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July 17, 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 Hawai'i hereby transmits the attached Final Environmental Assessment and Finding of No Significant Impact (FEA-FONSI) for the subject project and anticipates a Finding of No Significant Impact. The FEA-FONSI has been prepared pursuant to Chapter 343, Hawaii Revised Statutes and Chapter 11-200, Hawai'i Administrative Rules. Please publish notice of this FEA-FONSI in the August 8, 2015 issue of OEQC's *The Environmental Notice*.

Included in the FEA-FONSI are copies of comments and responses that the University of Hawai'i received during the 30-day public comment period on the draft environmental assessment and anticipated finding of no significant impact (DEA-AFONSI).

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

- Hardcopy of the OEQC publication form and two hardcopies of the FEA-FONSI; 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

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
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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

Status (check one only):

_X_ FEA-FONSI	Submit the proposing agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and a PDF copy (send both summary and PDF to oeqchawaii@doh.hawaii.gov); no 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

Final Environmental Assessment/ Finding of No Significant Impact



July 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 HAWAI'I SYSTEM

Office of Capital Improvements

July 17, 2015

Jessica Wooley, Director
State of Hawai'i
Office of Environmental Quality Control
235 South Beretania Street, Room 702
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Telephone: (808) 956-7935
Fax: (808) 956-3175

An Equal Opportunity/Affirmative Action Institution

FINAL ENVIRONMENTAL ASSESSMENT
FINDING OF NO SIGNIFICANT IMPACT

University of Hawai‘i
School of Ocean and Earth Science and Technology and Marine Education Training Center Facilities at Sand Island

Honolulu, O‘ahu, Hawai‘i

Prepared For:

University of Hawai‘i
Office of Capital Improvements
1960 East-West Road, Biomedical Sciences
Honolulu, Hawai‘i 96822

Prepared By:

Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawai‘i 96826

WOC Job No. 10056-01

July 2015

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Appendix B Archaeological Assessment, for the School of Ocean and Earth Science and Technology (SOEST), Sand Island, Oʻahu, Hawaiʻi. TMKs: [1] 1-5-041:334 por. and 006 por. Cultural Surveys Hawaiʻi, 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, Hawaiʻi 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 Hawaiʻi SOEST and METC Facility at Sand Island. Wilson Okamoto Corporation, January 2015.

Appendix E Pre-Assessment Consultation Comment and Response Letters

Appendix F Draft Environmental Assessment Comment and Response Letters

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PREFACE

This Final Environmental Assessment (EA) / 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.

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SUMMARY

Proposing Agency:	University of Hawai‘i
Accepting Authority:	Governor, State of Hawai‘i
Location:	Honolulu, O‘ahu, Hawai‘i
Tax Map Keys (TMKs):	(1) 1-5-041: portions of 006 and 334
Recorded Fee Owner:	State of Hawai‘i, Department of Land and Natural Resources
Existing Use:	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.
State Land Use Classification:	Urban
Development Plan Designation:	Park and Public Facility
County Zoning Designation:	General Preservation (P-2)
Proposed Action:	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

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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). In its September 1991 Master Plan for the METC, Honolulu Community College (HCC) had designated the site for the future development of a Marine Propulsion Facility. That project, however, was never implemented.

1.1.1 Existing Uses

The site currently houses the Marine Educational Training Center (METC), an educational facility operated by 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 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).

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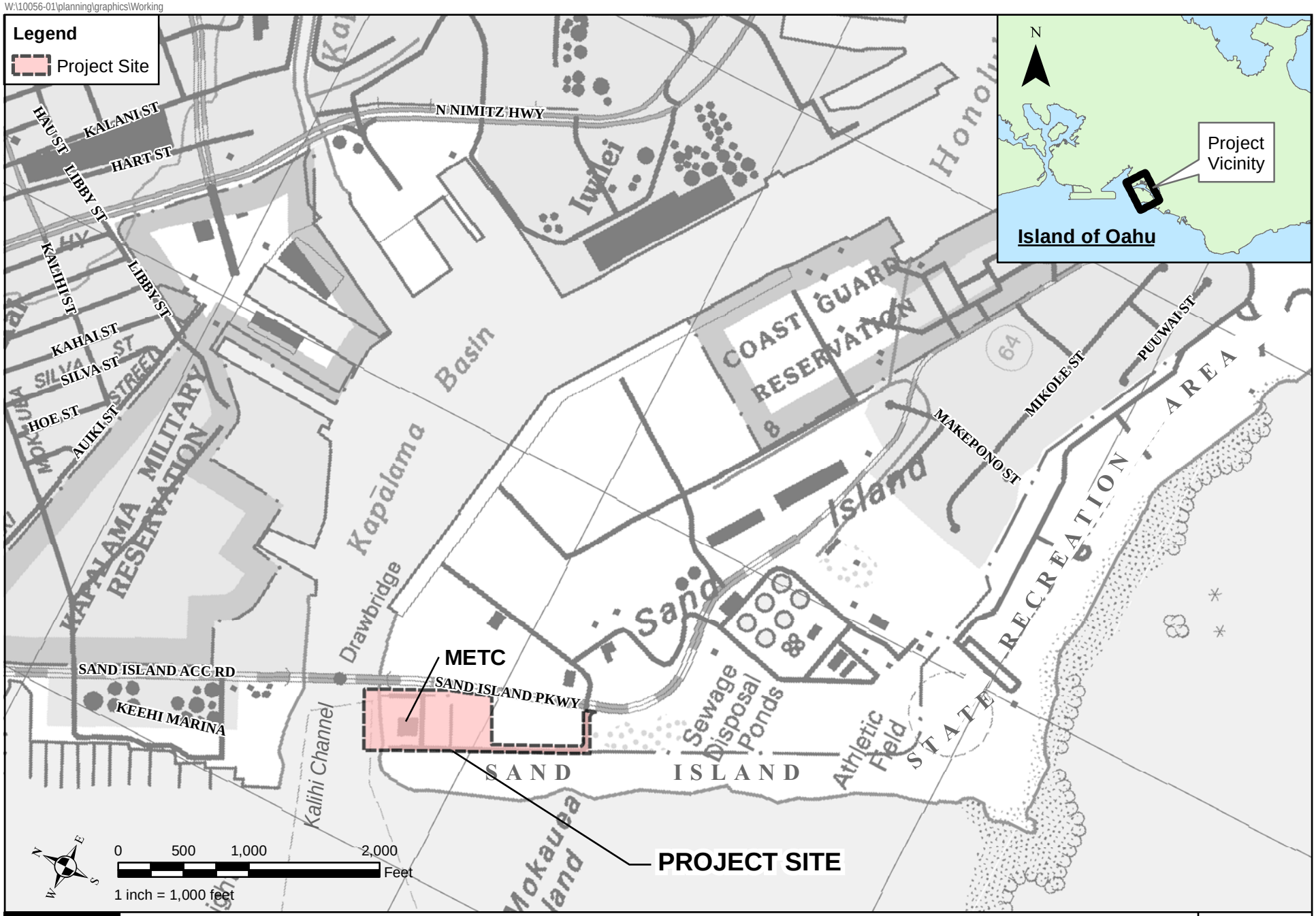

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SOEST AND METC FACILITIES AT SAND ISLAND

LOCATION MAP

FIGURE 1-1

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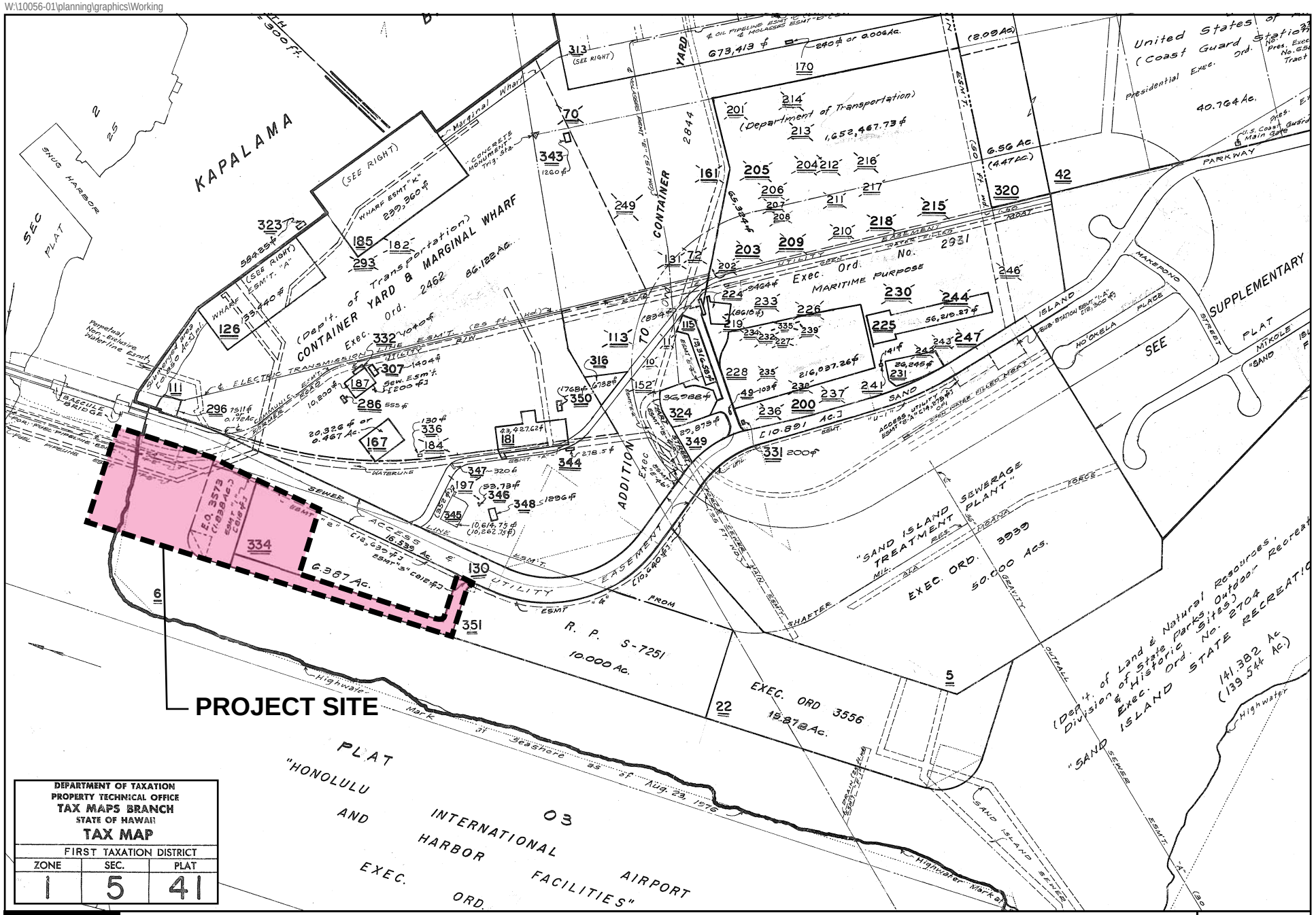

SOEST AND METC FACILITIES AT SAND ISLAND

TAX MAP KEY

FIGURE 1-2

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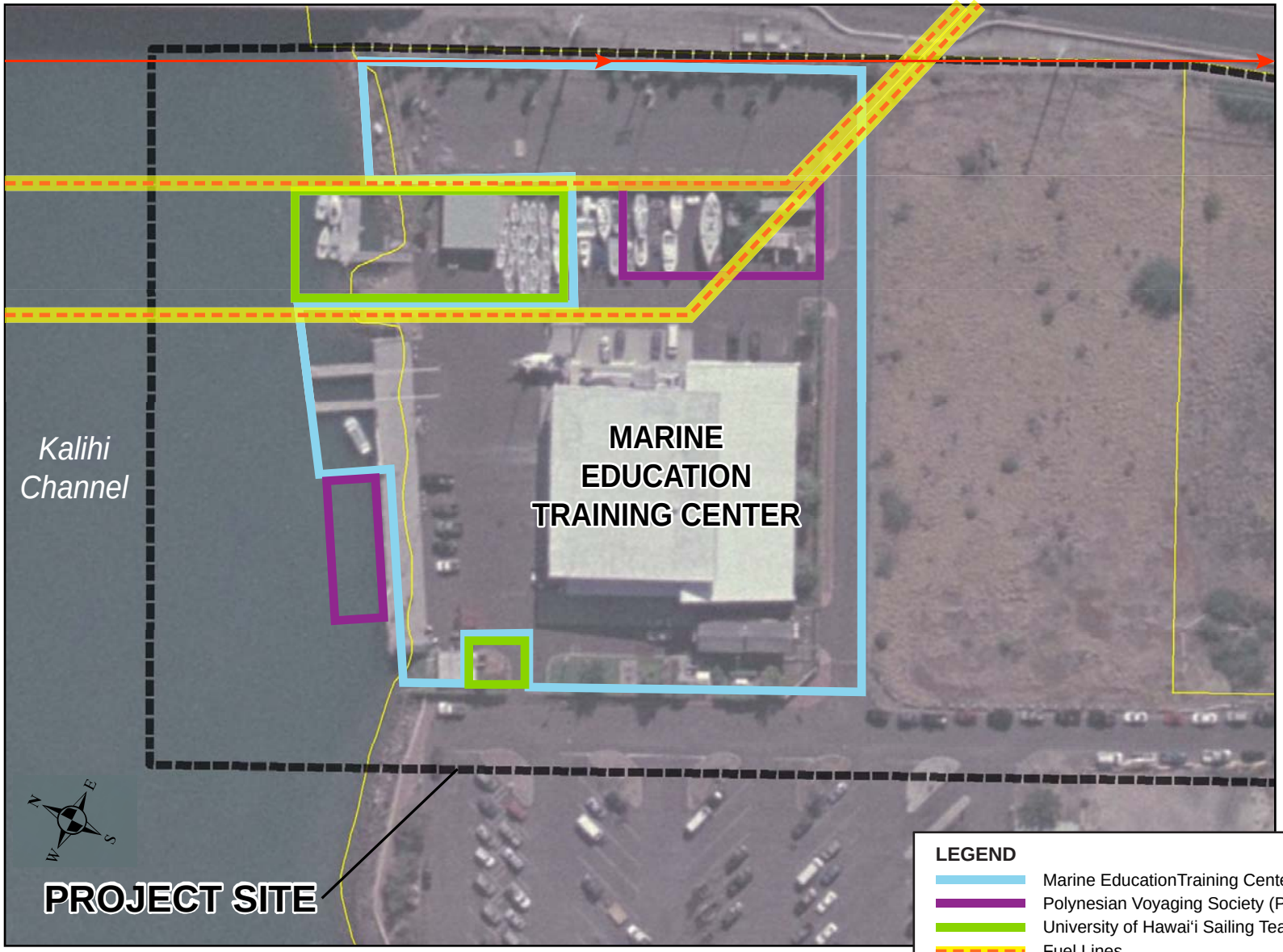

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SOEST AND METC FACILITIES AT SAND ISLAND

EXISTING USERS

FIGURE

1-4

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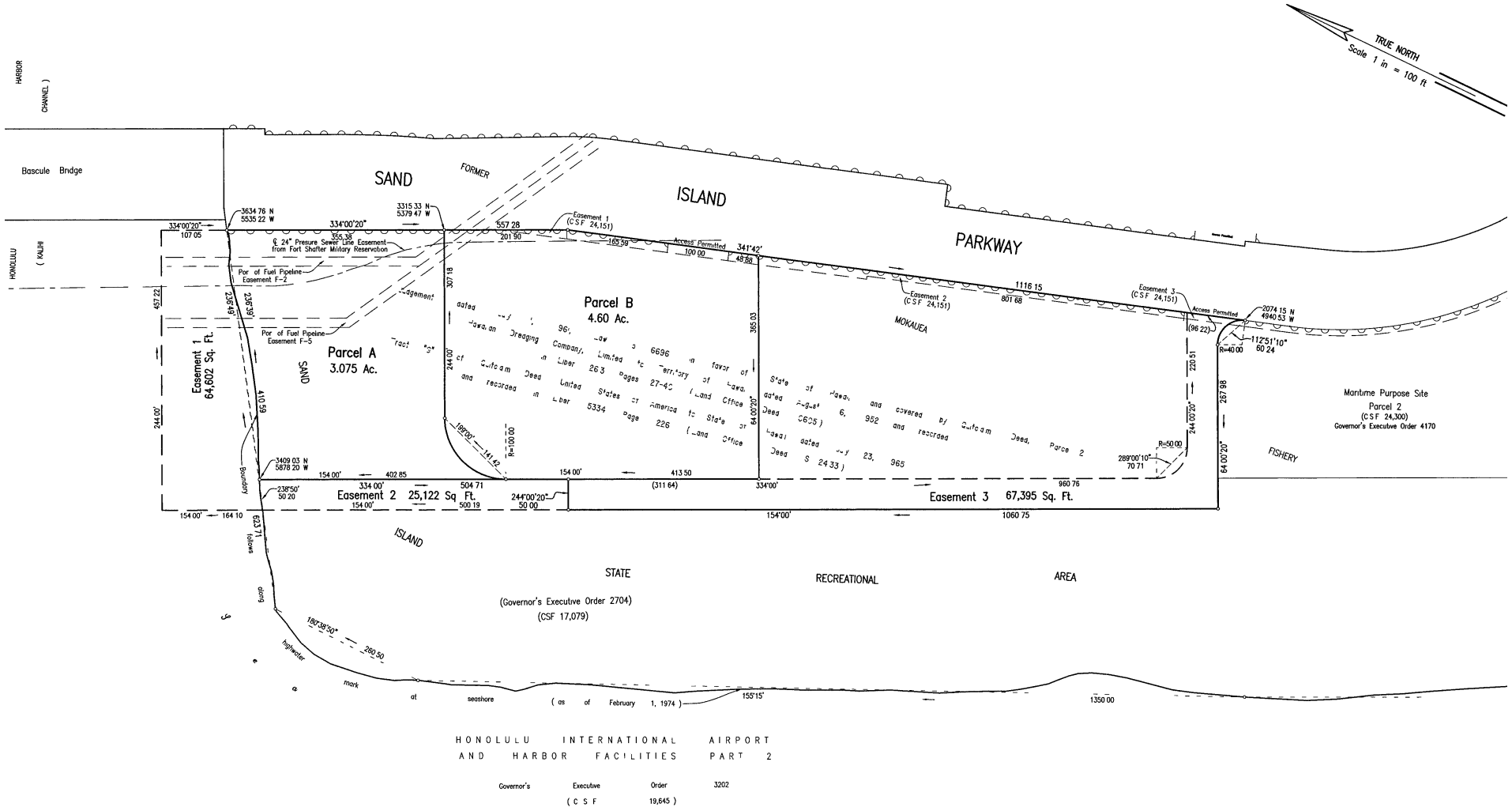

WILSON OKAMOTO CORPORATION

SOEST AND METC FACILITIES AT SAND ISLAND

PARCEL AND EASEMENT MAP

FIGURE 1-3

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WILSON OKAMOTO CORPORATION

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).

