA, JR.  
CHAIRPERSON  
COMMISSION ON HAWAIIAN RESOURCES MANAGEMENT  
1981 PRESENT

JESSE K. SOIKI  
1981 PRESENT

WILLIAM A. TAM  
1981 PRESENT

ADRIAN BISHOP  
1981 PRESENT

HARRIET K. CAMPBELL  
1981 PRESENT

CONSULTANTS AND ADVISORS  
HONOLULU, HAWAII

KATHARINE AND RESERVE COMMISSION  
STATE PARKS

**STATE OF HAWAII**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

Date:  
DAR # 5045

**MEMORANDUM**

TO: William Aila Jr., Chairperson

FROM: Michael Fujimoto, Aquatic Biologist

SUBJECT: Pre-Consultation for EA, University of Hawaii, SOEST and METC Facilities at Sand Island

Comment	Date Request	Receipt	Referral	Due Date
Requested by: Russell Y. Tsuji, Land Administrator	12/11/2014	12/12/2014	12/15/2014	1/2/2015

**Summary of Proposed Project**

Title: Pre-Consultation for Environmental Assessment, University of Hawaii, SOEST and METC Facilities at Sand Island

Project by: Wilson Okamoto Corporation, on behalf of the University of Hawaii

Location: Oahu, Honolulu, HI

**Brief Description:** Due to the closure of the UH Marine Center's Snug Harbor Facility, the University of Hawaii (UH) School of Ocean and Earth Science and Technology (SOEST) will divide and relocate its small- and large-boat operations. The large-boat operations will be moved to a new facility at Pier 35, while its small-boat operations will be moved to this proposed Sand Island Small-Boat Facility & Floating Dock adjacent to the existing Honolulu Community College's Marine Education and Training Center (METC).

The project site is comprised of an approximately 4.6 acre vacant lot, the existing METC, Proposed easements over and existing roadway and a proposed submerged land easement along the METC waterfront. Proposed project improvements include constructing a paved laydown/storage area and installing a new larger floating dock to replace the existing floating dock fronting the METC. This replacement floating dock will be used jointly by SOEST, the UH Sailing Team, the UH Student Recreation Service, and the METC.

In the first phase, approximately one-half of the 4.6 acre vacant lot will be developed for the laydown/storage area where SOEST proposed to relocate its present small-boat operation from Snug Harbor.

Comments: We have no objections or comments to the project at this point. DAR requests the opportunity to review and comment on the project as it progresses.

Thank you for providing DAR the opportunity to review and comment on the proposed project. Should there be any changes to the proposed project, DAR requests the opportunity to review and provide comments on those changes.



WILLIAM M. LAN  
 HONOLULU, HAWAII 96809  
 (808) 535-1234  
 DEPARTMENT OF LAND AND NATURAL RESOURCES  
 621 POST OFFICE BOX  
 HONOLULU, HAWAII 96809



STATE OF HAWAII  
 DEPARTMENT OF LAND AND NATURAL RESOURCES  
 POST OFFICE BOX 621  
 HONOLULU, HAWAII 96809

December 11, 2014

**MEMORANDUM**

- DLNR Agencies:**
- Div. of Aquatic Resources
  - Div. of Boating & Ocean Recreation
  - Engineering Division
  - Div. of Forestry & Wildlife
  - Div. of State Parks
  - Commission on Water Resource Management
  - Office of Conservation & Coastal Lands
  - Land Division – Oahu District
  - Historic Preservation

**TO:** Russell Y. Tsuji, Land Administrator  
 Environmental Assessment (EA) Pre-Assessment Consultation, University of Hawai'i,  
 SOEST and METC Facilities at Sand Island  
**LOCATION:** Sand Island, Tax Map Keys (TMK) 1-5-41: portions of 6 and 334; Honolulu, O'ahu,  
 Hawai'i  
**APPLICANT:** University of Hawai'i, by its consultant Wilson Okamoto Corporation

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document.

Please submit any comments by **January 2, 2015**. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

- Attachments
- We have no objections.
  - We have no comments.
  - Comments are attached. (See below)

On 9/12/14, item D-4, The Board authorized the issuance of a direct lease to the City for a Temporary Mobile Access to Service and Housing project over the area adjoining the subject parcel. Please work with the Dept. of Emergency Management of the City (Mr. Peter Hirai) on the project regarding any coordination needed.

Signed: *Russell Y. Tsuji*  
 Date: 12/19/14  
 Print Name: BARRY CHUNG

GARY S. CHANG  
 HONOLULU, HAWAII 96809  
 (808) 535-1234  
 DEPARTMENT OF LAND AND NATURAL RESOURCES  
 621 POST OFFICE BOX  
 HONOLULU, HAWAII 96809



STATE OF HAWAII  
 DEPARTMENT OF LAND AND NATURAL RESOURCES  
 LAND DIVISION  
 POST OFFICE BOX 621  
 HONOLULU, HAWAII 96809

January 5, 2015

Wilson Okamoto Corporation  
 Attn: Mr. Earl Matsukawa, Project Manager  
 1907 S. Beretania Street, Suite 400  
 Honolulu, HI 96826  
 via email: [woc@wilsonokamoto.com](mailto:woc@wilsonokamoto.com)

Dear Mr. Matsukawa,

**SUBJECT:** Environmental Assessment (EA) Pre-Assessment Consultation, University of Hawai'i, SOEST and METC Facilities at Sand Island

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comments.

At this time, enclosed are comments from (1) Land Division – Oahu District; (2) Division of Boating & Ocean Recreation; and (3) Engineering Division. No other comments were received as of our suspense date. Should you have any questions, please feel free to call Supervising Land Agent Steve Molmen at 587-0439. Thank you.