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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.

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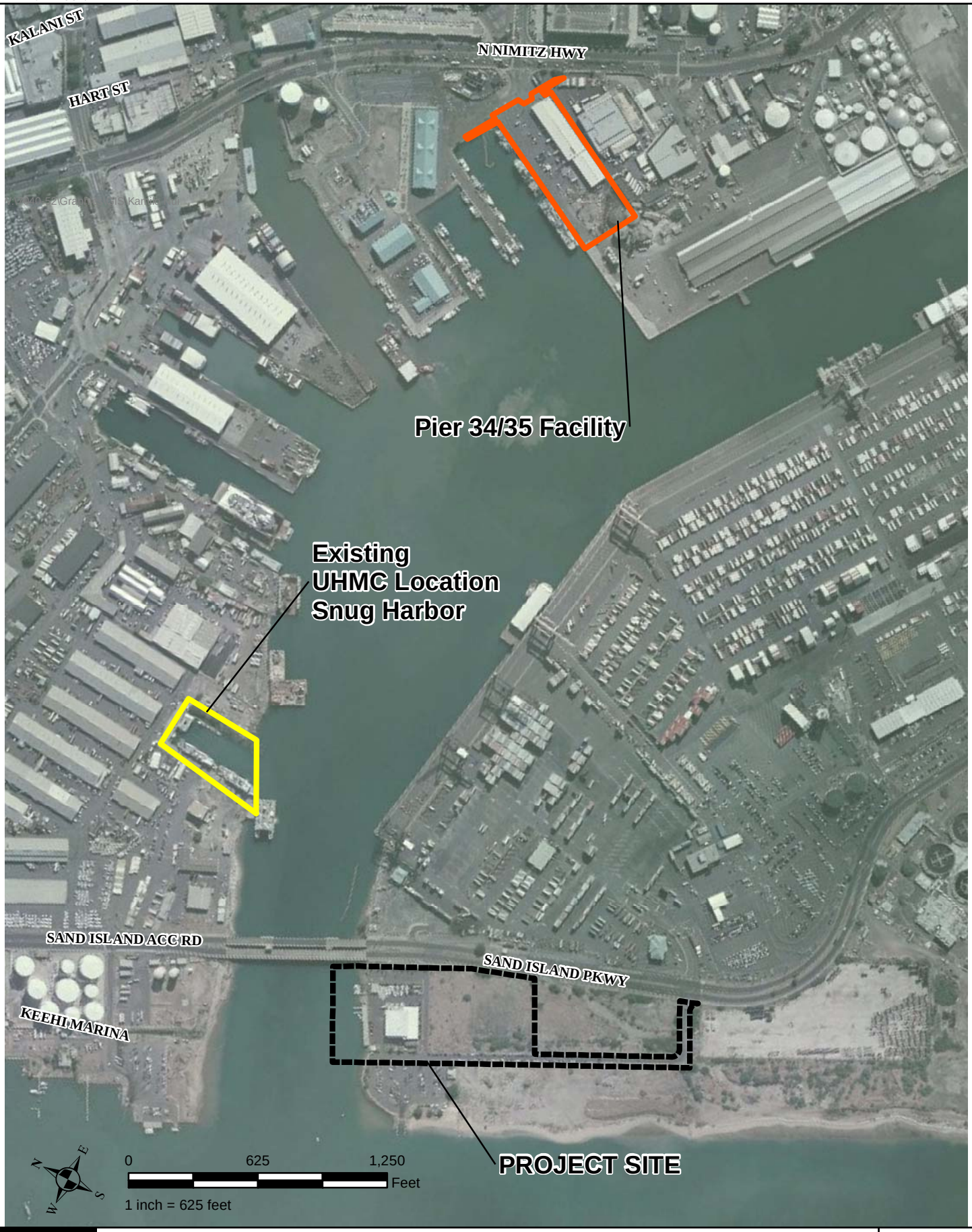

WILSON OKAMOTO CORPORATION

SOEST AND METC FACILITIES AT SAND ISLAND

RELOCATION OF UHMC

FIGURE

2-1

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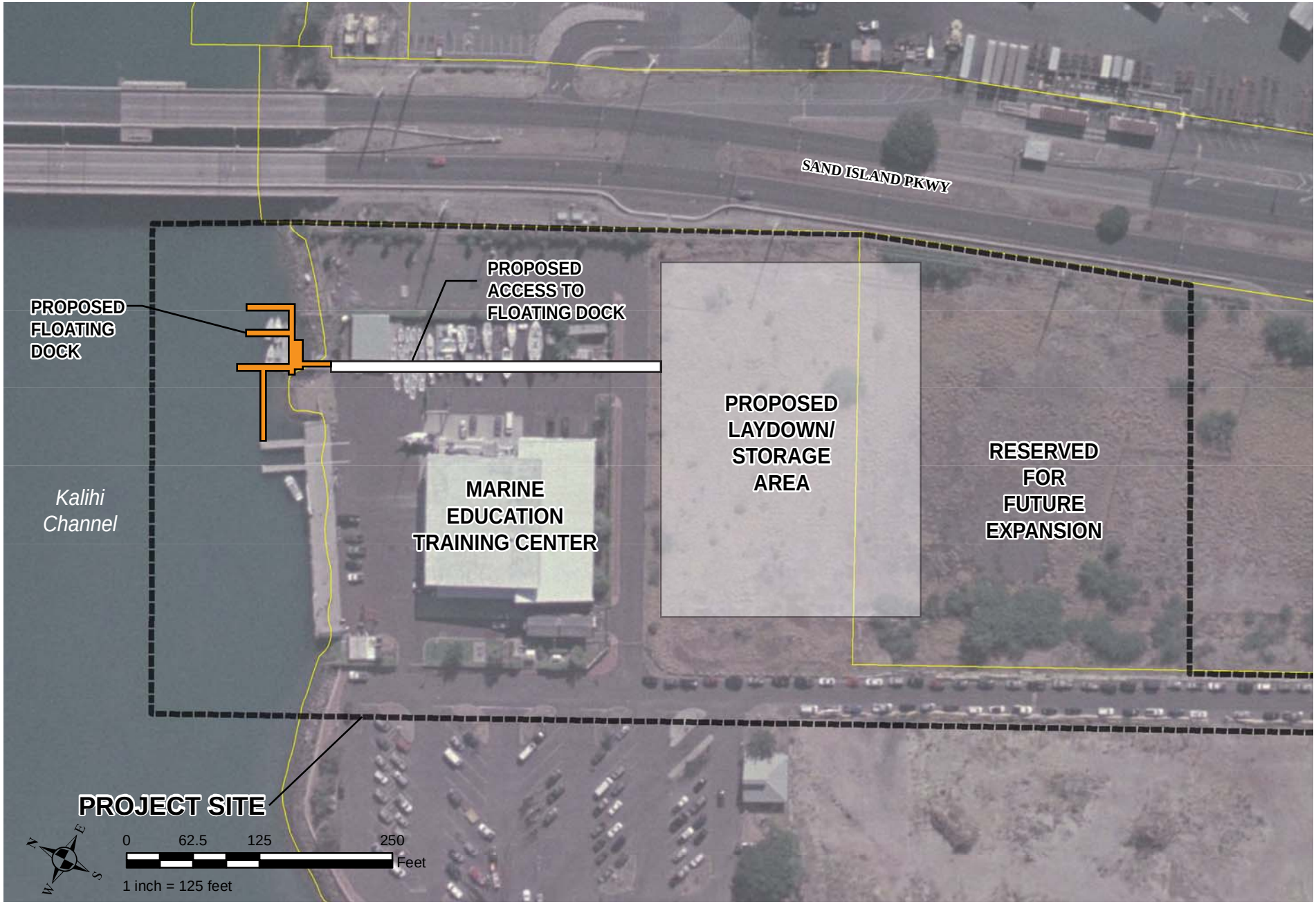

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SOEST AND METC FACILITIES AT SAND ISLAND

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 20th 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 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 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 Kapālama 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. Kapālama Drainage Canal is located approximately 1,500 feet to the southeast of the subject property and empties into the Kapālama Basin.

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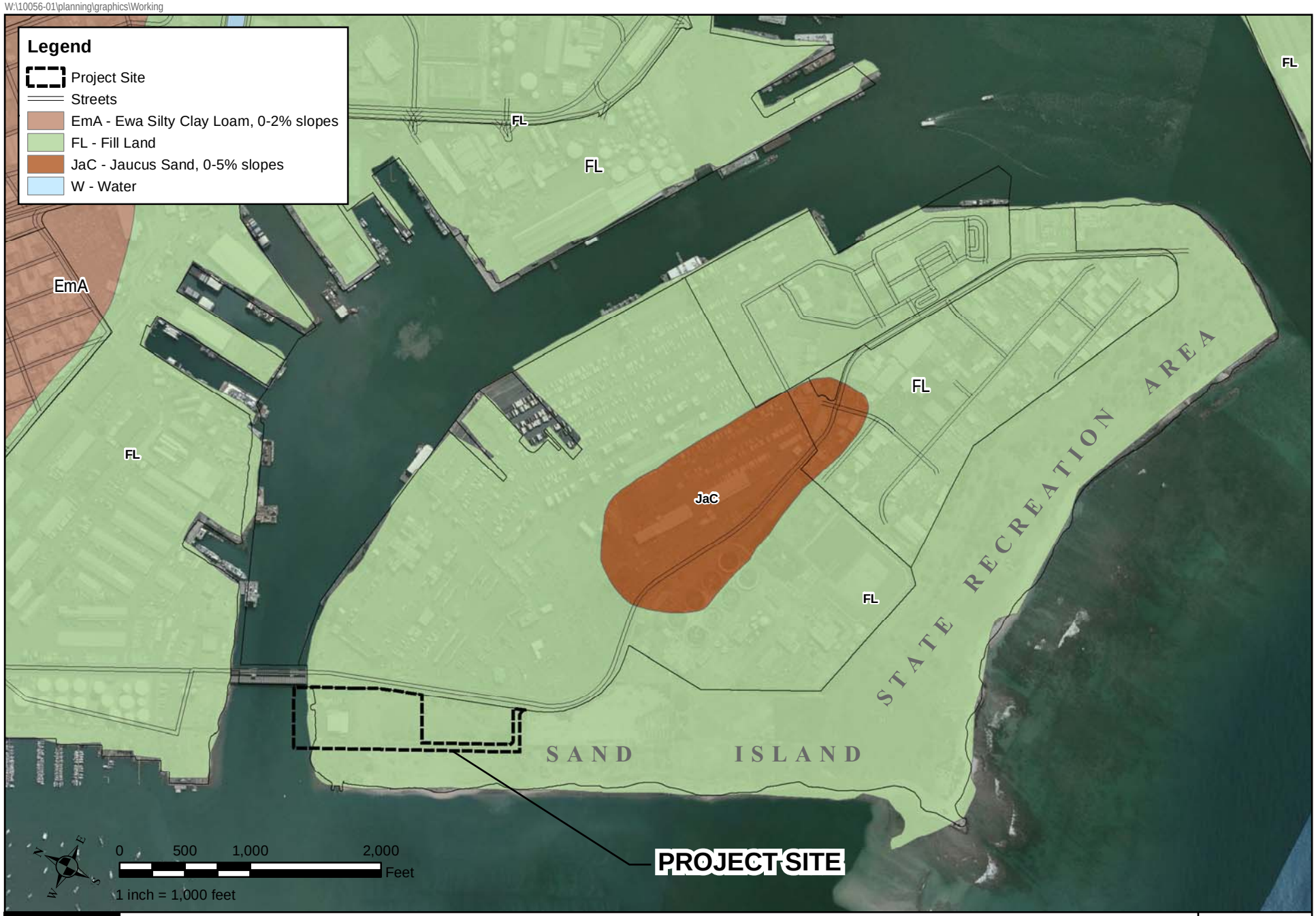

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SOEST AND METC FACILITIES AT SAND ISLAND

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, where it empties into Ke'ehi Lagoon near the seaplane runway, 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 is 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 Waiʻalae – East, Waiʻalae – West, Pālolo, Nuʻuanu, 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. Nuʻuanu 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.

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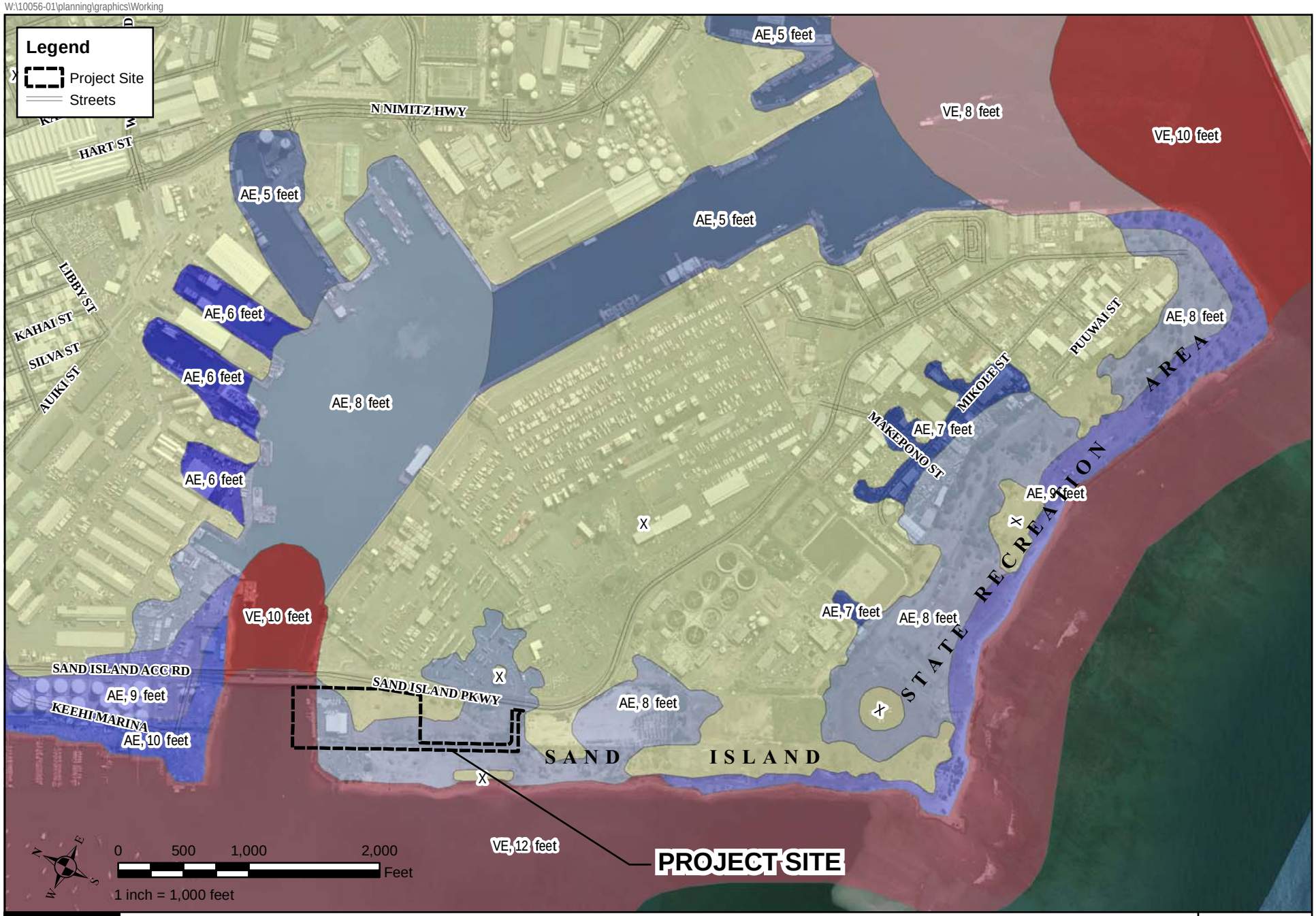

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SOEST AND METC FACILITIES AT SAND ISLAND

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 floaoting 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 (*Acriotheres 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 (*Plakobranchus ocellatus*), nudibranch (*Chromodoris vibratra*), black sea squirt (*Phallusia nigrai*), and oyster (*Dendrostrea 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/storage area.