Sincerely,

*Russell Y. Tsuji*  
 Russell Y. Tsuji  
 Land Administrator

Enclosure(s)

DAVID Y. IRE  
GOVERNOR OF HAWAII



WILLIAM A. JR.  
COMMISSIONER OF LAND AND NATURAL RESOURCES  
JESSIE K. SHERK  
TERRI HOPKIN  
MORRIS B. BARNETT  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
1800 KALANANAKUHIWA DRIVE, SUITE 1400  
HONOLULU, HAWAII 96813  
KAMAHA AND HONANUIAIAI FOUNDATION



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

December 11, 2014

**MEMORANDUM**

- TO:**
- DINR Agencies:**
- X Div. of Aquatic Resources
  - X Div. of Boating & Ocean Recreation
  - X Engineering Division
  - X Div. of Forestry & Wildlife
  - X Div. of State Parks
  - X Commission on Water Resource Management
  - X Office of Conservation & Coastal Lands
  - X Land Division - Oahu District
  - X Historic Preservation

**FROM:** Russell Y. Tsuji, Land Administrator  
**SUBJECT:** Environmental Assessment (EA) Pre-Assessment Consultation, University of Hawaii, SOEST and METC Facilities at Sand Island  
**LOCATION:** Sand Island, Tax Map Keys (TMK) 1-5-41: portions of 6 and 334; Honolulu, O'ahu, Hawaii  
**APPLICANT:** University of Hawaii, by its consultant Wilson Okamoto Corporation

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document.

Please submit any comments by January 2, 2015. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

- Attachments
- We have no objections.
  - We have no comments.
  - Comments are attached.

Signed:   
 Print Name: Steven K. Chubbwood  
 Date: 12/15/14

RECEIVED-REGISTRATION DIV

DAVID Y. IRE  
GOVERNOR OF HAWAII



WILLIAM A. JR.  
COMMISSIONER OF LAND AND NATURAL RESOURCES  
JESSIE K. SHERK  
TERRI HOPKIN  
MORRIS B. BARNETT  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
1800 KALANANAKUHIWA DRIVE, SUITE 1400  
HONOLULU, HAWAII 96813  
KAMAHA AND HONANUIAIAI FOUNDATION



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

December 11, 2014

**MEMORANDUM**

- TO:** FR
- DINR Agencies:**
- X Div. of Aquatic Resources
  - X Div. of Boating & Ocean Recreation
  - X Engineering Division
  - X Div. of Forestry & Wildlife
  - X Div. of State Parks
  - X Commission on Water Resource Management
  - X Office of Conservation & Coastal Lands
  - X Land Division - Oahu District
  - X Historic Preservation

**FROM:** Russell Y. Tsuji, Land Administrator  
**SUBJECT:** Environmental Assessment (EA) Pre-Assessment Consultation, University of Hawaii, SOEST and METC Facilities at Sand Island  
**LOCATION:** Sand Island, Tax Map Keys (TMK) 1-5-41: portions of 6 and 334; Honolulu, O'ahu, Hawaii  
**APPLICANT:** University of Hawaii, by its consultant Wilson Okamoto Corporation

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document.

Please submit any comments by January 2, 2015. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

- Attachments
- We have no objections.
  - We have no comments.
  - Comments are attached.

Signed:   
 Print Name: Gary S. Chung, Chief Engineer  
 Date: 12/29/14

14 DEC 12 PM 2:15 ENGINEERING  
RECEIVED LAND DIVISION  
2014 DEC 23 PM 3:15  
DEPT OF LAND AND NATURAL RESOURCES  
STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION

LD/ Russell Y. Tsuji  
Ref.: Pre-Assessment Consultation for EA for UH SOEST AND METC Facilities at Sand Island  
Oahu.083

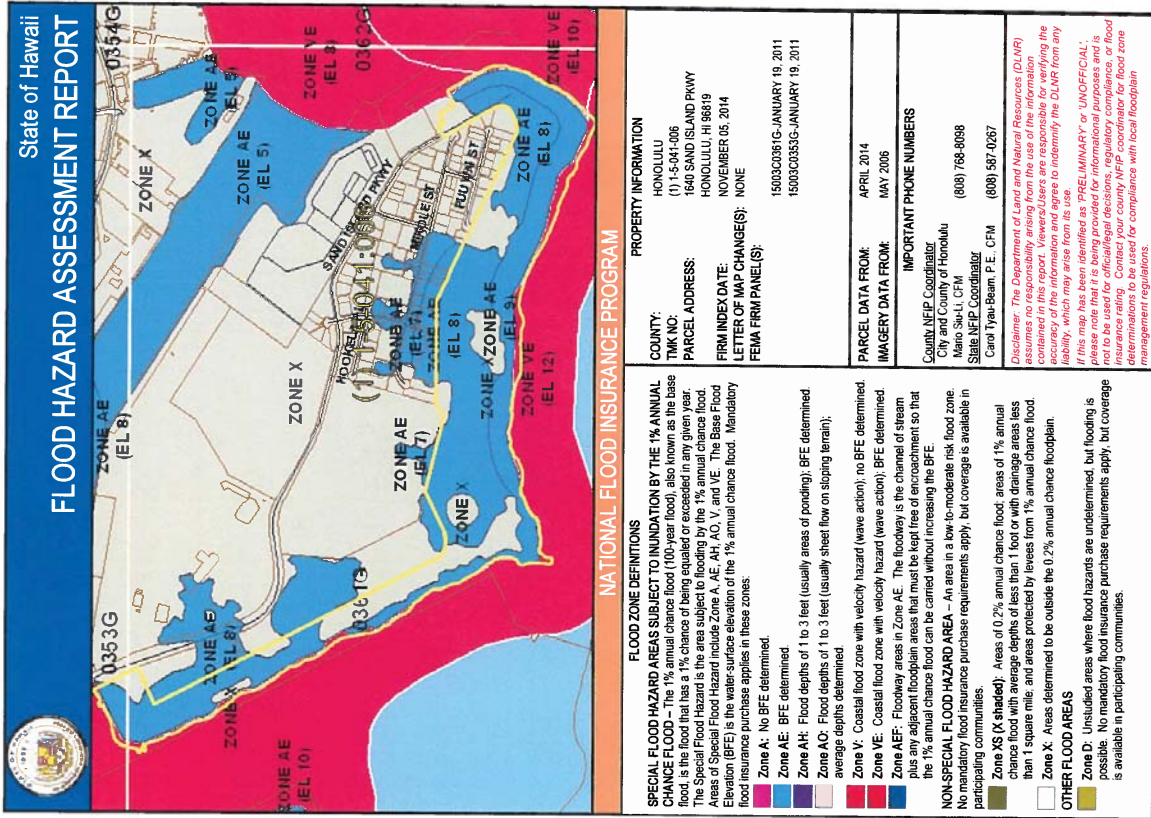
COMMENTS

- ( ) 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 site according to the Flood Insurance Rate Map (FIRM), is located in Zones AE and X. The National Flood Insurance Program regulates developments within Zone AE as indicated in bold letters below, but not Zone X.  
Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is \_\_\_\_\_.
- (X) 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 T'yu-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:  
(X) Mr. Mario Sin Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.  
( ) Mr. Frank DeMarco at (808) 961-8042 of the County of Hawaii, Department of Public Works.  
( ) Mr. Carolyn Cortez at (808) 270-7253 of the County of Maui, Department of Planning.  
( ) Mr. Stanford Iwamoto at (808) 241-4846 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: \_\_\_\_\_

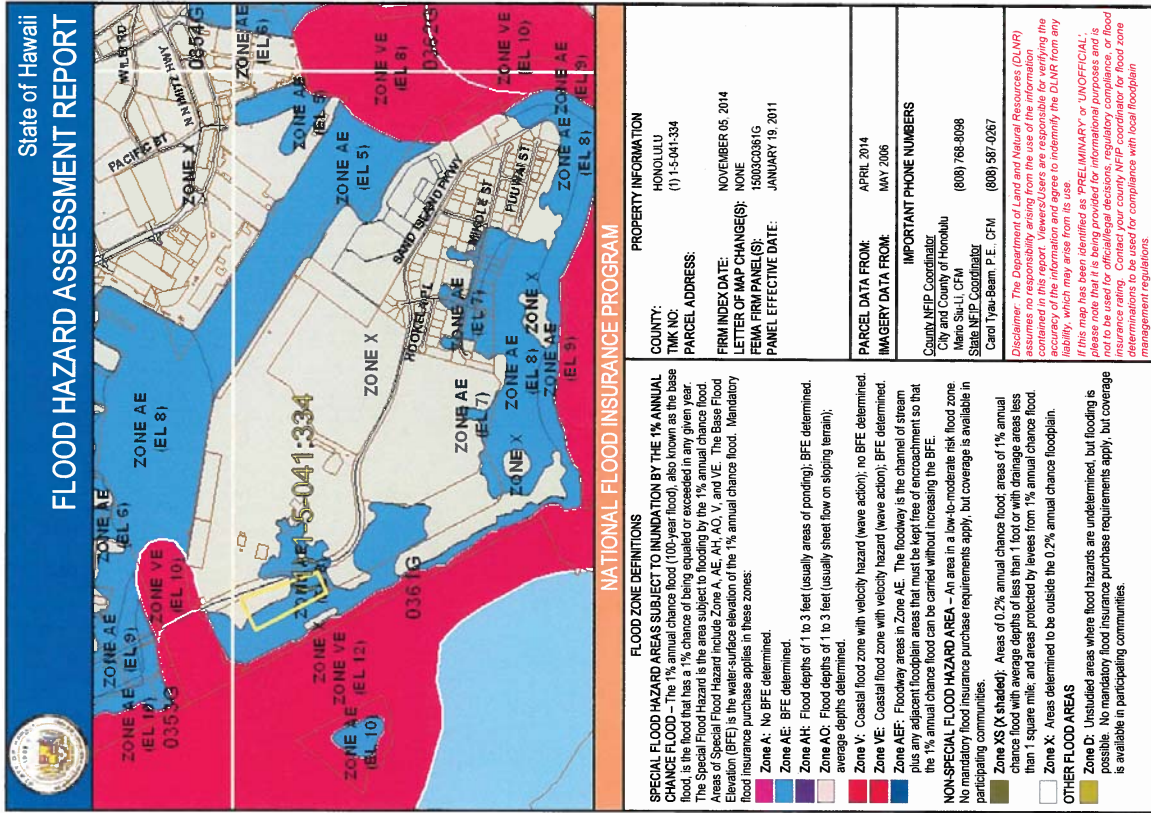
Should you have any questions, please call Mr. Dennis Imada of the Planning Branch at 587-0257.

Signed: *Chia Chang*  
CARTY S. CHANG, CHIEF ENGINEER

Date: 12/23/14







10056-01  
May 1, 2015

1907 South Beretania Street  
Artisan Plaza, Suite 400  
Honolulu, Hawaii, 96826 USA  
Phone: 808.946.2277  
Fax: 808.946.2253  
www.wilsonokamoto.com

Mr. Russell Y. Tsuji  
Land Administrator  
Department of Land and Natural Resources  
Land Division  
P.O. Box 621  
Honolulu, Hawaii 'i 96809

Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii 'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, O'ahu, Hawaii 'i

Dear Mr. Tsuji:

Thank you for your e-mail transmittals dated January 5 and 9, 2015 regarding the subject re-assessment consultation. We offer the following responses to the various DLNR agency comments you forwarded to us:

Land Division, Oahu District

We acknowledge that the Board has authorized the issuance of a direct lease to the City for a Temporary Mobile Access to Service and Housing project over the area adjoining the subject parcel. As recommended, the University will contact Mr. Peter Hirai of the City and County of Honolulu Department of Emergency Management regarding any coordination needed.

Division of Boating & Ocean Resources

We acknowledge that the Division of Boating and Ocean Resources has no comments to offer.

Engineering Division

We acknowledge that the project site is located within Zones AE and X. The subject project will comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44 CFR).

Division of Aquatic Resources

We acknowledge that the Division of Aquatic Resources (DAR) has no objections or comments to offer regarding the proposed project at this time. Per their request, DAR will be consulted through the EA and subsequent Special Management Area permit processes.