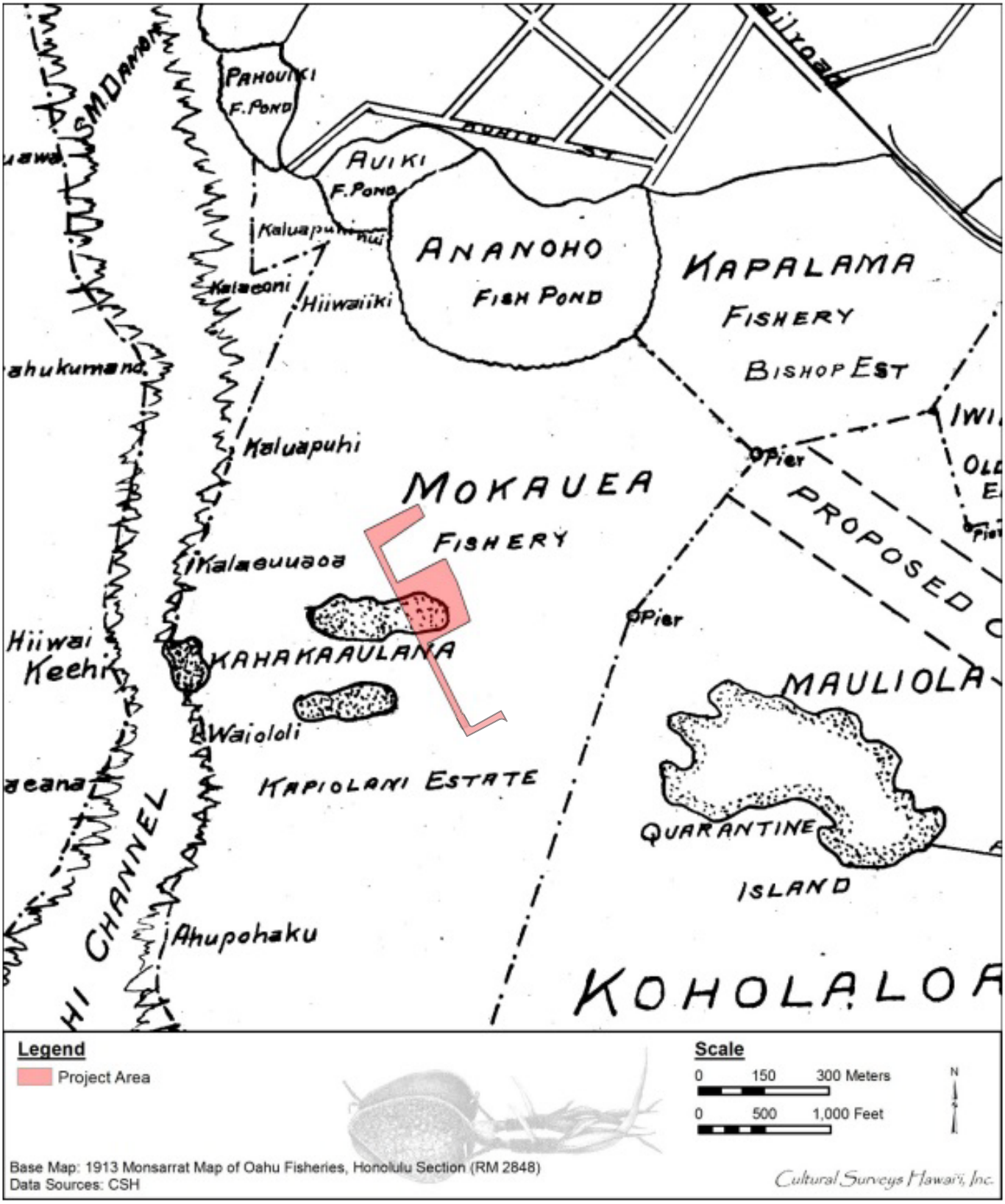
Background research indicates the project area is located within the traditional boundaries of the Mokauea Fishery. Maps indicate a portion of Mokauea Island existed within the project area prior to and in the early part of the twentieth century (See Figure 3-3). Subsurface testing for the presence/absence 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/storage 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/storage 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.

WILSON OKAMOTO CORPORATION	SOEST AND METC FACILITIES AT SAND ISLAND	FIGURE
	1913 MONSARRAT MAP	3-3



Source: Cultural Surveys Hawaii, Inc.

WILSON OKAMOTO CORPORATION	SOEST AND METC FACILITIES AT SAND ISLAND	FIGURE
	LOCATION OF TEST EXCAVATIONS	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_2), sulfur dioxide (SO_2), lead (Pb), ozone (O_3), and particulate matter (PM_{10} and PM_2). Hawai‘i has also established a state ambient air standard for hydrogen sulfide (H_2S) 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 (O3), and PM2.5 (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/storage 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 *deminimis* 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 the 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.

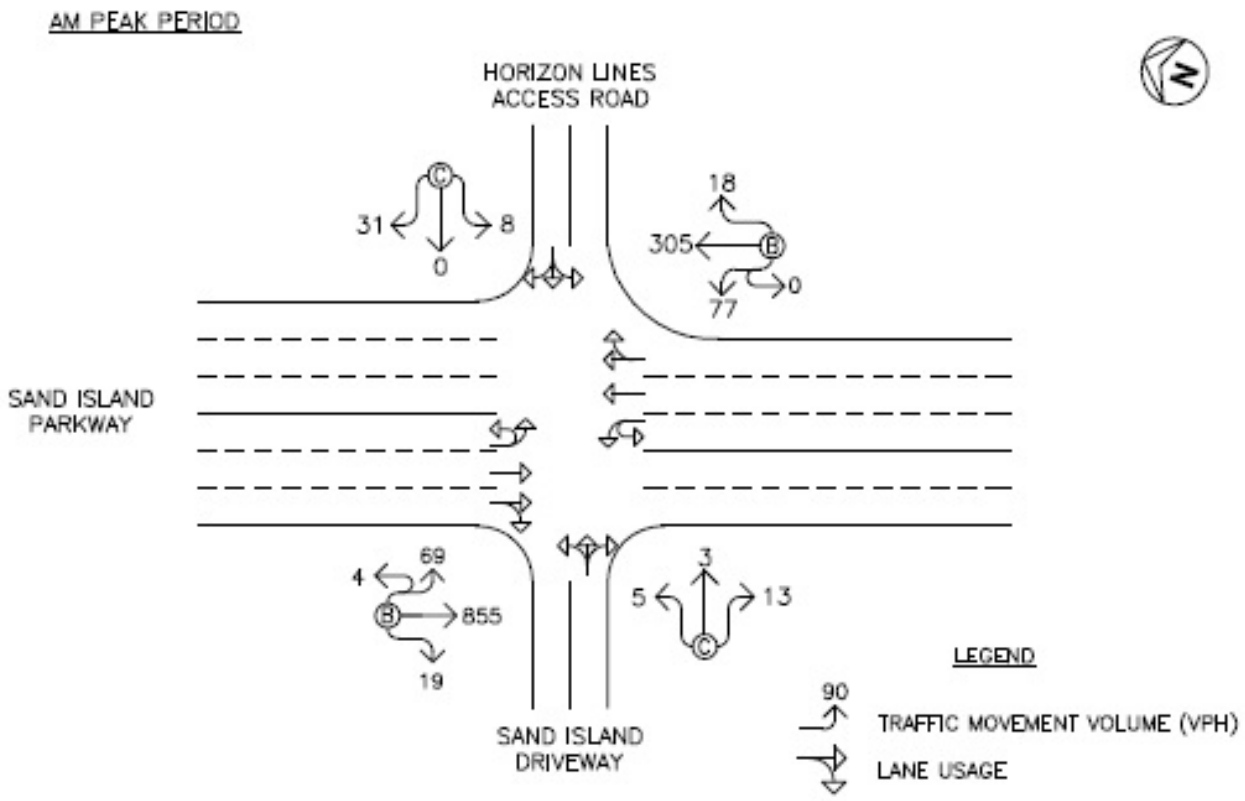
Impacts and Mitigation Measures

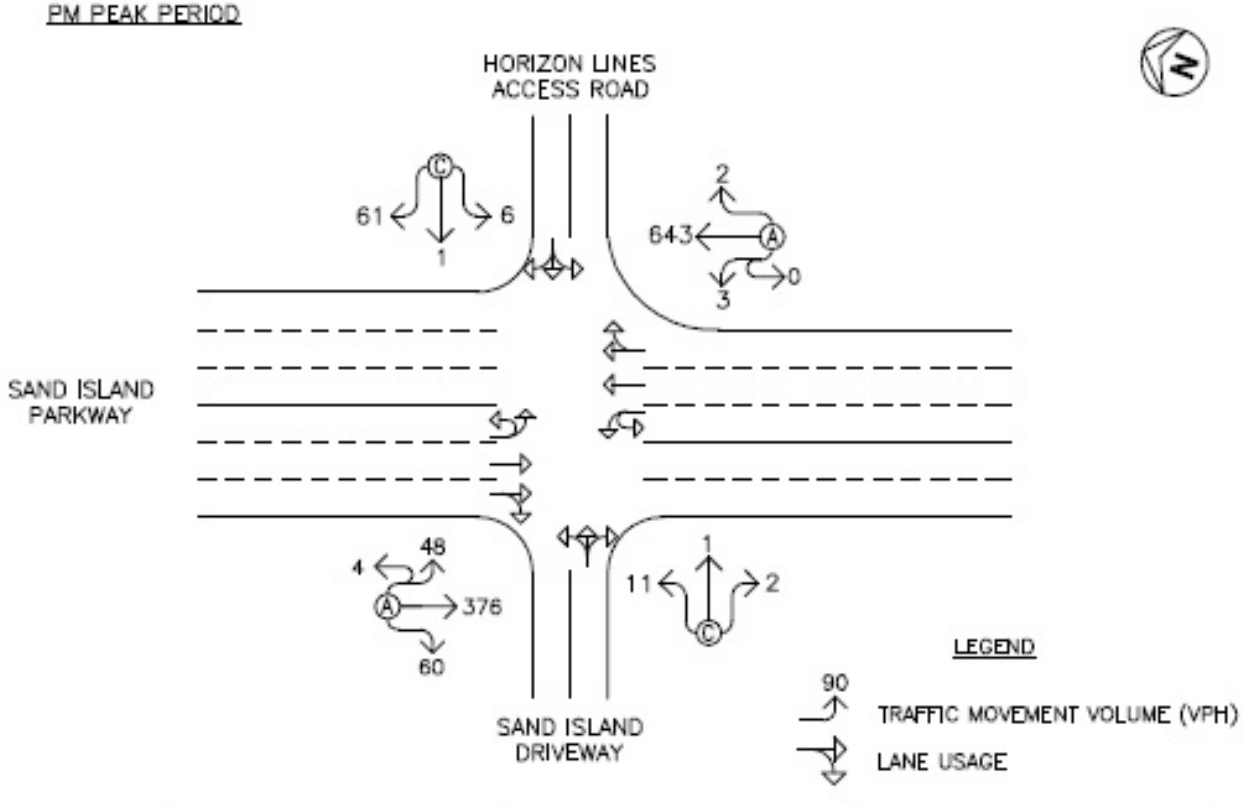
Site Generated Traffic

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.





Source: Wilson Okamoto Corporation

WILSON OKAMOTO CORPORATION	**SOEST AND METC FACILITIES AT SAND ISLAND**	FIGURE
	EXISTING TRAFFIC CONDITIONS	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/storage 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/storage 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-ʻĀnuenue (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 Oʻahu. 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-ʻĀNUENUE 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
INCOME								
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%
RACE								
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%
SOCIO-ECONOMIC CHARACTERISTICS								
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-ʻĀnuenue 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 Oʻahu.

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 recreational facilities include those at the METC, a boat ramp, canoe pavilion, and parking near the mouth of the 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 wastewater flows through the existing wastewater system as a result of constructing and operating 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 under 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/storage area. Based on amount of 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/storage 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.

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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 propose 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/storage 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/storage 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 weil 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

Federal Aviation Administration

- Form 7460-1 Notice of Construction

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

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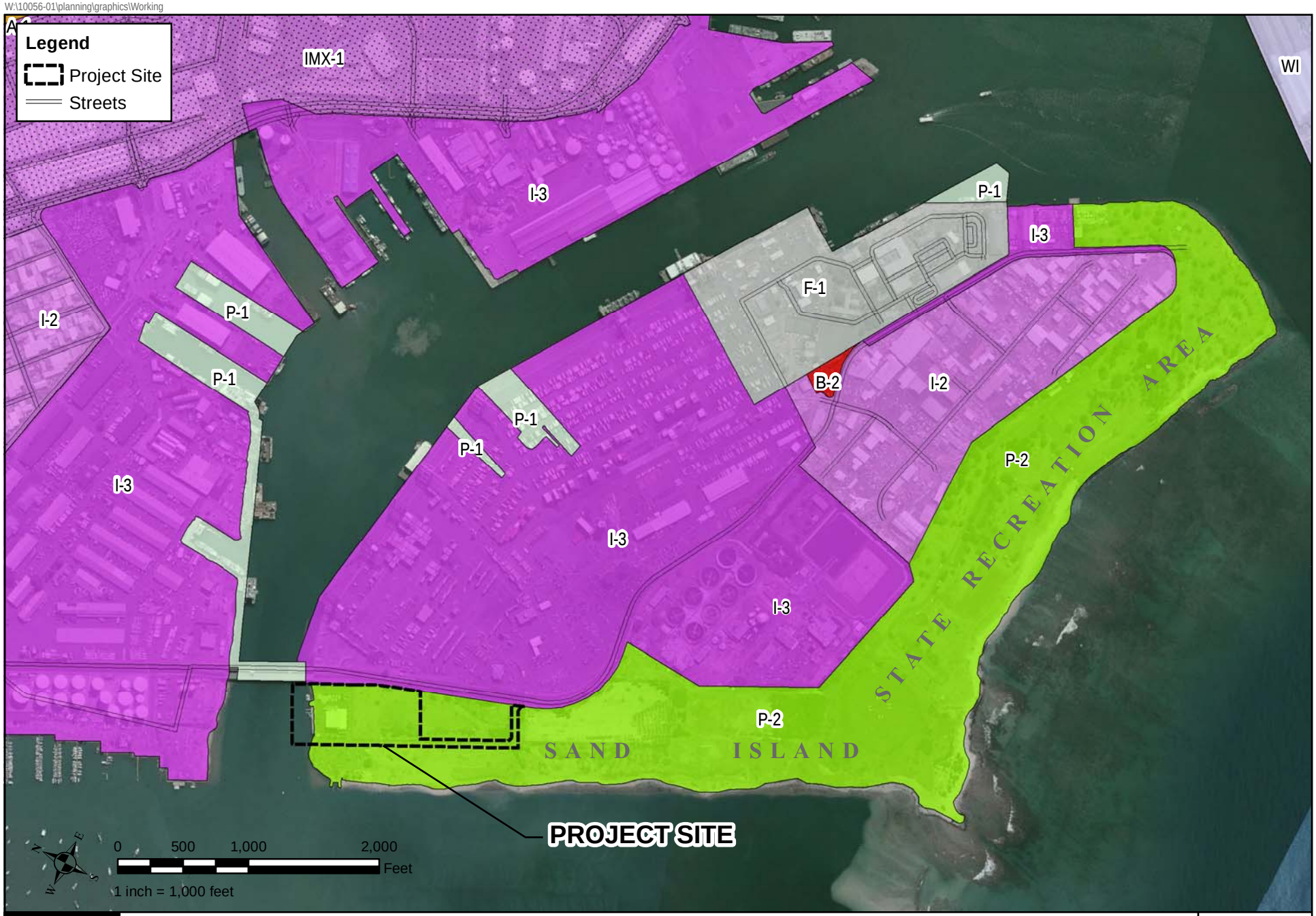

WILSON OKAMOTO CORPORATION

SOEST AND METC FACILITIES AT SAND ISLAND

ZONING MAP

FIGURE 4-1

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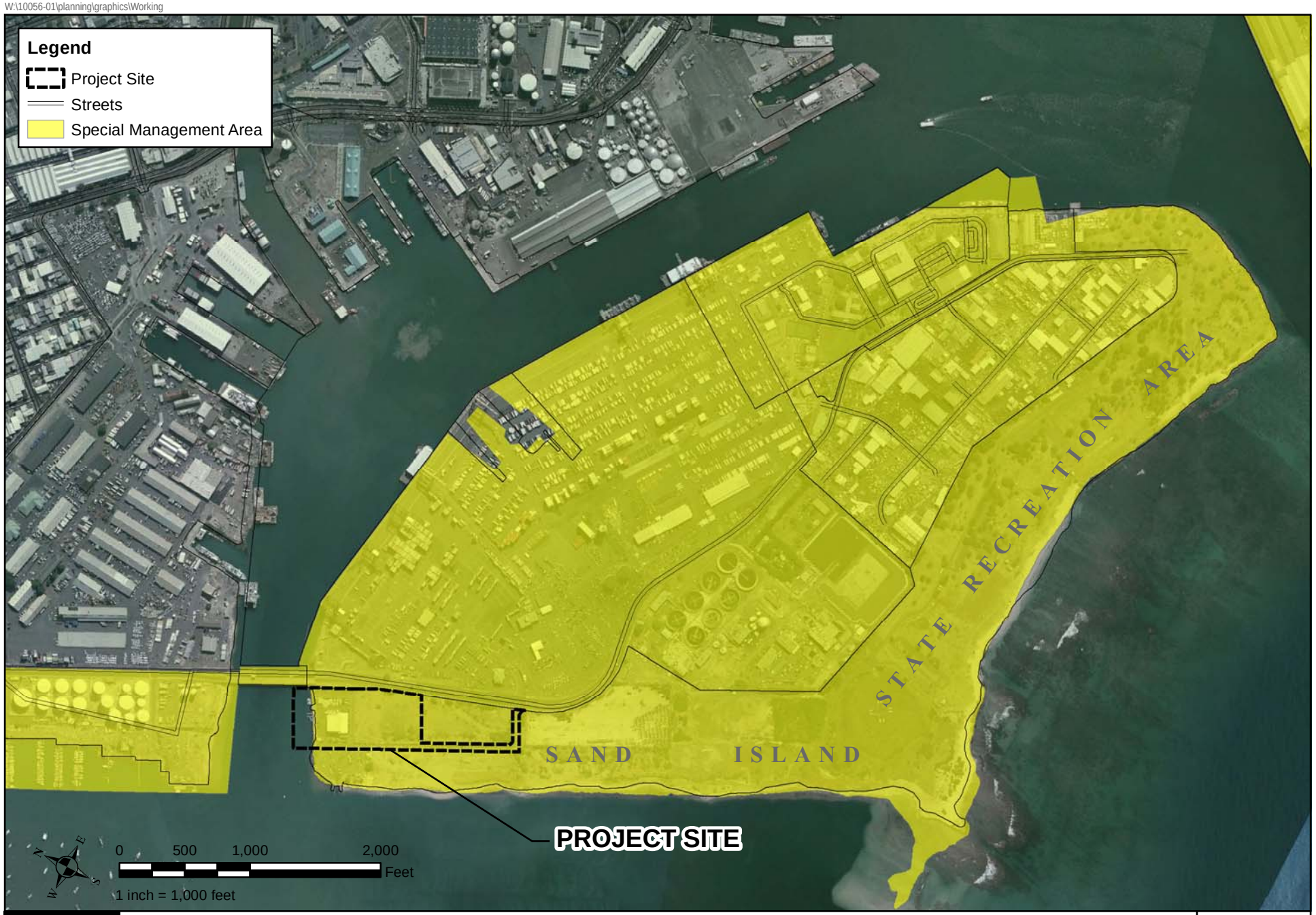

WILSON OKAMOTO CORPORATION

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 UHmarine 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. DETERMINATION OF FONSI

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 for a Finding of No Significant Impact (FONSI) 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) Detrimentally 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.