**NATIONAL FLOOD INSURANCE PROGRAM**

FLOOD ZONE DEFINITIONS		PROPERTY INFORMATION	
<p><b>SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD</b> – The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water-surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones:</p> <ul style="list-style-type: none"> <li>Zone A: No BFE determined.</li> <li>Zone AE: BFE determined.</li> <li>Zone AH: Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined; average depths determined.</li> <li>Zone AO: Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.</li> <li>Zone V: Coastal flood zone with velocity hazard (wave action); no BFE determined.</li> <li>Zone VE: Coastal flood zone with velocity hazard (wave action); BFE determined.</li> <li>Zone X: Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.</li> </ul> <p><b>NON-SPECIAL FLOOD HAZARD AREA</b> – An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.</p> <ul style="list-style-type: none"> <li>Zone XS (X shaded): Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.</li> <li>Zone X: Areas determined to be outside the 0.2% annual chance floodplain.</li> <li>Zone D: Unshaded areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.</li> </ul>		<p><b>COUNTY:</b> HONOLULU</p> <p><b>TMK NO:</b> (1) 1-5-041-334</p> <p><b>PARCEL ADDRESS:</b> NOVEMBER 05, 2014</p> <p><b>FIRM INDEX DATE:</b> NONE</p> <p><b>FIRM PANEL(S):</b> 1506C031G</p> <p><b>PANEL EFFECTIVE DATE:</b> JANUARY 19, 2011</p>	<p><b>PARCEL DATA FROM:</b> APRIL 2014</p> <p><b>IMAGERY DATA FROM:</b> MAY 2006</p> <p><b>IMPORTANT PHONE NUMBERS</b></p> <p>County NFIP Coordinator City and County of Honolulu Mara Sui-Li CFM (808) 768-5098</p> <p>State NFIP Coordinator Carol Tyeu-Beam, P. E. CFM (808) 507-0267</p>
<p><b>OTHER FLOOD AREAS</b></p>		<p><b>DISCLAIMER:</b> The Department of Land and Natural Resources (DLNR) is not responsible for the accuracy of the information and agrees to indemnify the DLNR from any liability, which may arise from its use.</p> <p>If this map has been identified as PRELIMINARY or UNOFFICIAL, please note that it is being provided for informational purposes and is not intended to be used for insurance rating. Contact your county NFIP coordinator for flood zone determinations to be used for compliance with local floodplain management regulations.</p>	



10056-01  
Letter to Mr. Russell Y. Tsuji  
May 1, 2015  
Page 2

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

A handwritten signature in black ink, appearing to read 'Earl Matsukawa'.

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST



DAVID I. WEE  
GOVERNOR OF HAWAII



**STATE OF HAWAII**  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
DIVISION OF STATE PARKS  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

EARLY'S CHANGES  
SYSTEMS, TRAINING, AND  
CONSULTING FOR WATER RESOURCES MANAGEMENT  
EARTH SERVICES  
WILLIAM T. TAM  
POSTER, WILLIAM T. TAM, WALTER  
AGUILAR, ROBERT PERES  
BUILDING AND CONSTRUCTION  
CONSULTING ON WATER RESOURCES MANAGEMENT  
CONSULTING ON WATER RESOURCES MANAGEMENT  
CONSULTING ON WATER RESOURCES MANAGEMENT  
HONOLULU, HAWAII 96809  
STATE PARKS  
EM

January 22, 2015

Mr. Earl Matsukawa, AICP  
Wilson Okamoto Corporation  
1907 S. Beretania St., Suite 400  
Honolulu, HI 96826

RECEIVED  
JAN 28 2015  
WILSON OKAMOTO CORPORATION

Dear Mr. Matsukawa:

Subject: Pre-Assessment Consultation for an Environmental Assessment (EA) for the SOEST and METC Facilities at Sand Island; TMK: 1-5-41; portions of 06 and 334, Honolulu, Hawaii 'i

We would appreciate receiving a copy of the draft EA when it is prepared for the subject project.

Very truly yours,

Daniel S. Quinn, Administrator



10056-01  
May 1, 2015

1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii, 96826 USA  
Phone: 808 946 2277  
Fax: 808 946 2253  
www.wilsonokamoto.com

Mr. Daniel S. Quinn  
Administrator  
Department of Land and Natural Resources  
Division of State Parks  
P.O. Box 621  
Honolulu, Hawaii 'i 96809

Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii 'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41; portions of 6 and 334  
Honolulu, O'ahu, Hawaii 'i

Dear Mr. Quinn:

Thank you for your e-mail transmittal dated January 22, 2015 (DAR # 5045) regarding the subject pre-assessment consultation. We offer the following response to your comments:

Per your request, a copy of the Draft EA will be forwarded to your office when it is available.

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST

DAVID Y. IGE  
GOVERNOR OF HAWAII



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

December 24, 2014

Mr. Earl Matsukawa, AICP  
Project Manager  
Wilson Okamoto Corporation  
1907 South Beretania Street, Suite 400  
Honolulu, Hawaii 96826

Dear Mr. Matsukawa:

**SUBJECT: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii SOEST and METC Facilities at Sand Island  
Honolulu, Island of Oahu, Hawaii**

The Department of Health (DOH) Clean Water Branch (CWB), acknowledges receipt of your letter, dated December 5, 2014, requesting comments on the subject document. The DOH-CWB has reviewed the subject document and offers these comments. Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. Your applicant may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at: [http://health.hawaii.gov/epo/files/2013/10/CWB\\_Oct22.pdf](http://health.hawaii.gov/epo/files/2013/10/CWB_Oct22.pdf).

1. Any project and its potential impacts to State waters must meet the following criteria:
  - a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
  - b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.
  - c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).
2. National Pollutant Discharge Elimination System (NPDES) permit coverage is required for pollutant discharges into State surface waters and for certain situations involving storm water (HAR, Chapter 11-55).

KEITH YAMAMOTO  
DIRECTOR OF HEALTH

In reply, please refer to:  
EM/CWB

12048PJF.14

EM  
KC

RECEIVED  
DEC 29 2014

WILSON OKAMOTO CORPORATION

Mr. Earl Matsukawa  
December 24, 2014  
Page 2

12048PJF.14

a. Discharges into Class 2 or Class A State waters can be covered under an NPDES general permit only if all of the NPDES general permit requirements are met. Please see the DOH-CWB website (<http://health.hawaii.gov/cwb/>) for the NPDES general permits and instructions to request coverage.

b. All other discharges into State surface waters and discharges into Class 1 or Class AA State waters require an NPDES individual permit. To request NPDES individual permit coverage, please see the DOH-CWB forms website located at: <http://health.hawaii.gov/cwb/site-map/clean-water-branch-home-page/forms/>.

c. NPDES permit coverage for storm water associated with construction activities is required if your project will result in the disturbance of one (1) acre or more 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. NPDES permit coverage is required before the start of the construction activities.

Land disturbance includes, but is not limited to clearing, grading, grubbing, uprooting of vegetation, demolition (even if leaving foundation slab), staging, stockpiling, excavation into pavement areas which go down to the base course, and storage areas (including areas on the roadway to park equipment if these areas are blocked off from public usage, grassed areas, or bare ground).

3. If the project involves work in, over, or under waters of the United States, it is highly recommend that your applicant contact the Army Corp of Engineers, Regulatory Branch (Tel: 438-9258) regarding their permitting requirements.

Pursuant to Federal Water Pollution Control Act [commonly known as the "Clean Water Act" (CWA)], Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) 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." (Emphasis added). The term "discharge" is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40 of the Code of Federal Regulations, Section 122.2; and HAR, Chapter 11-54.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.

Mr. Earl Matsukawa  
December 24, 2014  
Page 3

12048PJF.14

If you have any questions, please visit our website at: <http://health.hawaii.gov/cwb>, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,



ALEC WONG, P.E., CHIEF  
Clean Water Branch

JF:bk



10056-01  
May 1, 2015

1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii, 96826 USA  
Phone: 808 946 2277  
Fax: 808 946 2253  
[www.wilsonokamoto.com](http://www.wilsonokamoto.com)

Mr. Alec Wong, P.E., Chief  
State of Hawai'i  
Department of Health  
Clean Water Branch  
P.O. Box 3378  
Honolulu, Hawai'i 96801-3378

Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawai'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, O'ahu, Hawai'i

Dear Mr. Wong:

Thank you for your letter dated December 24, 2014 (EMD/CWB 12048PJF.14) regarding the subject pre-assessment consultation. We offer the following responses to your numbered comments:

1. We appreciate the information provided regarding the anti-degradation policy, designated uses, and water quality criteria applicable to any project and its associated impact on State waters (Chapter 11-54, HAR). The project will comply with applicable provisions.
2. Thank you for the information on National Pollutant Discharge Elimination System (NPDES) provisions. Prior to the start of construction, coordination will be undertaken with the Department of Health on applicable requirements.
3. Early consultation with the Corps of Engineers has also been undertaken to ascertain applicable requirements. As necessary, the proposed project will comply with the provisions of Section 401 Water Quality Certification.
4. We acknowledge that all discharges related to project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 are required, must comply with the State's Water Quality Standards.



10056-01  
Letter to Mr. Alec Wong  
Page 2  
May 1, 2015

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

A handwritten signature in black ink, appearing to read 'Earl Matsukawa'.

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST



DAVID Y. IGE  
GOVERNOR OF HAWAII



VIRGINIA PRESSLER, M.D.  
DIRECTOR OF HEALTH

STATE OF HAWAII  
DEPARTMENT OF HEALTH

P.O. BOX 3378  
HONOLULU, HI 96813-3378

In reply, please refer to:  
File:

EPO 14-270

January 7, 2015

Mr. Earl Matsukawa, AICP  
Wilson Okamoto Corporation  
1907 South Beretania Street, Suite 400  
Honolulu, Hawaii 96826  
Via email only: [woc@wilsonokamoto.com](mailto:woc@wilsonokamoto.com)

Dear Mr. Matsukawa:

**SUBJECT: PC for DEA, University of Hawaii  
SOEST and METC Facilities at Sand Island  
Honolulu, Oahu**

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your letter and six (6) attachments to our office dated December 5, 2014. Thank you for allowing us to review and comment on the proposed project. The DEA was routed electronically to the Clean Water Branch. They will provide comments to you if necessary. EPO recommends that you review the standard comments at: <http://health.hawaii.gov/epp/home/landuse-planning-review-program/>. Projects are required to adhere to all applicable standard comments.

We encourage you to examine and utilize the Hawaii Environmental Health Portal. The portal provides links to our e-Permitting Portal, Environmental Health Warehouse, Groundwater Contamination Viewer, Hawaii Emergency Response Exchange, Hawaii State and Local Emission Inventory System, Water Pollution Control Viewer, Water Quality Data, Warnings, Advisories and Postings. The Portal is continually updated. Please visit it regularly at: <https://eha-cloud.doh.hawaii.gov/>

You may also wish to review the recently revised Water Quality Standards Maps that have been updated for all islands. The new Water Quality Standards Maps can be found at:

<http://health.hawaii.gov/cwlb/clean-water-branch-home-page/water-quality-standards/>

The EPO suggests that you examine the many sources available on strategies to support sustainable and healthy design, including the:

- 2014 Climate Change Impacts in Hawaii:  
<http://seagrant.soest.hawaii.edu/sites/seagrant.soest.hawaii.edu/files/publications/smfinal-hawaiiclimatechange.pdf>

We request you share all of this information with others to increase community awareness on healthy, sustainable, innovative, inspirational, and healthy community design. We would appreciate a reply to this response to ensure delivery.

Mahalo nui loa

Laura Leialoha Phillips McIntyre, AICP  
Program Manager, Environmental Planning Office

cc: CMB, HEER (via email only)



10056-01  
May 1, 2015

1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii 96826 USA  
Phone: 808.946.2277  
Fax: 808.946.2253  
[www.wilsonokamoto.com](http://www.wilsonokamoto.com)

Ms. Laura Leialoha Phillips McIntyre, AICP  
Program Manager  
Department of Health  
Environmental Planning Office  
P.O. Box 3378  
Honolulu, Hawaii 96801-3378

Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, O'ahu, Hawaii'i

Dear Ms. McIntyre:

Thank you for your letter dated January 7, 2015 (EPO 14-270) regarding the subject pre-assessment consultation. We offer the following in response to your comments:

The proposed project will adhere to all applicable standard comments outlined in the URL link provided in your letter. Further, the Department of Health's Hawaii'i Environmental Health Portal will be utilized as a reference resource throughout the EA process for the subject project.

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST



DAVID Y. IGE  
GOVERNOR



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

January 6, 2015

Mr. Earl Matsukawa, AICP  
Project Manager  
Wilson Okamoto Corporation  
1907 South Beretania Street, Suite 400  
Honolulu, Hawaii 96826

Dear Mr. Matsukawa:

Subject: Pre-Assessment Consultation  
Draft Environmental Assessment  
University of Hawaii, SOEST and METC Facilities –  
Sand Island, Oahu  
TMK: (1) 1-5-041:006 (por.) and 334 (por.)