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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 and corresponding responses are reproduced in Appendix E.

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

7.2 Draft EA

During the public and agency comment period for the Daft EA, which began with the publication of the Draft EA in the OEQC's Environmental Notice on May 23. 2015 and ended 30 days later on June 22, 2013, comment letters were received from the following parties. All written comments received and corresponding responses are reproduced in Appendix F.

State Agencies

✓✓ Department of Health, Environmental Planning Offic
✓✓ Department of Transportation

8. REFERENCES

Federal Emergency Management Agency, *Flood Insurance Rate Map Panel No. 0353G*. gis.hawaiinfip.org/

City and County of Honolulu, *General Plan, Objectives and Policies* Amended October 3, 2002.

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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.

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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.

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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[1]

February 11, 2015 *AECOS* No. 1417

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[1] 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.

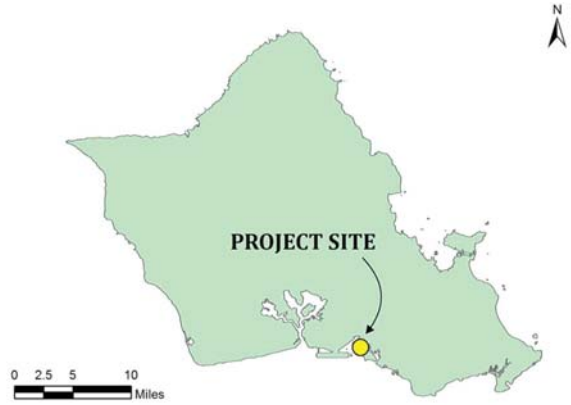

Figure 1. General location of Project area on the Island of O‘ahu.

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 (*Caijoa riisei*) 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 α. 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†
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)	Seal AA3 Autoanayzer, colorimetric
Nitrate + Nitrite	Grasshoff (1983)	Grasshoff (1983)	Seal AA3 Autoanayzer, colorimetric
Total Nitrogen	Grasshoff (1983)	Grasshoff (1983)	Seal AA3 Autoanayzer, UV
Total Phosphorus	Grasshoff (1983)	Grasshoff (1983)	Seal AA3 Autoanayzer, UV
Chlorophyll *a*	SM 10200-H	SM (1998)	Turner Fluorometer

† 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 Hawai'i* (Wagner, Herbst, & Sohmer, 1990, 1999) for native and naturalized flowering plants, *A Tropical Garden Flora* (Staples & Herbst, 2005) for crop and ornamental plants, and *Hawai'i'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 α). 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	25.5	7.33	109	7.99	35.0	1.05	4.5
Mid	25.5	7.55	112	8.09	35.0	1.33	5.9
Bottom	25.5	7.56	113	8.06	34.9	1.86	3.7
Channel							
Surface	25.6	7.53	112	8.13	35.0	1.40	4.5
Mid	25.5	7.57	113	8.25	35.1	1.46	3.2
Bottom	25.5	7.33	110	8.24	35.0	1.60	3.6
Corner							
Surface	25.6	7.40	110	8.25	35.0	1.36	3.2
Mid	25.5	7.58	114	8.25	35.1	1.35	3.1
Bottom	25.5	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 α 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 α (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 (*Elusine 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
	PTERIDOPHYTES		
NEPHROLEPIDACEAE			
Nephrolepis brownii (Desv.) Hovenkamp & Miyam.	sword fern	Nat	R
	FLOWERING PLANTS *DICOTYLEDONES*		
ACANTHACEAE			
Asystasia gangetica (L.) T.Anderson	Chinese violet	Nat	R
AIZOACEAE			
Sesuvium portulacastrum (L.) L	*'akulikuli*	**Ind**	C
AMARANTHACEAE			
Alternanthera pungens Kunth	khaki weed	Nat	R
Amaranthus viridis L.	slender amaranth	Nat	R
APOCYNACEAE			
Nerium oleander L	oleander	Orn	R
ASTERACEAE (COMPOSITAE)			
Bidens alba (L.) DC.	beggartick	Nat	U
Calyptocarpus vialis Less	---	Nat	U
Emilia fosbergii Nicolson	Flora's paintbrush	Nat	R
Pluchea carolinensis (Jacq.) G. Don	sourbush	Nat	O
Pluchea indica (L.) Less.	Indian fleabane	Nat	O
Pluchea x *fosbergii* Cooperr. & Galang	sourbush hybrid	Nat	R
Taraxacum officinale W.W.Weber ex F.H.Wigg.	common dandelion	Nat	R
Tridax procumbens L.	coatbuttons	Nat	C
BATACEAE			
Batis maritima L.	pickleweed	Nat	R
BORAGINACEAE			
Heliotropium curassavicum L.	seaside heliotrope	**Ind**	O
CAPPARACEAE			
Cleome gynandra L	wild spider flower	Nat	R
CLUSIACEAE			
Calophyllum inophyllum L.	*kamani*	**Pol**	R
CONVOLVULACEAE			
Ipomoea cairica (L.) Sweet	ivy leaf morning glory	Nat?	R
Ipomoea obscura (L.) Ker Gawl.	---	Nat	O

Table 4 (continued).

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

Table 4 (continued).

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

Table 4 legend:

Status = distributional status
- **End** = 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; not abundant anywhere
- 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*), *'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 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 (*Acriotheres 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			Station Point-Counts (SPC)						SPC
			Sta. 1		Sta. 2		Sta. 3		
Genus species	Common name	Status	Early AM	Late AM	Early AM	Late AM	Early AM	Late AM	Abundance (total/3)
CHORDATA, AVES	BIRDS								
COLOMBIFORMES									
COLUMBIDAE									
Columba livia Gmelin	Rock Dove	Nat	--	2	--	--	--	--	0.33
Geopelia striata L.	Zebra Dove	Nat	--	--	--	--	1	--	0.17
Streptopelia chinensis Scopoli	Spotted Dove	Nat	1	3	7	4	1	--	2.67
AVES, PASSERIFORMES									
ESTRILDIDAE									
Lonchura atricapilla Vieillot	Chestnut Munia	Nat	--	--	--	--	--	--	Incidental sighting
Lonchura cantans Gmelin	African Silverbill	Nat	3	--	--	--	--	--	0.50
PASSERIDAE									
Passer domesticus L.	House Sparrow	Nat	10	3	3	--	2	--	3.00
PYCNONOTIDAE									
Pycnonotus cafer L.	Red-vented Bulbul	Nat	--	--	2	--	--	--	0.33
STURNIDAE									
Acridotheres tristis L.	Common Myna	Nat	--	--	2	--	4	--	1.00
THRAUPIDAE									
Paroaria coronata J.F. Miller	Red-crested Cardinal	Nat	--	--	3	--	--	--	0.50
AVES, PELECANIFORMES									
ARDEIDAE									
Bubulcus ibis 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, *Hawaiian name*	Status	Abundance
CYANOPHYTA	**BLUE-GREEN ALGAE**		
Lyngbya majuscula		---	C
	SEAGRASS		
MAGNOLIOPHYTA			
Halophila decipiens		Nat	O
	INVERTEBRATES		
PORIFERA, DEMOSPONGIAE, MYXILLIDAE	Sponges		
Iotrochota protea	staining sponge	Ind	O
CHALINIDAE			
Sigmoadocia sp.	Boring sponge	Nat	O
MYCALIDAE			
Mycale sp.	---	Nat	O
CNIDARIA, HYDROZOA, ANTHOATHECATA			
PENNARIIDAE			
Pennaria disticha	Christmas tree hydroid	Ind	R
CNIDARIA, ANTHOZOA, OCTOCORALLIA, TELESTACEA			
TELESTIDAE			
Carijoa riisei	snowflake coral	Nat	R
CNIDARIA, ANTHOZOA, SCELRACTINIA	HARD CORALS		
POCILLOPORIDAE			
Pocillopora damicornis	lace coral	Ind	C
ACROPORIDAE			
Montipora capitata	rice coral	Ind	O
PORITIDAE			
Porites lobata	lobe coral, *pohaku puna*	Ind	C
FAVIIDAE			
Leptastrea bewickensis	bewick coral	Ind	O
Leptastrea purpurea	crust coral	Ind	O
Cyphastrea ocellina	ocellated coral	Ind	R

Table 6 (continued).

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

Table 6 (continued).

PHYLUM, CLASS, ORDER FAMILY *Species*	Common name, *Hawaiian name*	Status	Abundance
	VERTEBRATES		
VERTEBRATA, ACTINOPTERYGII, PERCIFORMES	BONY FISHES		
POMACENTRIDAE	DAMSELFISH		
Abudefduf abdominalis	Hawaiian sergeant, *mamo*	Ind	R
Abudefduf vaigiensis	Indo-Pacific sergeant, *mamo*	Ind	R
Dascyllus albisella	Hawaiian dascyllus, *āloʻiloʻi*	Ind	R
ACANTHURIDAE	SURGEONFISH		
Acanthurus triostegus	convict tang; *manini*	Ind	R
Acanthurus nigrofuscus	brown surgeonfish: *māʻiʻiʻi*	Ind	R
Zebrasoma flavescens	yellow tang *lau ʻī-pala*	Ind	R
MULLIDAE	GOATFISH		
Mulloidichthys flavolineatus	square spot goatfish, *wekeʻā*	Ind	O
Upeneus arge	bandtail goatfish, *weke pueo*	Ind	R
TETRAODONTIDAE	PUFFERFISH		
Arothron hispidus	stripebelly puffer, *ʻoʻopu hue*	Ind	R
OSTRACIIDAE	BOXFISH		
Ostracion meleagris	spotted boxfish, *moa*	Ind	R
CARANGIDAE			
Carangoides ferdau	barred jack, *ulua*	Ind	R
LUTJANIDAE	SNAPPER		
Lutjanus fulvus	blacktail snapper	Ind	O
SCORPAENIDAE			
Dendrochirus barberi	Hawaiian green lionfish	End	R
CHAETODONTIDAE	BUTTERFLYFISH		
Chaetodon auriga	threadfin butterflyfish; *kīkākapu*	Ind	R
Forcipiger flavissimus	common longnose butterflyfish; *lauwiliwili nukunukuʻoiʻoi*	Ind	R
ZANCLIDAE			
Zanclus cornutus	Moorish idol	Ind	O

Table 6 (continued).

PHYLUM, CLASS, ORDER FAMILY *Species*	Common name, *Hawaiian name*	Status	Abundance
SYNODONTIDAE unid *synodon*.	LIZARDFISH unid. lizardfish	Ind	O
CHORDATA, ASCIDACEA ENTEROGONA ASCIDIIDAE	TUNICATES		
Phallusia nigra	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 nigrai*), and oyster (*Dendrostrea sandvicensis*). A single black-lipped pearl 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*). Figure 6 displays representative photos of the bottom

in the survey area. A large bed of seagrass (*Halophlia 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-liped 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 α remain insufficient. Near shore waters from Sand Island Channel to Waikiki Beach are listed as impaired for turbidity. Data regarding ammonia and chlorophyll α 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 Hawaii's water quality standards. In fact, the state criteria for all nutrient measurements, turbidity, and chlorophyll α 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 1C° 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 ordnance)—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 moth) 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 hawaiiana*), an indigenous (*Ruppia maritime*), 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. hawaiiana* 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.

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APPENDIX B:

Archaeological Assessment,
Sand Island, Oʻahu, Hawaiʻi.
TMKs: [1] 1-5-041:334 por. and 006 por.
Cultural Surveys Hawaiʻi, 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

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Management Summary

Reference	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)
Date	January 2015
Project Number(s)	Cultural Surveys Hawai‘i, Inc. (CSH) Job Code: HONOLULU 56
Investigation Permit Number	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.
Agencies	State Historic Preservation Department (SHPD)
Land Jurisdiction	University of Hawai‘i, School of Ocean and Earth Science and Technology
Project Proponent	Wilson Okamoto Corporation
Project Funding	University of Hawai‘i
Project Location	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.
Project Description	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.
Project Acreage	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)
Area of Potential Effect (APE) and Survey Area Acreage	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).
Historic Preservation Regulatory Context	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 Statues (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. 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[2] and is intended for review and acceptance by the SHPD.
Fieldwork Effort	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.
Consultation	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 Bagood, 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 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.
Historic Properties Identified	None

Effect Recommendation	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.
Mitigation Recommendations	No historic properties are noted within the project area and no further archaeological work is recommended for the project area.

[1]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).

[2]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).

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Section 1 Introduction

1.1 Project Background

At the request of Wilson Okamoto Corporation, Cultural Surveys Hawai‘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 Training Center), Honolulu Ahupua‘a, Honolulu District, O‘ahu, TMKs: [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 Hammatt, 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.

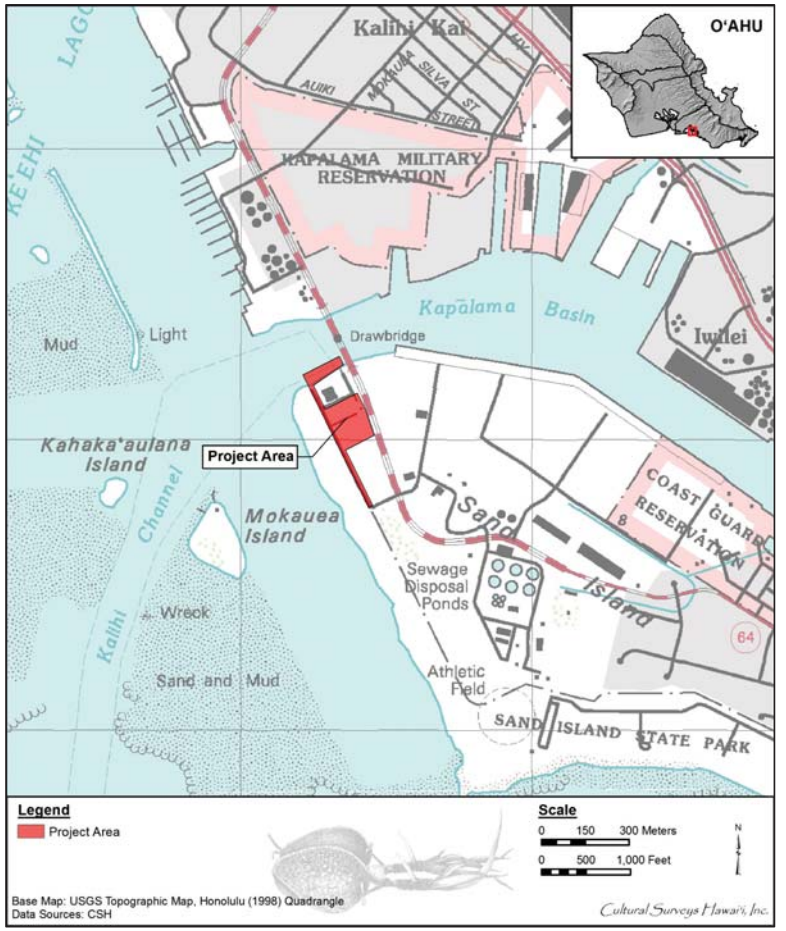

Figure 1. Portion of the 1998 Honolulu USGS 7.5 minute topographic quadrangle indicating the project area

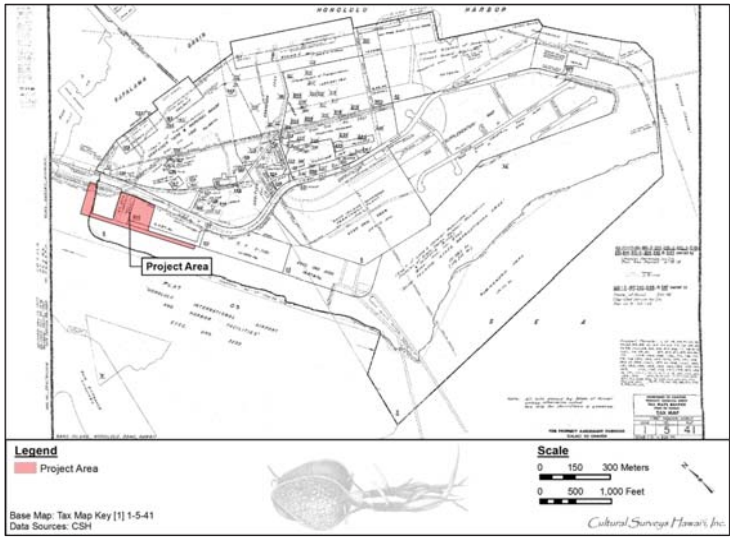

Figure 2. Tax Map Key (TMK) [1] 1-5-41 indicating the project area (Hawai‘i TMK Service 2014)



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

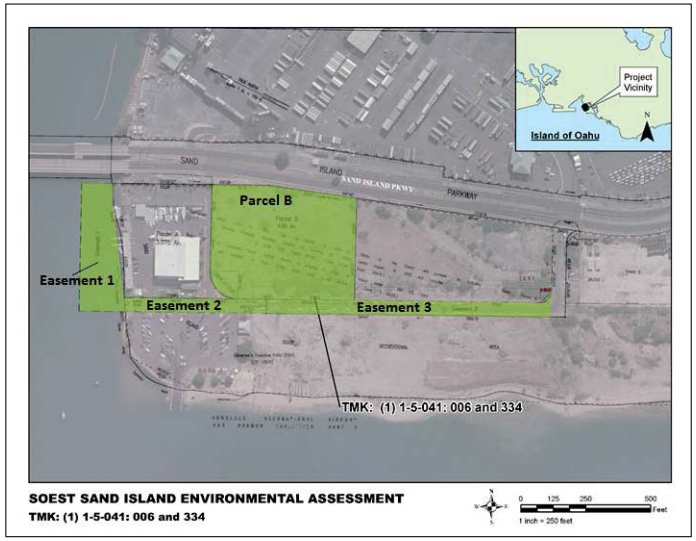

Figure 4. Project area overlay from the client indicating subdivided portions of the project area: Parcel B, and Easements 1, 2, and 3

1.2.1 Definitions of Cultural Resources and Historic Properties

As discussed in the following paragraphs, there are important distinctions between the Federal and Hawai‘i 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 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 the five Hawai‘i 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 Hawai‘i in 1978 (Gonser 2001). Five primary streams with numerous smaller tributaries flow into the marine environment immediately surrounding the project area: Kalihi, Kapālama, Waolani, Pauoa, and Nu‘uanu (Figure 5).