The Department of Transportation (DOT) has the following comments on the subject project:

Airports Division (DOT-AIR)

The proposed development will be subject to aircraft overflights and noise because it is within the approach/departure surface for the Honolulu International Airport (HNL). And because the project is within the 70-75 dnl noise contour for HNL, classrooms are an incompatible use. If the developer proceeds with a classroom type of facility for the METC, the facility should be sound attenuated for noise.

In addition, due to the project's proximity to the HNL, the developer will need to file FAA Form 7460-1 "Notice of Proposed Construction or Alteration" for the building, including any photovoltaic installations, with the Federal Aviation Administration (FAA).

Harbors Division (DOT-HAR)

The proposed project will share a common ingress and egress corridor along Sand Island Parkway with a Matson storage area on an adjacent lot, Tax Map Key Number 15041022. The area is used to store shipping containers when needed, chassis and other items. The applicant should consult with Matson and identify any potential traffic issues in the Draft Environmental Assessment.

FORD N. FUCHIGAMI  
DIRECTOR

Deputy Directors  
JAKE T. BUTAY  
ROSS M. HIGASHI  
EDWIN H. SNIFFEN

IN REPLY REFER TO:

STP 8.1733

EM

Mr. Earl Matsukawa  
January 6, 2015  
Page 2

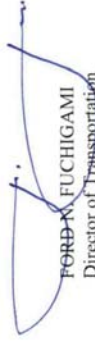
STP 8.1733

Highways Division (DOT-HWY)

A Traffic Assessment (TA) shall be prepared and submitted to the DOT for review and acceptance. The TA shall describe the operation and staffing of the facility, access to the facility, and determine the volume of traffic that will be generated. Since access to the facility is likely to be via the existing Department of Land and Natural Resources' or Harbor's road from a signalized intersection on Sand Island Access Road (State Route 64), the TA shall also evaluate the signalized intersection, any other access that may be proposed, if applicable, and determine whether improvements at the intersection or any other point would be needed. The TA will propose mitigation improvements where needed and these improvements shall be provided at no cost to the DOT.

If there are any questions, please contact Mr. Norren Kato of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7976.

Sincerely,

  
FORD N. FUCHIGAMI  
Director of Transportation

c: Gordon Wong, Federal Aviation Administration



10056-01  
May 1, 2015

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

1907 South Beretania Street  
Artisan Plaza, Suite 400  
Honolulu, Hawaii, 96826 USA  
Phone: 808.946.2277  
Fax: 808.946.2253  
www.wilsonokamoto.com

Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5--41: portions of 6 and 33-4  
Honolulu, O'ahu, Hawaii

Dear Director:

Thank you for your letter dated January 16, 2015 (STP 8.1733) regarding the subject pre-assessment consultation. We offer the following response to your comments:

Airports Division (DOT-AIR)

We acknowledge that the proposed project will be subject to overflights and noise due to its proximity to the approach/departure surface for the Honolulu International Airport (HNL). There are no plans to develop classrooms or other noise sensitive uses on the project site.

As required, the applicant will file a FAA Form 7460-1 "Notice of Proposed Construction or Alteration" with the Federal Aviation Administration for the proposed project.

Harbors Division (DOT-HAR)

As the proposed project shares a common ingress and egress corridor along Sand Island Parkway with a Matson storage area on an adjacent lot, Matson will be consulted through the EA process.

Highways Division (DOT-HWY)

A Traffic Impact Assessment Report will be included as an appendix to the forthcoming Draft EA, and will be submitted to the DOT for review and comment.

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST

EM

PHONE (808) 594-1888



STATE OF HAWAII  
OFFICE OF HAWAIIAN AFFAIRS  
560 N. NIMITZ HWY., SUITE 200  
HONOLULU, HAWAII 96817

FAX (808) 594-1865

HRD 14/7327

January 9, 2015

RECEIVED  
JAN 28 2015  
HAWAIIAN AFFAIRS DIVISION

Mr. Earl Matsukawa  
Project Manager  
Wilson Okamoto Corporation  
1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii 96826

Re: Pre-Assessment Consultation for an Environmental Assessment (EA), University of Hawaii's SOEST and METC Facilities at Sand Island, Honolulu, O'ahu, Hawaii  
TMK: (1) 1-5-041: portions of 6 and 334

Aloha Mr. Matsukawa:

The Office of Hawaiian Affairs (OHA) is in receipt of your letter of December 5, 2014 requesting assistance for the drafting of an EA for the proposed University of Hawaii's School of Ocean and Earth Science and Technology (SOEST) move of their small-boat operations to Sand Island. Small-boat operations will be moved to the proposed Sand Island Small-Boat Facility & Floating Dock adjacent to the Honolulu Community College's Marine Education Training Center.

According to our records, the project will take place on lands returned to the State of Hawaii under Public Law 88-233 and thus part of the Public Land Trust established by Section 5(f) of the Admission Act. We ask for confirmation in the DEA. We also ask that you consult and seek comments from the Polynesian Voyaging Society, paddling clubs, and residents of Mokauea potentially affected by the additional harbor transit from SOEST operations.

Mr. Earl Matsukawa  
January 9, 2015  
Page 2

Mahalo for the opportunity to consult at this early stage of the project and we look forward to the opportunity to review the draft EA. Should you have any questions, please contact Jerry B. Norris at 594-0227 or by email at [jerryn@oha.org](mailto:jerryn@oha.org).

'O wau iho nō me ka 'oia 'i'o,

Kamana'opono M. Crabbe, Ph.D.  
Ka Pauhana, Chief Executive Officer

KC:jbn

C: Maynard Young, UH-OCI  
Alexander Shor, UH-SOEST



10056-01  
May 1, 2015

1907 South Beretania Street  
Artisan Plaza, Suite 400  
Honolulu, Hawaii, 96826 USA  
Phone: 808.946.2277  
Fax: 808.946.2253  
www.wilsonokamoto.com

Kamana'opono M. Crabbe, Ph.D.  
Ka Poughana, Chief Executive Officer  
Office of Hawaiian Affairs  
560 N. Nimitz Hwy., Suite 200  
Honolulu, Hawaii 96817

Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawai'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, O'ahu, Hawai'i

Dear Dr. Crabbe:

Thank you for your letter dated January 9, 2015 (HRD 14/7327) regarding the subject pre-assessment consultation. We offer the following response to your comments:

We acknowledge that you have determined that the project will take place on lands returned to the State of Hawai'i under Public Law 88-233 and thus part of the Public Land Trust established by Section 5(f) of the Admission Act. This will be confirmed in the forthcoming Draft EA. The Polynesian Voyaging Society has and will continue to a consulted party to the EA process. Appropriate measures to seek comment from parties potentially impacted by the proposed project will be taken.