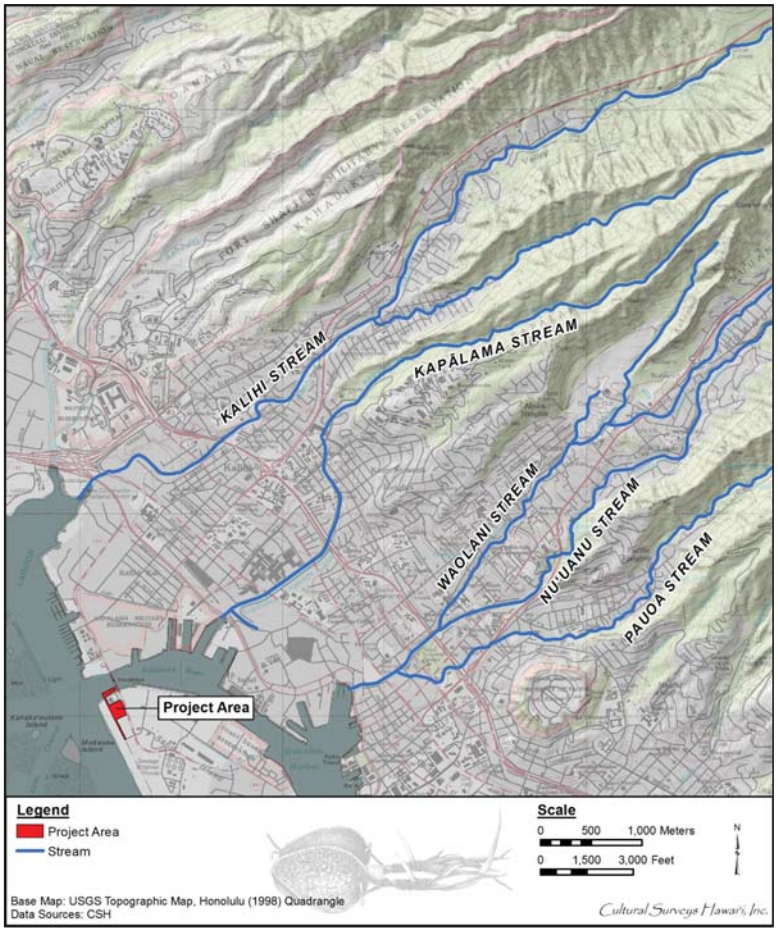

Figure 5. Portion of the 1998 Honolulu USGS 7.5 minute topographic quadrangle indicating Kalihi, Kapālama, Waolani, Pauoa and Nu‘uanu streams in relation to the project area

Mokauea Island currently represents approximately 14 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 Mokauea Fishery originally formed on a reef platform extending throughout the Ke‘ehi Lagoon. The original extent of Mokuaea 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 Mokauea Island. A natural channel from the mouth of the Kalihi and Kahauiki 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 Mokauea Island represents the western portion of the island not obliterated by historic dredging. The existing portion of Mokauea 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.

Mokauea 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 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).

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 taro 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 *kōnane* (pebble game, like checkers) and for *ulu maika* (bowling), and was said to be named for the executive officer (*ilāmuku*) of Chief Kākuhihewa 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.



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

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 *'alihi*:

> [The] 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* [double hitched knots] around the edge (*'alihi*) of the net and gourd rim. The *'alihi* 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. [Theodore Kelsey's "Navigation Gourd Notes" according to the testimony of David Malo Kupihea in Johnson and Mahelona 1975, See Appendix A]

'Alihi 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 *'ili* (land subdivision of an *ahupua'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 Malokupihea (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 Malokupihea 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 Mokuoe'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* (navigational 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'uloa (Pearl Harbor). As a literal translation, Kahaka'aulana Island could refer to "the floating swimmers pass by"; perhaps this refers to the travelers who



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

would make their way to or from Pu‘uloa by swimming through the channels of Moanalua, Kalihi, and Kapālama instead of walking or perhaps even a reference to the floating stars found within a *ipu hookele waa*, navigational gourd: “Kahakaaulana: The narrow place in the Kalihi 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.
>
> Pahouiki, Pahounui, and Apili (meaning ‘caught, snared, or stuck’) Fishpond . . . Three adjoining fishponds off Kalihi.
>
> 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 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 1933:88]

Weli Fishpond, also in Kalihi 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 Kalihi.

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‘ōlelo*

Mo‘ōlelo (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.

Kalihi, 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. Kaieie Heiau in Kalihi was built for her worship” (Landrum and Klieger 1991:10). Haumea

is the mother of Pele whose sister Kapo made Kalihi 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-Kalihi, the water door of Kalihi, and the epic journey of the gods Kane and Kanaloa, which takes them to Kalihi, is described by Westervelt:

> Kane and Kanaloa journeyed along the coast of the island Oahu until they came to Kalihi. For a long time they had been looking up the hillsides and along the water courses for *awa*. At Kalihi 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 Kalihi. [Westervelt 1915:35]

Most of the recorded myths are situated in the *mauka* areas of Kalihi and there is very little documented information for the *mākai* 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 the Kalihi Basin. A shark guardian of Moanalua, Makali‘i is known to frequent the waters of Kalihi 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, *Trachurops 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‘ula* were also emphasized during interviews with

Mokauea fishermen. A *kū‘ula* 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‘ula* 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‘ula* 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‘ula* practice existed up until the confiscation of the area in 1941 (Napoka 1976:14).

The waters of Kalihi 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 nehe 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 nui 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‘ula. This variety of *‘anae* is said to make its run from October through March along the following route beginning at Pu‘uloa: "Kumumanu, Kalihi, Kou, Kalia, Waikiki, Kaalawai and so on around to the Koolau side, ending at Laie, and then returning by the same course to their starting point" (Thrum 1998:271). There is no doubt that the fishing grounds at Kalihi 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 Kalihi 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 Kalihi 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 Kalihi 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‘ehi 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 gourds, 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).

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

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 *Hōkū-‘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 (*‘alihi*) of the net and gourd rim. The *‘alihi* 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‘uanu 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 Kalihi area was declared by Kauikeaoli (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 *limu* (edible sea weeds) gardens there ‘Kauma‘e,’ after his grandmother” (Mana 2015). Land

surrounding the fishpond in Kalihi 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‘uanu Stream, far removed from Kalihi 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 Hawai‘i written in the 1860s, John Papa ‘Ī‘ī describes the trail from Nu‘uanu 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. [‘Ī‘ī 1959:95]

In 1872 the small island off Iwilei—"Ka-moku-‘ākulikuli"—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 Hoften 1970:3). By 1888, Kamoku‘ākulikuli 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 Kalihi 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 *ahupua‘a* were living relatively close to Kalihi Stream, inland of present day Dillingham Boulevard and seaward of the confluence of Kalihi and Kamanaiki streams.

Numerous taro pond fields or *lo‘i* were claimed during the Māhele, particularly along Kalihi and Niuhelewai streams, which served as the eastern and western boundaries of Kalihi. However, on the flat of Kaluapuhi where Kalihi Kai meets the ocean, there is no indication of taro *lo‘i* or fresh water sources. Figure 13, an 1886 map of Kalihi 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, Puhene 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 Kaluapuhi land separated Loko Auiki from Loko Pahouiki. Land Commission Awards 3237, 1255, 7234, and 2038 are clustered in this area. Lands in Kalihi 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‘uhale, Kalihi 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*, Kaunuohua, received land in Kalihi during the Māhele (Waihona ‘Aina 2000). Kaunuohua was a female descendant of a high ranking *ali‘i* of Hawai‘i Island, Kalaninui‘īamamao, father of Kalani‘ōpu‘u (Kame‘eleihiwa 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‘ulena in Waikīkī, Mokauea in Kalihi, and Kalaupapa on Moloka‘i (Kame‘eleihiwa 1992:264). LCA 6450 to Kaunuohua names five *‘ili* in Kalihi being awarded to her including Kaluaopalena, Keauhou, Mahani, Niau, and Mokauea (Barrère n.d.:286).

Hewahewa, a descendant from the *Paoa* priestly class who served three of the Kamehamehas, was awarded the *‘ili* of Kaluapulu in Kalihi which included fishponds at Kalihi Kai (Kamakau 1961; LCA 3237). A second *kahuna* (priest) of the same Hewahewa line, Nahinu, was also awarded lands in Kalihi, near the outlet of the Kalihi Stream (Bushnell and Hammatt 2002: 6). Nahinu also served as *konohiki* for Kalihi 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:

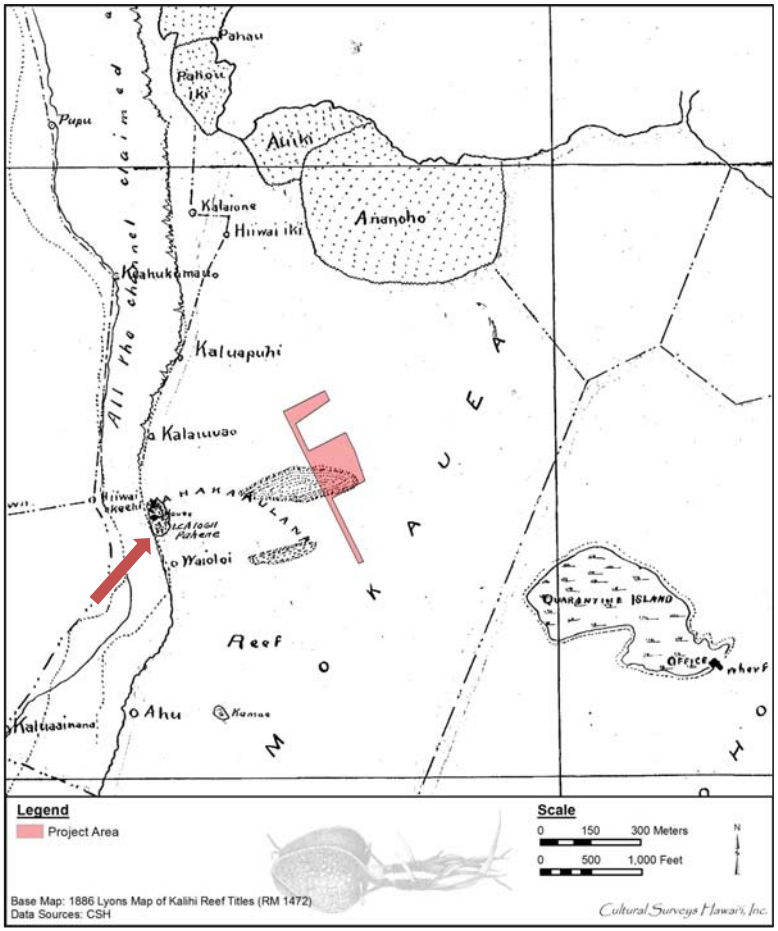

Figure 13. Portion of the 1886 Lyons map of Kalihi Reef Titles, indicating the eastern portion of Mokauea Island within the project area and LCA 10611 indicated by the red arrow

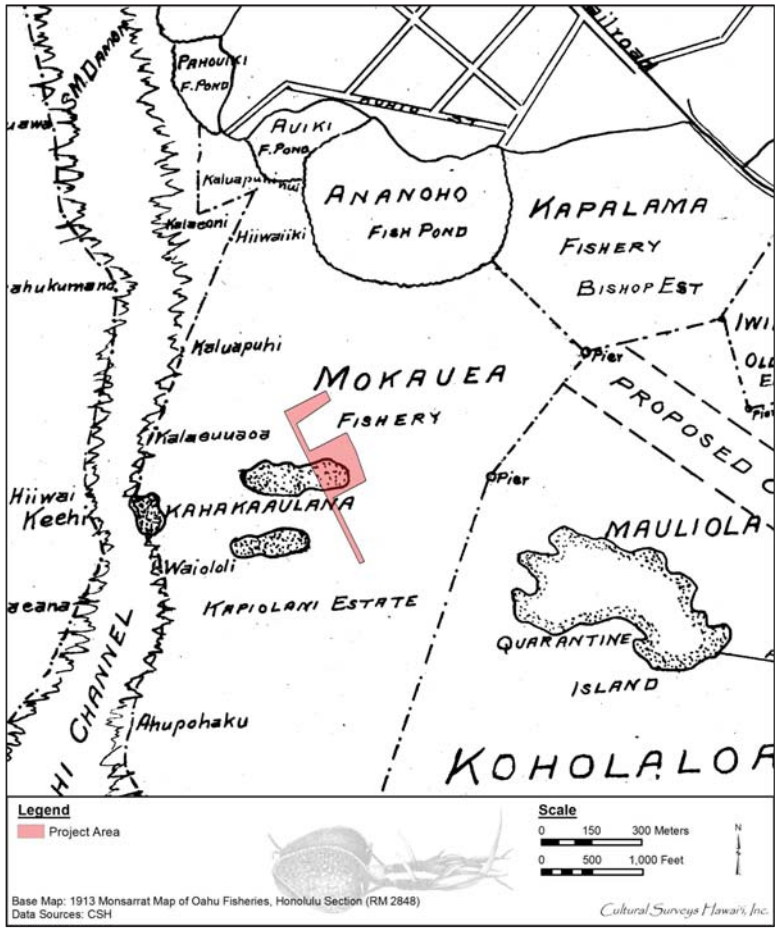

Figure 14. Portion of the 1913 Monsarrat map of O'ahu fisheries indicating the project area within a portion of the Mokauea Fishery

> 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 ‘Ī‘ī and Mr. Adams. ‘Ī‘ī 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/waterscapes from before the early 1900s remains today (see Figure 13). In addition to the landscape changes, the socio-economic changes within and around the Mokauea 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 Ke‘ehi lagoon. The village of Kou, inland of Sand Island, had a long history of settlement. Kou was an important hub in historic Hawai‘i 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 Shideler 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 Ke‘ehi 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 (Hawai‘i State Archives, Digital Collection)

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. Kaeliwai, 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 crematorium. 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 Hawai‘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.

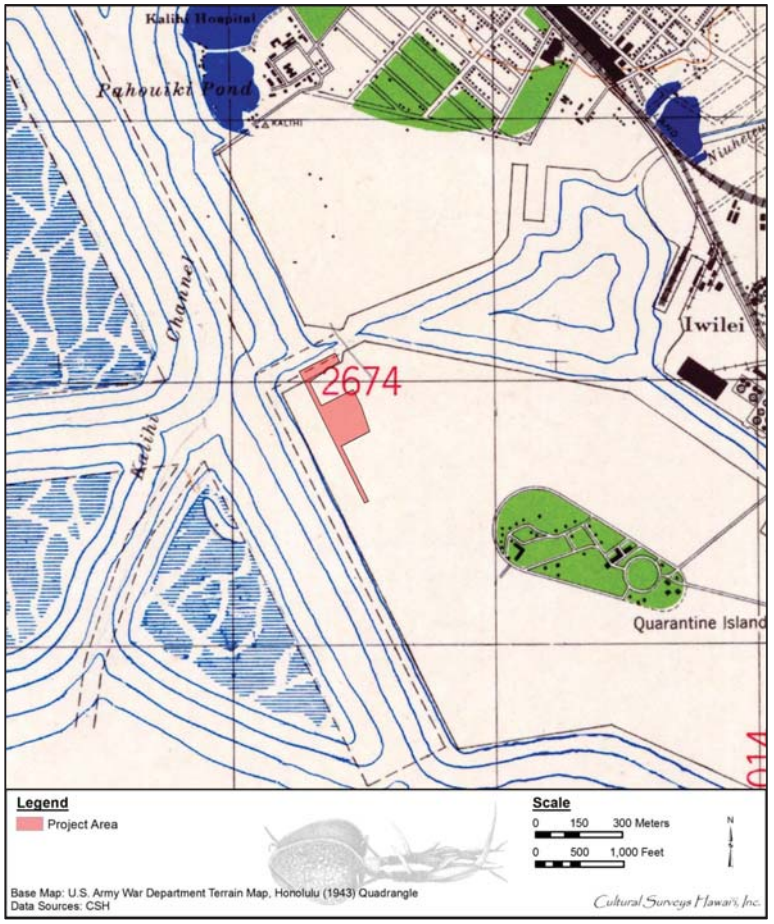

Figure 16. Portion of the 1943 U.S. Army War Department Terrain map, Honolulu Quadrangle, showing Kalihi Channel, Quarantine Island, one house on the portion of Mokauea Island not severed by the seaplane runway channel dredging and the project area to the east of the seaplane runway