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST





**OFFICE OF PLANNING  
STATE OF HAWAII**

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

DAVID Y. IBE  
GOVERNOR  
LEO R. ASUNCION  
ACTING DIRECTOR  
OFFICE OF PLANNING

Telephone: (808) 587-2846  
Fax: (808) 587-2824  
Web: <http://planning.hawaii.gov/>

Ref. No. P-14615

December 22, 2014



Mr. Earl Matsukawa, AICP  
Wilson Okamoto Corporation  
1907 S. Beretania Street, Suite 400  
Honolulu, Hawaii 96826

Dear Mr. Matsukawa:

Subject: Pre-Consultation for a Draft Environmental Assessment (EA), University of Hawaii School of Ocean and Earth Science and Technology (SOEST) and Marine Education Training Center (METC) Facilities at Sand Island, Honolulu Harbor TWMK: (1) 1-5-041:006 and 334 (por)

Thank you for the opportunity to provide early consultation comments on the University of Hawaii SOEST and METC harbor facilities at Sand Island. It is our understanding this project calls for the renovation of approximately 4.6 acres of land near Honolulu Harbor. The proposed renovations include: construction of a paved, fenced and lighted laydown/storage area, the relocation of a number of storage containers from the Pier 45 Snug Harbor facilities, the erection of tents and/or prefabricated storage units, and the replacement of the floating dock.

The Office of Planning (OP) has reviewed the documents sent to us by letter dated December 5, 2014, and has the following comments to offer:

1. The Office of Planning provides technical assistance to state and county agencies in administering the statewide planning system in Hawaii Revised Statutes (HRS) Chapter 226, the Hawaii State Plan. The Hawaii State Plan provides goals, objectives, priorities, and priority guidelines for growth, development, and the allocation of resources throughout the State. The Hawaii State Plan includes diverse policies and objectives of state interest including but not limited to the economy, agriculture, the visitor industry, federal expenditure, the physical environment, facility systems, socio-cultural advancement, climate change adaptation, and sustainability.

The Draft EA should include an analysis on the Hawaii State Plan, HRS Chapter 226, in a section that addresses whether this project conforms or is in conflict with state and county plans, policies, and controls. The analysis should include a discussion on the project's ability to meet the objectives and policies listed in HRS Chapter 226.

2. The Office of Planning is the lead agency for the Hawaii Coastal Zone Management Program. The coastal zone management area is defined as "all lands of the State and the area extending seaward from the shoreline to the limit of the State's police power and management authority,

Mr. Earl Matsukawa, AICP  
December 22, 2014  
Page 2

including the U.S. territorial sea" see HRS § 205A-1 (definition of "coastal zone management area").

3. The Draft EA should include in a section that addresses how this project conforms or is in conflict with state and county plans, policies, and controls, a statement that discusses the proposed project's ability to meet all of the objectives and policies set forth in HRS § 205A-2. Where a conflict or inconsistency exists, the statement must describe the extent to which the applicant has reconciled its proposed action with HRS § 205A-2. These objectives and policies include: recreational resources, historic resources, scenic and open space resources, coastal ecosystems, economic uses, coastal hazards, managing development, public participation, beach protection, and marine resources.
4. In the Draft EA, please provide a list of any federal, state, or county permits required for this project. A listing of required permits will allow the Office of Planning to verify the necessity of conducting a Coastal Zone Management Federal Consistency evaluation.
5. The proposed project lies within the Special Management Area (SMA) delineated by the City and County of Honolulu. Please consult with the Department of Planning and Permitting on the procedures and requirements for addressing SMA regulations.
6. The weather patterns on the south shore of Honolulu are typically sunny and dry; however this area, as well as the entire island chain, can be subject to flashy and unstable weather conditions during the winter that may lead to heavy rainfall and water runoff. Therefore, please consider utilizing OP's *Stormwater Impact Assessment* to identify and evaluate information on hydrology, stressors, sensitivity of aquatic and riparian resources, and management measures to control runoff occurrences. In particular, please examine the section on Low-Impact Development concepts, which include decentralized micro-scale controls that infiltrate, filter, store, re-use, evaporate, and detain runoff close to its source.

This guidance document will assist in integrating stormwater impact assessment within your review process. The purpose of this document is to provide guidance on assessing stormwater impacts in the planning phase of project development. The goal is to provide a suggested framework and various tools for integrating stormwater impacts assessment. These concepts are listed on pages 14-16 of the *Stormwater Impact Assessment* guidance. This can be found at [http://files.hawaii.gov/dhadr/op/czm/initiative/stormwater\\_impact\\_final\\_stormwater\\_impact\\_assessments\\_guidance.pdf](http://files.hawaii.gov/dhadr/op/czm/initiative/stormwater_impact_final_stormwater_impact_assessments_guidance.pdf).

If you have any questions regarding this comment letter, please contact Josh Hekeikia of our office at 587-2845.

Sincerely,



Leo R. Asuncion  
Acting Director





10056-01  
May 1, 2015

1907 South Beretania Street  
Artesian Plaza, Suite 400  
Honolulu, Hawaii, 96826 USA  
Phone: 808.946.2277  
Fax: 808.946.2253  
www.wilsonokamoto.com

Mr. Leo Asuncion  
Acting Director  
Office of Planning  
State of Hawaii  
235 South Beretania Street, 6<sup>th</sup> Floor  
Honolulu, Hawaii; 96813

Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawaii'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, O'ahu, Hawaii'i

Dear Mr. Asuncion:

Thank you for your letter dated December 22, 2014 (Ref. No. P-14615) regarding the subject pre-assessment consultation. We offer the following responses to your comments:

1. The forthcoming Draft EA will discuss the proposed project's conformance with the Hawaii'i State Plan, HRS Chapter 226, and its ability to meet the objectives and policies listed therein.
2. We acknowledge that the Office of Planning is the lead agency for the Hawaii'i Coastal Zone Management Program.
3. The forthcoming Draft EA will contain a discussion of the subject project's conformance with applicable State and County plans, policies, and controls as well its ability to meet the objectives and policies set forth in HRS § 205A-2.
4. A list of required federal, state, and county permits will be included in the forthcoming Draft EA.
5. We concur that the subject project lies within the City's Special Management Area (SMA). The proposed project will comply with applicable Department of Planning and Permitting procedures and requirements under Chapter 25, Revised Ordinances of Honolulu.
6. Thank you for the referral to OP's *Stormwater Impact Assessment* as guidance for assessing stormwater impacts in the planning phase of project development. We have forwarded the referent to the University for consideration in project design.