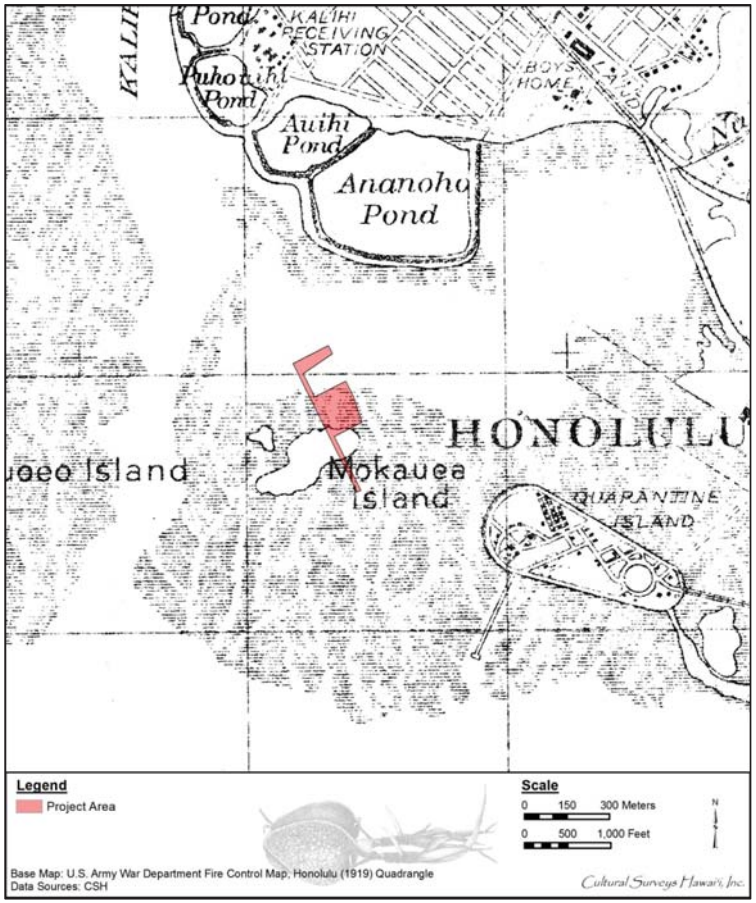

Figure 17. Portion of the 1919 U.S. Army War Department Fire Control Map, Honolulu Quadrangle, indicating fishponds, Quarantine Island, and a portion of the project area within a portion of Mokauea Island

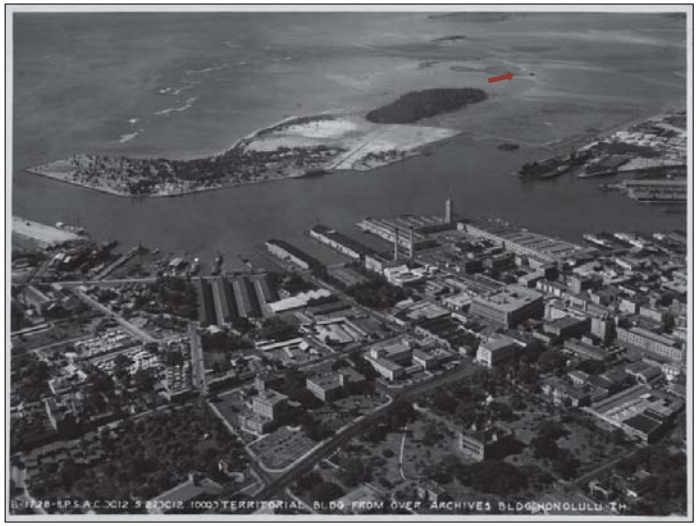

Figure 18. 1920-1930 photograph of Honolulu Harbor with a red arrow indicating the approximate location of the project area within the network of Mokauea Fishery tidal flats (Hawai'i State Archives, Digital Collection)



Figure 19. 1930 photograph of Honolulu Harbor (Hawai'i State Archives, Digital Collection)

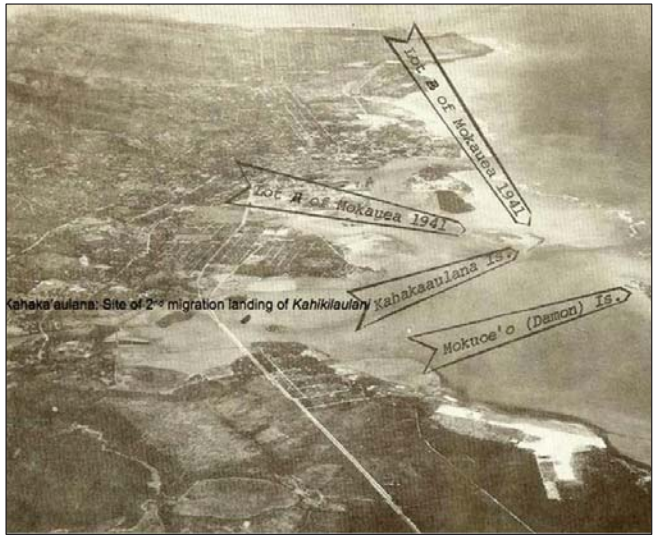

Figure 20. 1941 photograph of Honolulu and the Mokauea Fishery (Hawai'i State Archives, Digital Collection)



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 Kalihi Channel and the remaining portion of Mokauea Island approximately 500 m west across the seaplane runway channel (UH SOEST)

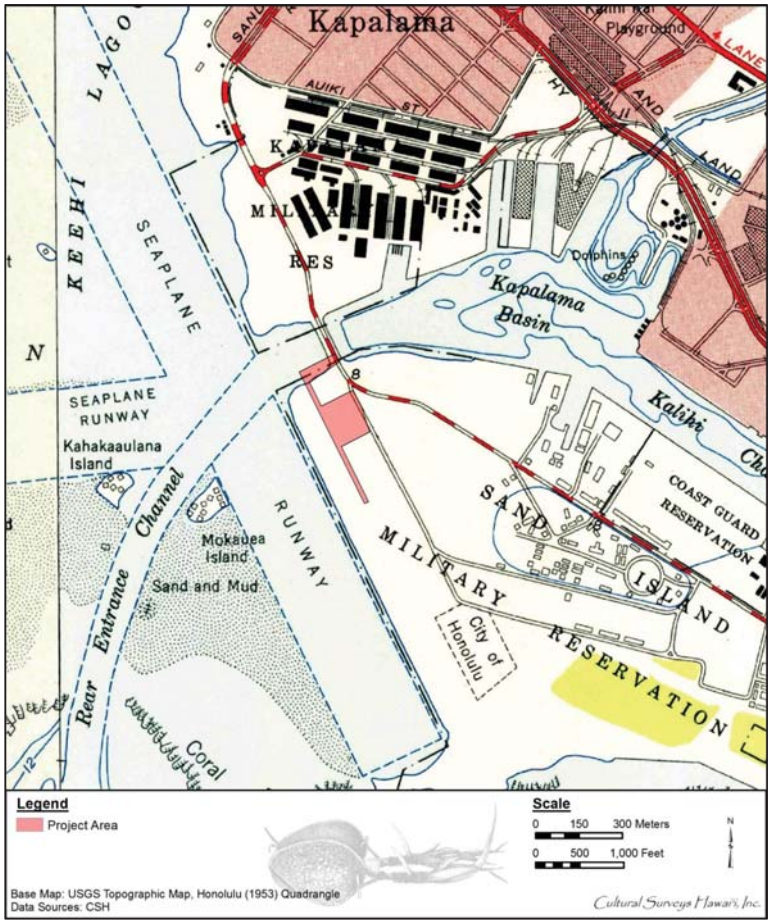

Figure 22. Portion of the 1953 Honolulu USGS topographic quadrangle showing Mokauea Island inhabited by approximately nine houses and severed on its eastern margin by the seaplane runway and the project area under the jurisdiction of the Sand Island Military Reservation

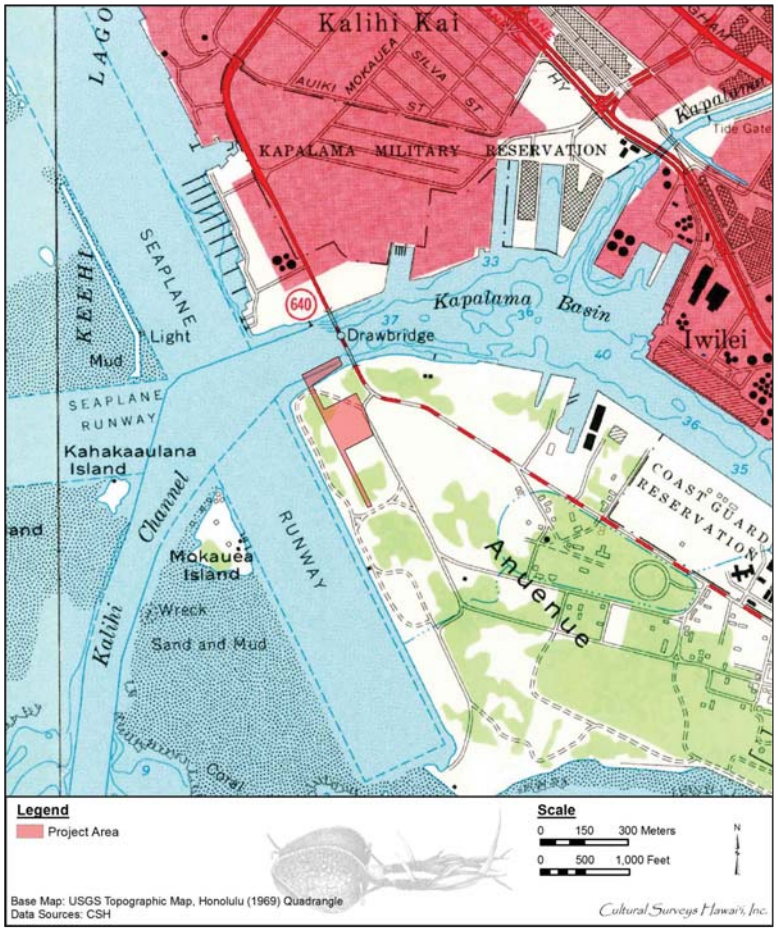

Figure 23. Portion of the 1969 Honolulu USGS topographic quadrangle indicating Kalihi Channel, Mokauea Island, and the project area



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

> The cultural landscape of Ke‘ehi was drastically altered after the bombing of Pearl Harbor . . . Under martial law, the Territory of Hawai‘i took control of the area and started dredging the lagoon to create landing channels for seaplanes. As a result, many of the *kūpuna* [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. [Kēhaulani 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 Hawai‘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‘uhale used her fishing *kū‘ula* (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 Kalihi 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 Fornander (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 Kalihi Kai lumped under two site numbers: Ananoho and Auiki fishponds (SIHP # -00073) and Pāhouiki, Pāhounui, 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 *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)
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 Keʻehi Lagoon, TMK: [1] 1-2-021:013	Six cores excavated through old fill and into area of two former fishponds, Apili, Pāhouiki and Pāhounui (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-Kapālama, (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-Kapālama: 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 burials; and 4) historic schools, 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/Nuʻuanu 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, TMKs: [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

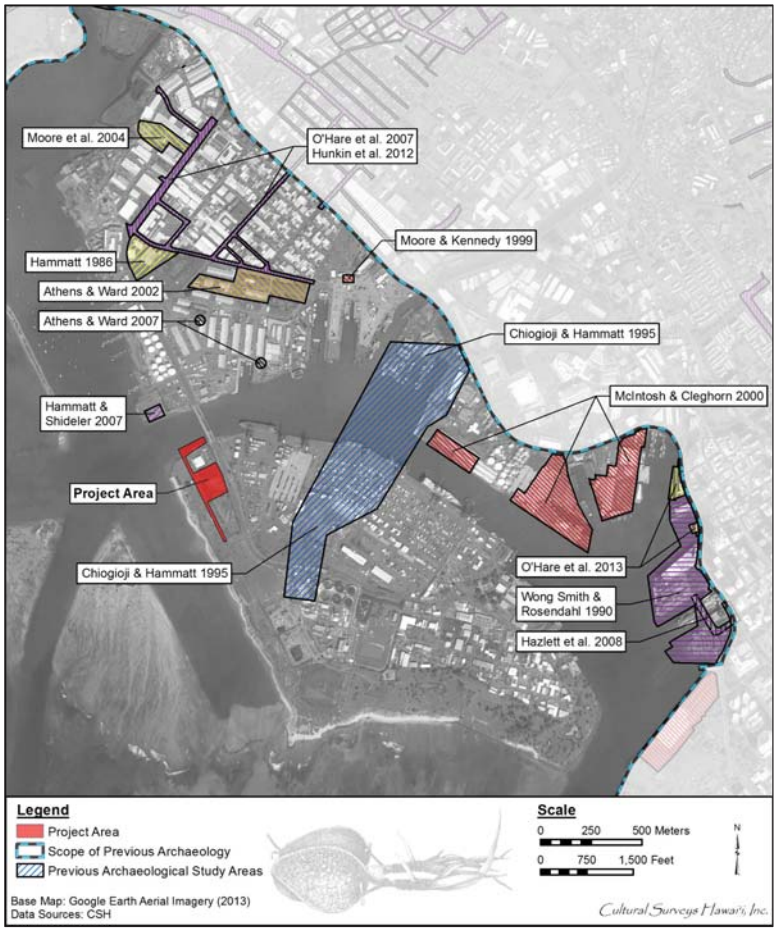

Figure 25. Previous archaeological studies within the vicinity of the project area (Google Earth 2013)

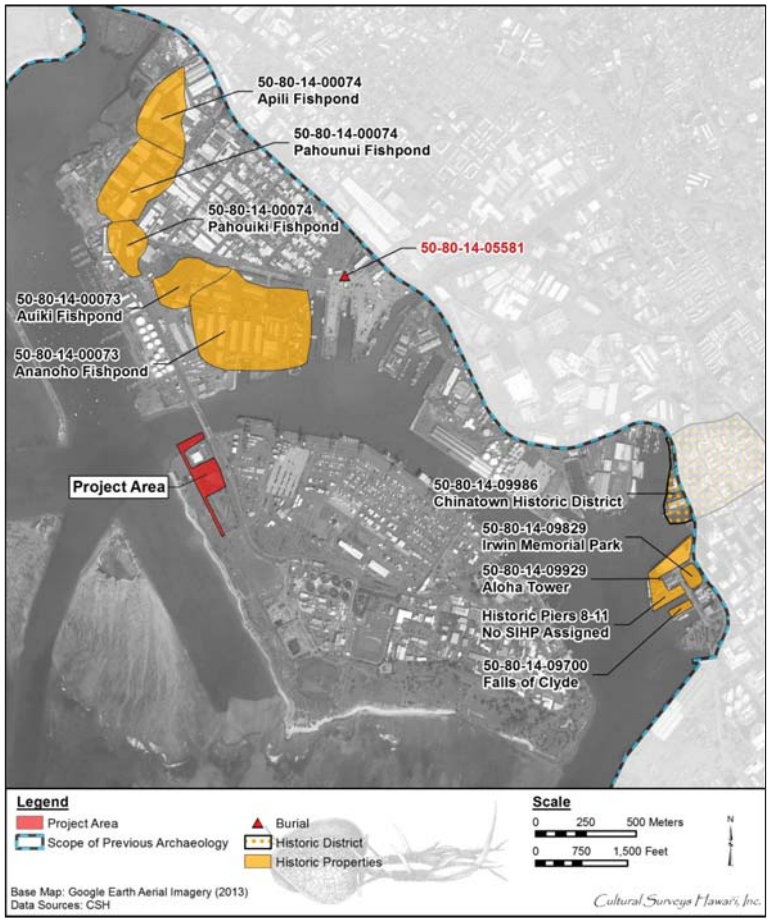

Figure 26. Previously recorded archaeological sites within the vicinity of the project area (Google Earth 2013)



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 *00*, 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 Kapālama 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 Mokauea Fishery, implies an inhabited "*ana*," 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 Kaliawa Fishery, pointed out one of the “sand mounds,” an islet in Kai o Kaliawa 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 ‘*ohana* 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 asSIHP # 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 Kalihi 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 Cleghorn. 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 Cleghorn 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 Kalihi 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 Kalihi 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:I) 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. Kapalama 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 Shideler 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 Shideler 2007:i).

Also in 2007, an archaeological investigation was conducted to assist in mitigating the impact on cultural resources during the Kalihi-Kapālama portion of the Kalihi/Nu‘uanu 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 Aloha 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 Kalihi/Nu‘uanu Sewer Rehabilitation project, Kalihi, Kapālama, Nu‘uanu, Pauoa, 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

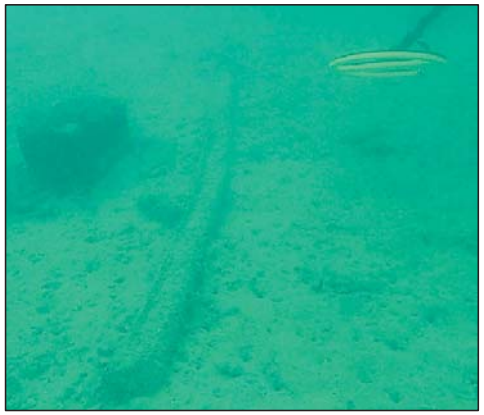

Figure 29. Pipe and rectangular concrete block observed during underwater survey of Easement 1 (archaeologist’s metal detector at upper right)

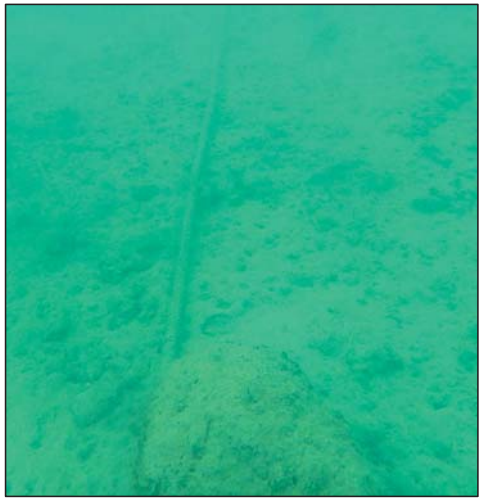

Figure 30. Pipe observed during underwater survey of Easement 1

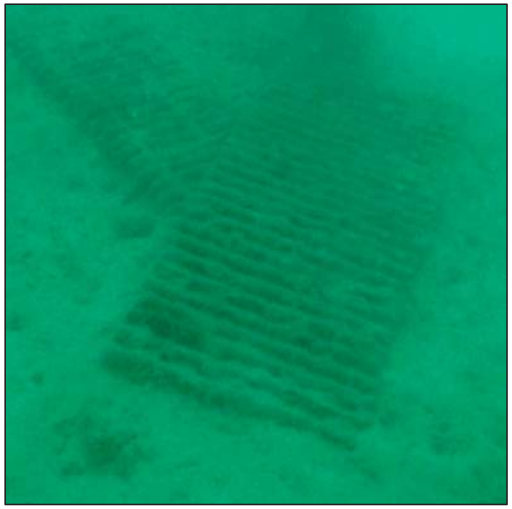

Figure 31. Steel grates observed during underwater survey of Easement 1

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 naturel sediments; all observed artifacts are historic and none of them are deemed traditional. The high organic content observed within Stratum 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

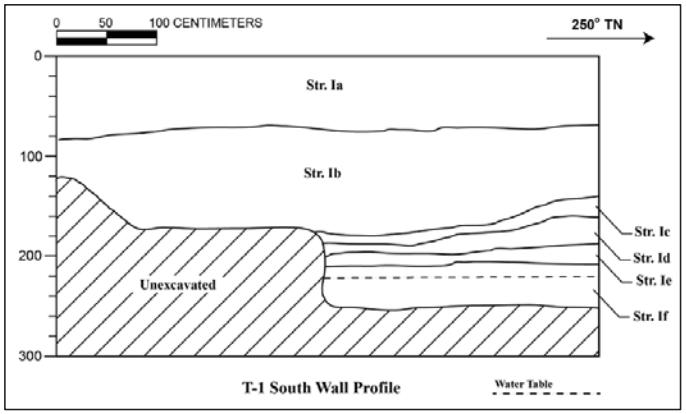

Figure 34. Profile drawing of T-1 south sidewall

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 consistence; 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 consistence; 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 consistence; 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 consistence; 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 consistence; 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 consistence; no cementation; slightly plastic; marine origin; clear, smooth lower boundary

4.2.2 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 36. T-2 oblique profile view to northeast



Figure 37. T-2 plan view to southwest

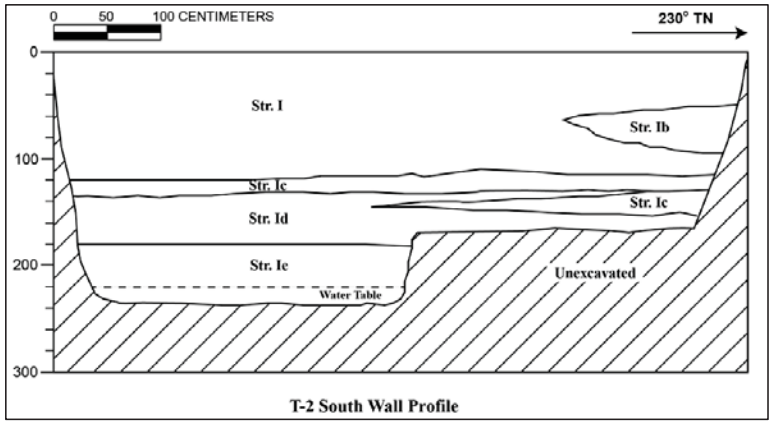

Figure 38. Profile drawing of T-2 south sidewall

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

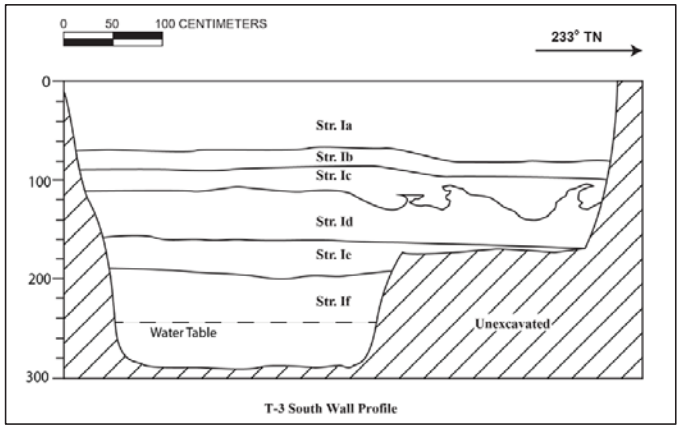

Figure 41. Profile drawing of T-3 south wall profile

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 consistence; 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 consistence; 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 consistence; 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 consistence; 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 consistence; 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 consistence; no cementation; non-plastic; marine origin; lower boundary not visible

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, loamy 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 44. T-4 plan view to south-southwest

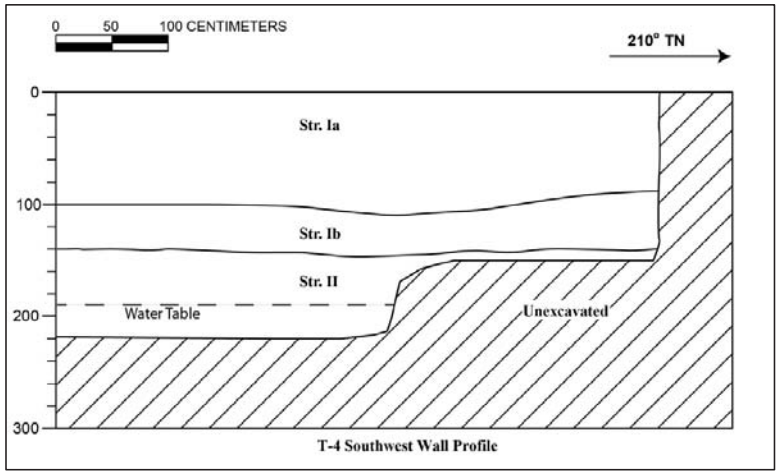

Figure 45. Profile drawing of T-4 southwest sidewall

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 consistence; 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 consistence; 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 consistence; no cementation; non-plastic; marine origin; lower boundary not visible

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 boarders 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), overlaying 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

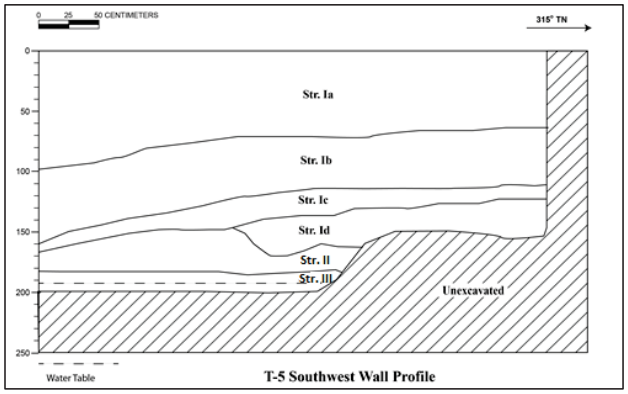

Figure 48. Profile drawing of T-5 southwest sidewall

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

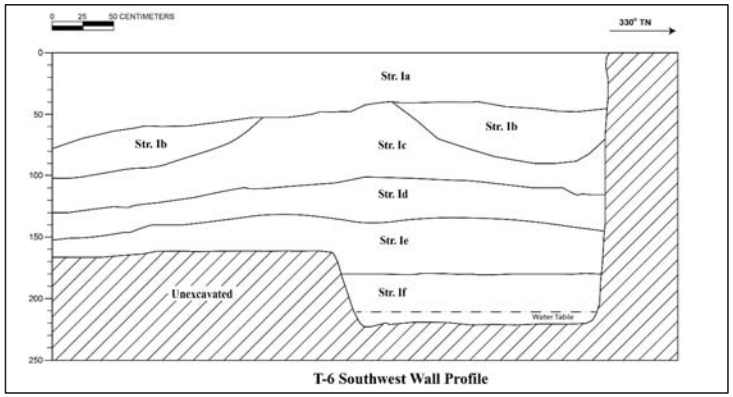

Figure 52. Profile drawing of T-6 southwest sidewall

Table 7. Stratigraphic Description of T-6

Stratum	Depth (cmbs)	Description of Sediment
Ia	0-75	Fill; 10YR 3/3, dark brown; sandy loam; moderate, coarse, granular structure; moist, friable consistence; 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 consistence; 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 consistence; 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 consistence; 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 consistence; 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 consistence; 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) overlaying 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 54. T-7 northeast sidewall profile close-up at the base of excavation, view to east to the BOE

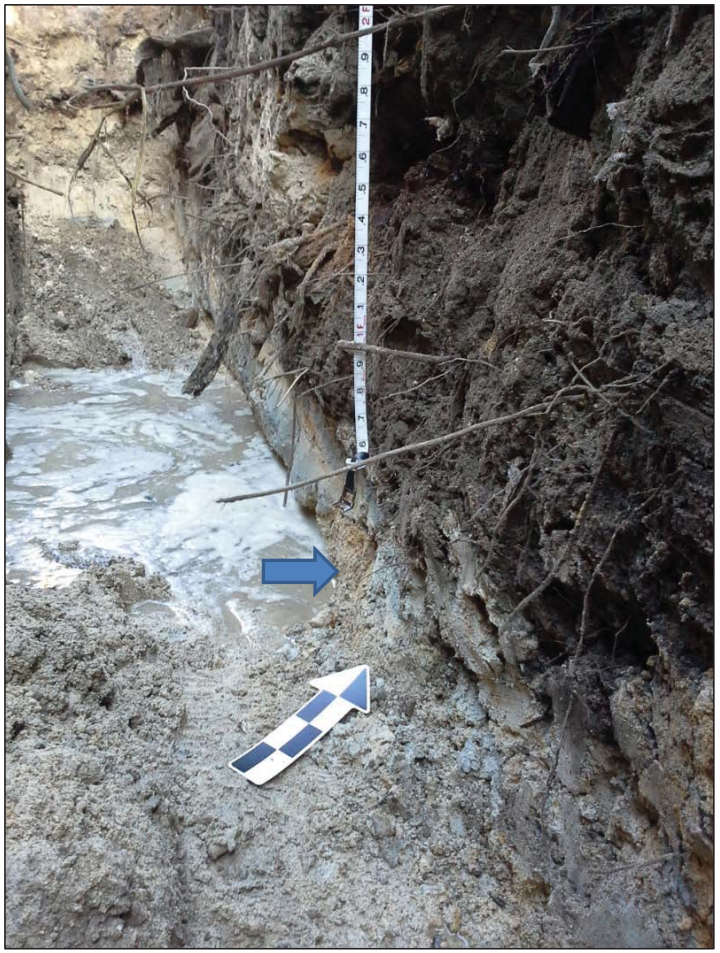

Figure 55. T-7 northeast sidewall profile at the base of excavation, view to north with blue arrow indicating small protuberance of natural sediments in Stratum II at the BOE



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

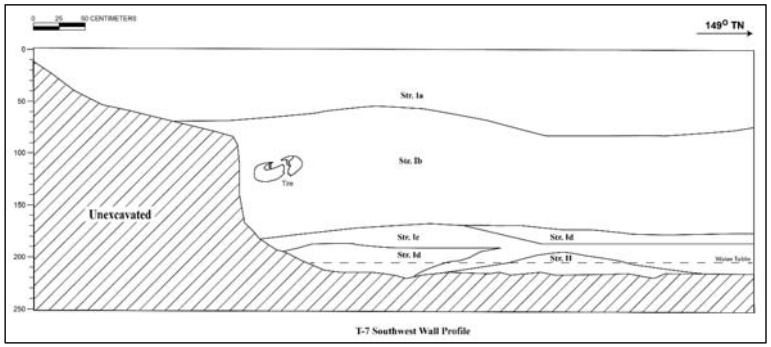

Figure 57. Profile drawing of T-7 northeast sidewall

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 consistence; 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 consistence; 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 consistence; 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 consistence; no cementation; slightly plastic; marine origin; lower boundary not visible
II	210–240 (BOE)	Natural; 2.5Y 8/4, pale yellow; sand; weak, course, granular structure; moist, loose consistence; no cementation; slightly plastic; marine origin; lower boundary not visible

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) overlaying 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

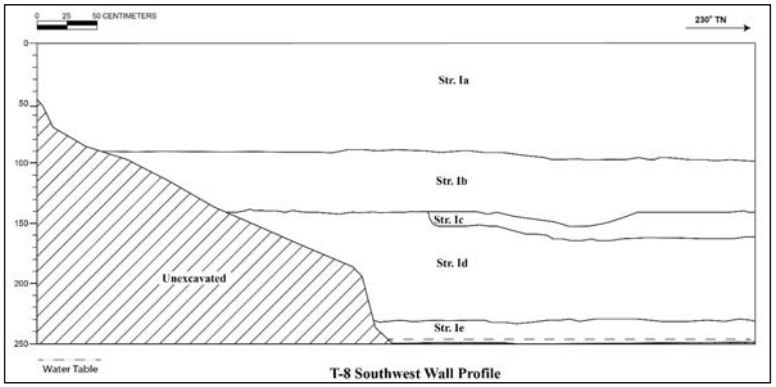

Figure 60. Profile view of T-8 southwest sidewall

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 consistence; 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 consistence; 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 consistence; 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 consistence; 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 consistence; 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

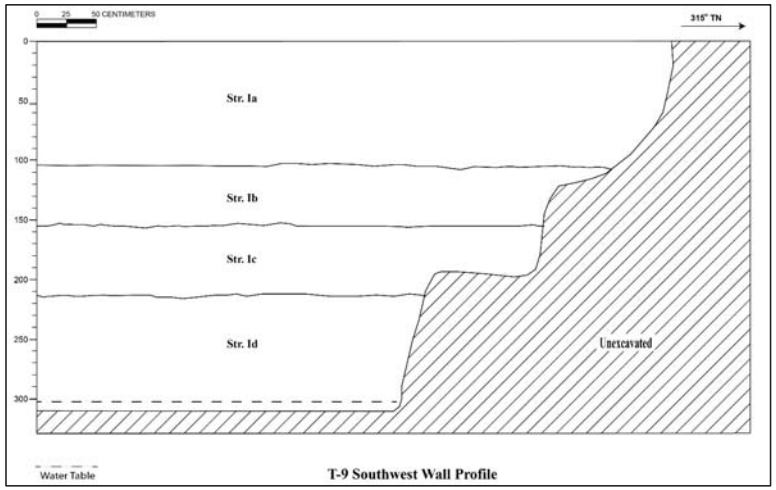

Figure 63. Profile drawing of T-9 southwest wall profile

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

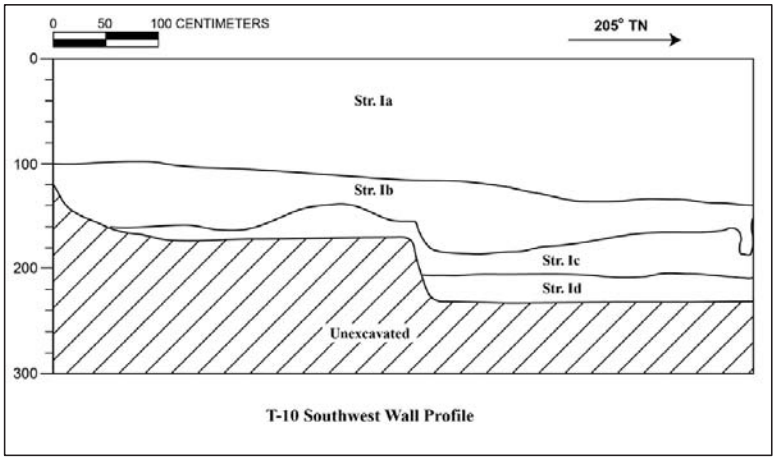

Figure 66. Profile drawing of T-10 southwest sidewall

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



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

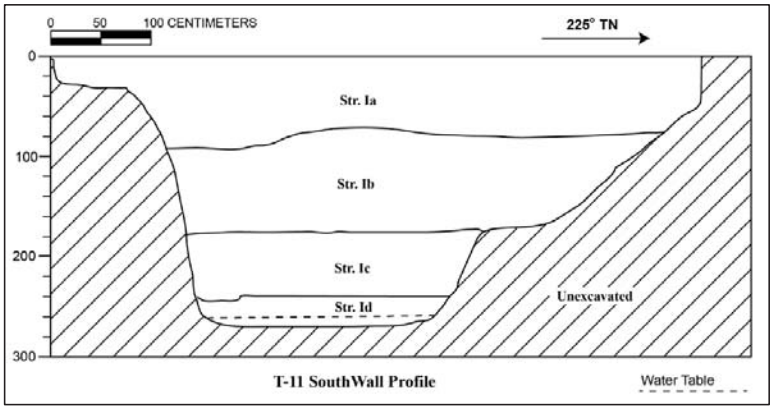

Figure 70. Profile drawing of T-11 south sidewall

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 consistence; 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 consistence; 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 consistence; 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 consistence; 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 “G” 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–Ib (0-200 cmbs) in T-7, dorsal view



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



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



Figure 78. Acc. # 4, clay brick recovered from Stratum Ia (0-105 cmbs) 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

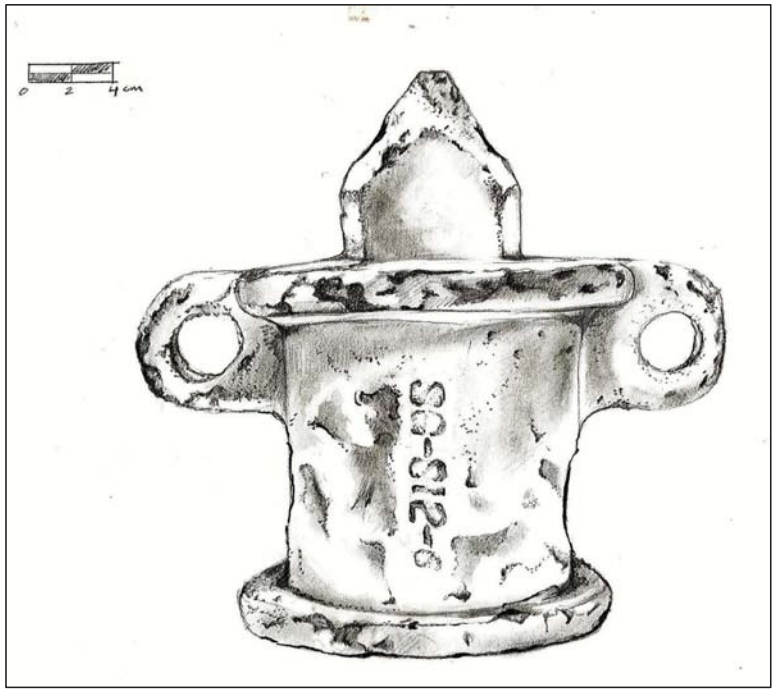

Figure 83. Acc. # 6, from Stratum Ia (0-90 cmbs) in T-8, illustrated side view, noting inscription (illustration by Megan Hawkins)

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 14-04, 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 relict 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 relict 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 artifacs 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 Mokuaea Island and the Mokuaea 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.