10056-01  
Letter to Mr. Leo Asuncion  
Page 2  
May 1, 2015

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST

DAVID Y. IGE  
GOVERNOR OF HAWAII



**STATE OF HAWAII**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**

STATE HISTORIC PRESERVATION DIVISION  
KAKUIHEWA BUILDING  
601 KAMOKILA BLVD., STE 555  
KAPOLEI, HAWAII 96707



CARTY S. CHANG  
INTERIM CHAIRPERSON  
COMMISSION ON WATER RESOURCE MANAGEMENT  
FIRST DEPUTY  
WILLIAM M. TAM  
DEPUTY DIRECTOR, WATER  
AGUATE RESOURCES  
BOA MEMBER  
HONORARY CHAIRMAN  
HONORARY CHAIRMAN  
COMMISSION ON NATURAL RESOURCES  
CONSERVATION AND RESTORATION  
FISHERY AND WILDLIFE  
KAOLOAWE ISLAND RESERVE COMMISSION  
STATE PARKS

January 6, 2015

Russell Y. Tsuji, Administrator  
Department of Land and Natural Resources  
Land Division  
P.O. Box 621  
Honolulu, HI 96809

Dear Mr. Tsuji:

**SUBJECT: Chapter 6E-8 Historic Preservation Review-  
Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawai'i SOEST and METC Facilities at Sand Island  
Honolulu Ahupua'a, Kona District, Island of O'ahu  
TMK: (1) 1-5-041:006 pgs. 334 pgs.**

Thank you for the opportunity to comment on this request for a pre-assessment consultation in support of preparation of an environmental assessment (EA) for the proposed improvements at the Honolulu Community College's (HCC) Marine Education Training Center (METC) at Sand Island. We received your letter on December 15, 2014. According to your submittal the closure of the UH Marine Center at Pier 45 Snugg Harbor Facility, the University of Hawai'i (UH) School of Ocean and Earth Science and Technology (SOEST) is relocating its' small boat operations to the proposed Sand Island Small-Boat Facility and Floating Dock adjacent to HCC's METC at Sand Island. The proposed project site is a 4.6-acre portion of 141 acre parcel identified as TMK: (1) 1-5-041:006. In addition, the following three easements are proposed: (1) a submerged land easement at the METC waterfront, (2) a land easement over an existing roadway within the 4.6 acre portion, and (3) a land easement within TMK: (1) 1-5-041:334. The lands are currently owned by the State of Hawaii Department of Transportation, Harbors Division. The proposed improvements will consist of (1) constructing a paved, fenced and lighted laydown/storage area, and (2) installing a new larger floating dock to replace the existing floating dock facing the METC.

Our records indicate no archaeological inventory survey have been conducted, and that no historic properties have been identified within the proposed project area. The soils identified within the project area consists of dredged fill materials (Foote et al. 1972). In addition, SHPD previously determined that no historic properties will be affected by several projects within the project TMK: (1) 1-5-041:006 (August 13, 2008; Log No. 2008.3344, Doc No. 0808ED27, and October 6, 1992; Log No. 6312, Doc No. 9210TD04). Based on the above, **we believe no historic properties will be affected.**

Please attach to the permit: In the unlikely event that subsurface historic resources, including human skeletal remains, structural remains, cultural deposits, artifacts, sand deposits, or sink holes are identified during the demolition and/or construction work, cease work in the immediate vicinity of the find, protect the find from additional disturbance, and contact the State Historic Preservation Division, at (808) 692-8015.

Please contact me at (808) 692-8019 or at [Susan.A.Lebo@hawaii.gov](mailto:Susan.A.Lebo@hawaii.gov) if you have any questions or concerns regarding this letter.

*Susan A. Lebo*  
Susan A. Lebo, PhD  
O'ahu Lead Archaeologist

cc: Steve Molmen, Land Div (Steve.Molmen@hawaii.gov)  
Keola Chang, Wilson Okamoto Corp. (woc@wilsonokamoto.com)



10056-01  
May 1, 2015

Ms. Susan Lebo, O'ahu Lead Archaeologist  
Department of Land and Natural Resources  
State Historic Preservation Division  
Kakuihewa Building  
601 Kamokila Blvd., STE 555  
Kapolei, Hawaii'i 96707

**Subject: Environmental Assessment (EA) Pre-Assessment Consultation  
University of Hawai'i  
SOEST and METC Facilities at Sand Island  
Tax Map Keys (TMK) 1-5-41: portions of 6 and 334  
Honolulu, O'ahu, Hawai'i**

Dear Dr. Lebo:

Thank you for your letter dated January 6, 2015 (Log No.: 2014.055 38) regarding the subject pre-assessment consultation.

Based on your discussion with Dr. David Shideler of Cultural Surveys Hawaii (CSH) prior to our initiation of the pre-assessment consultation for this EA, we understood that an archaeological inventory survey would be required because a portion of the project site may overlay a portion of a former natural island that was covered with fill material to build what is now Sand Island. CSH subsequently prepared an archaeological assessment report that was submitted to your office for review and acceptance and it will also be appended to the forthcoming Draft EA. We understand that your letter referenced above should have reflected your position regarding the report prepared by CSH.

Your letter, along with this response, will be reproduced and included in the forthcoming Draft EA. We appreciate your participation in the pre-assessment consultation review process.

Sincerely,

Earl Matsukawa, AICP  
Project Manager

cc: Mr. Maynard Young, UH-OCI  
Mr. Alexander "Sandy" Shor, UH-SOEST



## **University of Hawai'i**

School of Ocean and Earth Science and Technology  
Marine Education Training Center Facilities at Sand Island

### **Draft Environmental Assessment**

**Wilson Okamoto Corporation**

Engineers & Planners  
1907 South Beretania Street, Suite 400  
Honolulu, Hawaii 96826