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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 Kalihi-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 Kalaniopuu and Kamehameha I. Holowai's father was Hiapo, *konohiki nui* under King Ka1aniopuu. He was the chief who stripped the bones of Captain Cook. The father of Hiapo was Ka1eikini (*inoa kapakapa*) who was also known by the name Ahukini, as a demigod.
>
> Ka-haka ' au1ana, or "Sand Island", in Kalihi 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 kola 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 *aku*, attracting some back to Kona, Hawai‘i, and Kona, O‘ahu, perhaps by a *Ku-u1a*, or stone fish-god. *Oahi* was a stone used to attract *'opelu*. Thus fish were brought to the *kola* 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 *pola*, or raised platform of light poles bound together-*iliihi* 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 slacked, 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 (*poli*) 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-'ea, 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 Holoa'e, 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-'ea was the keeper of Ka-haka-'aulana or Sand Island fishery, including the *limu* gardens of Ka-ma'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 *luau*. Wai-'ea 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, *koa*, 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 *mākai* side of Allen, who was the owner of the old Royal Honolulu Hotel on Alakea Street and part-owner of Waimanalo plantation. House of Kauikeaouli (Kamehameha III) was given to Puhene by Kamehameha III because she took care of it. She had her other house *mākai* 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-nihi] between Nuuanu and Kalihi. He was chief of the *menehune*s who lived in Waolani, Nuuanu, and Kalihiuka. Mostly *menehunes* then, but were old chiefs down on the flats who were not *menehunes*. Some *menehunes* lived at Nana-kuli, around Pu‘u-oKapo-lei, Waialua, Wahiawa, 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 others, but not fitted with net. Think about 7, five at Kahaka, and two from 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 *koi ‘ula*). Think *ko ‘i ‘ula, not ko‘i ‘ula, Ko i Kaha‘i, ko ke au, ko ia Kaha‘i . Kupihea . Kaha‘i Mele. Malo. He Kaha'i*...All the meshes of the net supported by the *alihi* are *na maka ‘alihi*. Think apply to latitude and longitude. *Na maka O ‘alihi*. Rounding of calabash makes lines of *koko* like bending rainbow. All you do is follow… All *koko* is supported by *‘alihi -- paa* -- an all meshes held in place… Around the *‘alihi* 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 kukui* 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 *‘alihi*, 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, the edge of which was perhaps about 3 inches below rim, had loops from the *lihilihi*, called *anuenue*, 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:

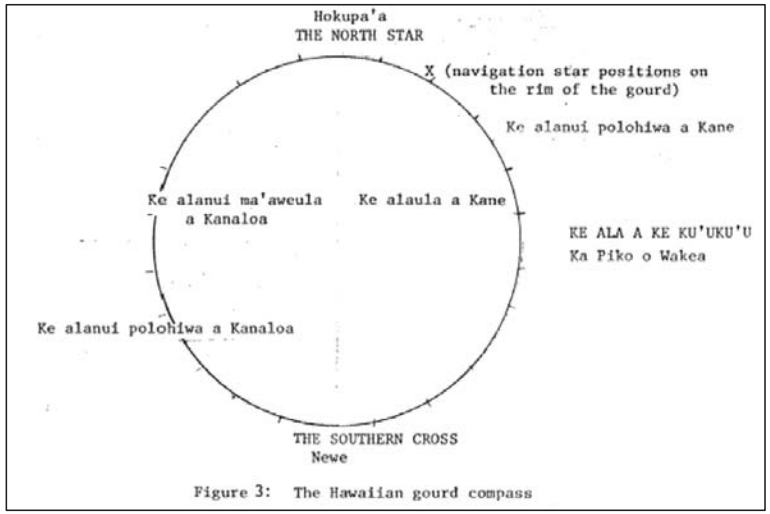
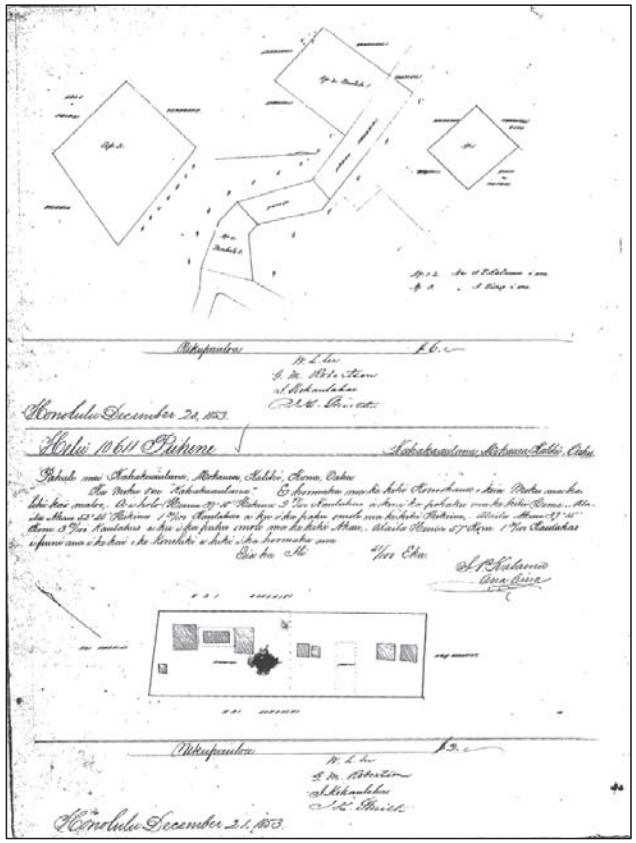


Figure 84. Kamakau’s illustrated guide to the Hawaiian navigational gourd (Johnson and Mahelona 1975:71, Figure 4)

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: Kaluapulu

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 makuas. 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 makuas 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 Commission: 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 Kaunuohua's, Makai by Wm. Beckley, Ewa by John Ii's., 2. Nine kalo patches:, Mauka by Kuhaukonia's, Honolulu by Palama's, Makai by Kahalekai's, Ewa by Kaunuohua's., Claimant had these land from Paki in time of Kamehameha I and has ever since held them without dispute. Aki is konohiki. Nuhi, 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 Kaunuohua'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 Kaunuohua's land, Ewa. Waialua received his land from his parents during the time of Poki, but Aki was the konohiki at the time." Nuhi, 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: Kalihi waena, Ili: Kukahi, Apana: 1 Awarded: 1, Loi: 4 FR:, Plus: NR: 304v5, Mala Taro: FT:, Kula: NT: 51v10

House lot: 1 RP: 3294, Kihapai/Pakanu: 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: Pigpen: 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/KouTrees: 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 Kalihi 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.

LEONUI X, his mark, February 8, 1848

LCA Claim Number: 02038, Claimant: Kalama, Hakaleleponi, Apana: 1 Awarded: 1, Loi: FR:, Plus: NR: 333v3, Mala Taro: FT: 248v3, Kula: NT: 583v3, House lot: 1 RP: 7537, Kihapai/Pakanu: 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: Pigpen: 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 Kalihi, 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, Kalihi, Oahu. It has to [two] houses on it. It is bounded: Mauka by Kaunuohua's land, Honolulu and Makai sides by the same, Ewa by John Ii'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 Kalihi, surrounded by a stone wall. Mauka, Kaunuohua's land, Honolulu, the sea for Kaunuohua, Makai, Kaunuohua, Ewa, John Ii. 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 Kalihi Kona; 1 ap.; .19 Ac.]

LCA Claim Number: 06450: Claimant: Kaunuohua, Other claimant: Moehonua, W.L., Island: Oahu, District: Kona, Ahupuaa: Kalihi, Manoa, Waikiki, Ili: Mokauea, Puulena, Kalia, Kiokapu Apana: 11 Awarded: 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/Pakanu: 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, Kaunuohua, N.R. 372v5

Greetings to the Land Commissioners, William L. Lee, J.H. Smith, Z. Kaauwai and J. Ii and N. Namauu: I hereby state my claims for land from the Mo'i to be mine forever They are as follows: Pulena 'Ili of Waikiki, Kona, Oahu, Mokauea /'Ili/, Ahupua`a of Kalihi, 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, Kaunuohua, 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 Kalihi, Kona, Oahu, Kalaupapa Ahupuaa, Koolau, Molokai

I endorse this grant, it is good. These lands mentioned above are for Kaunuohua and are approved, so they may be presented to the land officers who quiet land titles. /Signature/ KamehamehaRoyal Palace, February 4, 1848. This is a true copy from the Mahele book. W. Goodale, Secretary. [Award 6450; Royal Patent 8120; Mokauea Kalihi Kona; Por. Ap. 1; 1 ap.; .78 Ac.; Royal Patent 8121; Mokauea Kalihi Kona; Por. Ap. 1; 1 ap.; .84 Ac.; Royal Patent 8122; Mokauea Kalihi Kona; Por. Ap. 1. 1 ap.; .88; Land Patent 8147; Mokauea Kalihi Kona; Por. Ap. 1. 1 ap.; 66 Acs; Land Patent 8153; Mokauea Kalihi Kona; Por. Ap. 1; 1 ap.; 1.12 Acs; Land Patent 8170; Mokauea Kalihi Kona; Por. Ap. 1; 2 ap.; .28 Acs; Land Patent 8194; Mokauea Kalihi Kona; Por. Ap. 1; 1 ap.; 219.2 Acs; Land Patent 8298; Mokauea Kalihi Kona; Por. Ap. 1; 1 ap.; 3.62 Acs; Land Patent 8327; Mokauea Kalihi Kona; Por. Ap. 1; 1 ap.; 2.23 Acs; R.P. 2509; Mokauea Kalihi Kona; Ap. 2; 1 ap.; 216 Acs; R.P. 6846; Mokauea Kalihi Kona; ap. 3; 1 ap.; 21.81 Acs; R.P. 7168; Mokauea Kalihi Kona; Ap. 6; 1 ap.; 110 Acs; Land Patent 8466; Kalihi Kona;

Kaunuohua for W.L. Moehonua (ap. 8); Land Patent 8307; Mokauea Kalihi Kona, 1 ap.; 58 Acres 6 chains; Ap. 9; 1 ap.; 95.36 Acs; Kaunuohua for Moehonua; R.P. 7263; Puulena Manoa Kona Ap. 2; ; 1 ap.; 35.4 Acs; Land Patent 8349; Kuwili Ponds, Kalia Waikiki, Ap. 1; 1 ap.; 3.62 Acs; no R.P. Kalia Waikiki Kona; 1 ap.; 13.7 Acs; Land Patent 8442; Kalihi Kona; for W.L. Moehonua (ap. 4); Land Patent 8477; Mokauea Kalihi Kona; Kaunuohua for Moehonua (ap. 1); Land Patent 8491; Mokauea Kalihi Kona; Kaunuohua 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 *kūpuna* did certain things, why the prayed before they did everything and anything…and why we never took ownership. They never took ownership…you know the *kuleana*, back in the Māhele, Kono‘ohua owned the *‘ili* of Mokouea, which is actually in my geneology…Right now we are sitting in the Mokauea *‘ili* of Kalihi and Kapalama…so Mokaua is an *‘ili* inside of Kalihi 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 Loihi 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 *kūpuna* 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 ever 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 [*māuiki‘iki‘i o ke kauwela*]. The winter solstice.

> This is an aerial view of what’s left of Mokauea and in the fringing reef…this fishpond, UH dug it in…1981. It was just a little *keiki* poond, and then UH came and decided to expand it…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 Kalihi *ahupua‘a* and this is Kapalama. Mokauea in the LCA, in the land claim awards in the Māhele …it’s in Kalihi Ahupua’a, but when you look at some maps, it’s actually in Kapalama Ahupua’a, but Kapalama and Kalihi, they kind of merge together, so every time we talk about Kalihi we talk about Kapalama. They are basically together, as one…
>
> So Kalihi 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 Mailikukahi moved everything to town, from Wahiawa,…most of the stuff was going on downtown, and so Kalihi was like the edge of where it started to become country. But then the edge, Kalihi, 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 Lanihuli, 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 Kamano 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 geneology 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 Kamano 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 Mokouea and Kahaka‘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 *kūpuna* …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 *heiau*. This is the thing that’s kind of left out in the archaeology; it’s not the stones that make the *heiau* …what’s more important is the place. Where the sun is going to rise in the *heiau*, 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 Hālo 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‘aulana. 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 Grandma. It’s in Nauhuinoko‘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 this. Because in archaeology you aren’t going to find this some 100 years later. It’s 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 *ipuho‘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 Hawai‘i, its *Hōkūle‘a*, 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.

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:
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ETC Project No. 14-1026

February 2015

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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., 1983).

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 "Ghyben-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 Kalihi 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 (Kalihi 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.wsws.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 Aotani & 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	210	*ND*	350	96.9	73.2
Mercury	*ND*	0.12	0.12	*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
Dibenzeno(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. Speciffically, 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 Delisted 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 UST 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 indentify 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

RAATS – 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 – Sleam-Electric Plan Operation Data

PRP - Potentially Responsible Parties

Manufactured Gas Plants – EDR Propriety Manufactured Gas Plants

EDR US Hist Auto Stat – EDR Exclusive Historic Gas Stations

EDR US Hist Cleaners – EDR Exclusive Historic Dry Cleaners

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

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 Keehi 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 indicated 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 bitimuls 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:

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February 2015

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February 2015

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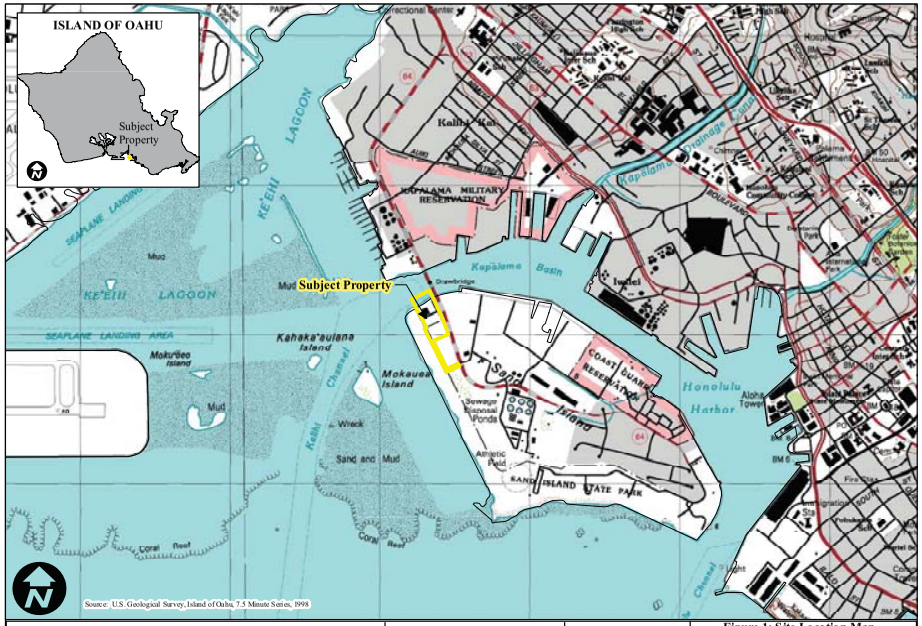
APPENDIX I
FIGURES



0 49,000 98,000 196,000 294,000 392,000 Feet

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ETC Job. 14-1026

March 2015

Figure 1: Site Location Map
Phase I Environmental Site Assessment
10 Sand Island Access Road
Honolulu, Oahu, Hawaii
TMK (1) 1-5-041: Parcels 006, 334, 130



0 49,000 98,000 196,000 294,000 392,000 Feet

Absolute Scale 1:5,000

ETC Job. 14-1026

March 2015

Figure 2: Site Map
Phase I Environmental Site Assessment
10 Sand Island Access Road
Honolulu, Oahu, Hawaii
TMK (1) 1-5-041: Parcels 006, 334, 130

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.



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.



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.

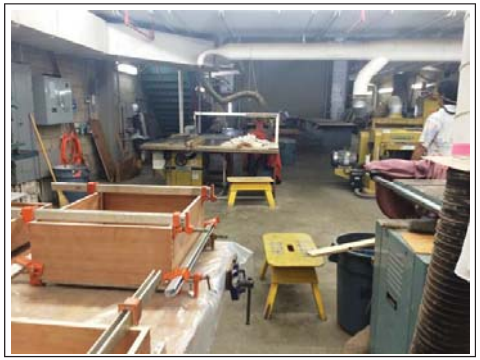




Photograph 15: SOEST / METC boat and material storage area.



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.



Photograph 22: Oil water separator and underground storage tank.



Photograph 23: Floor drains in the maintenance shop that lead to the oil water separator.



Photograph 24: Storm drain at entrance to the SOEST / METC facility.



Photograph 25: HECO transformer that appeared to be in good condition.



Photograph 26: SOEST / METC air conditioning unit.



Photograph 27: SOEST / METC propane tank.



Photograph 28: SOEST / METC eastern parking lot.

Photograph 29: Boat launch park parking lot on western adjacent property.





Photograph 30: Bathroom facilities for boat launch park on western adjacent property.



Photograph 31: Sandbox BMX facility on southwestern adjacent property.

Photograph 32: Sandbox BMX facility on southwestern adjacent property.





Photograph 33: Sandbox BMX facility on southwestern adjacent property.

APPENDIX III
RESEARCH DOCUMENTATION

SOEST Facility
Sand Island Access Road
Honolulu, HI 96819

Inquiry Number: 4138072.3
November 18, 2014

Certified Sanborn® Map Report

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

11/18/14

Site Name:
SOEST Facility
Sand Island Access Road
Honolulu, HI 96819

Client Name:
Enviro Srvcs. and Trng. 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 Srvcs. and Trng. 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.

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

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.

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 1866™

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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

EDR Aerial Photo Decade Package

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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

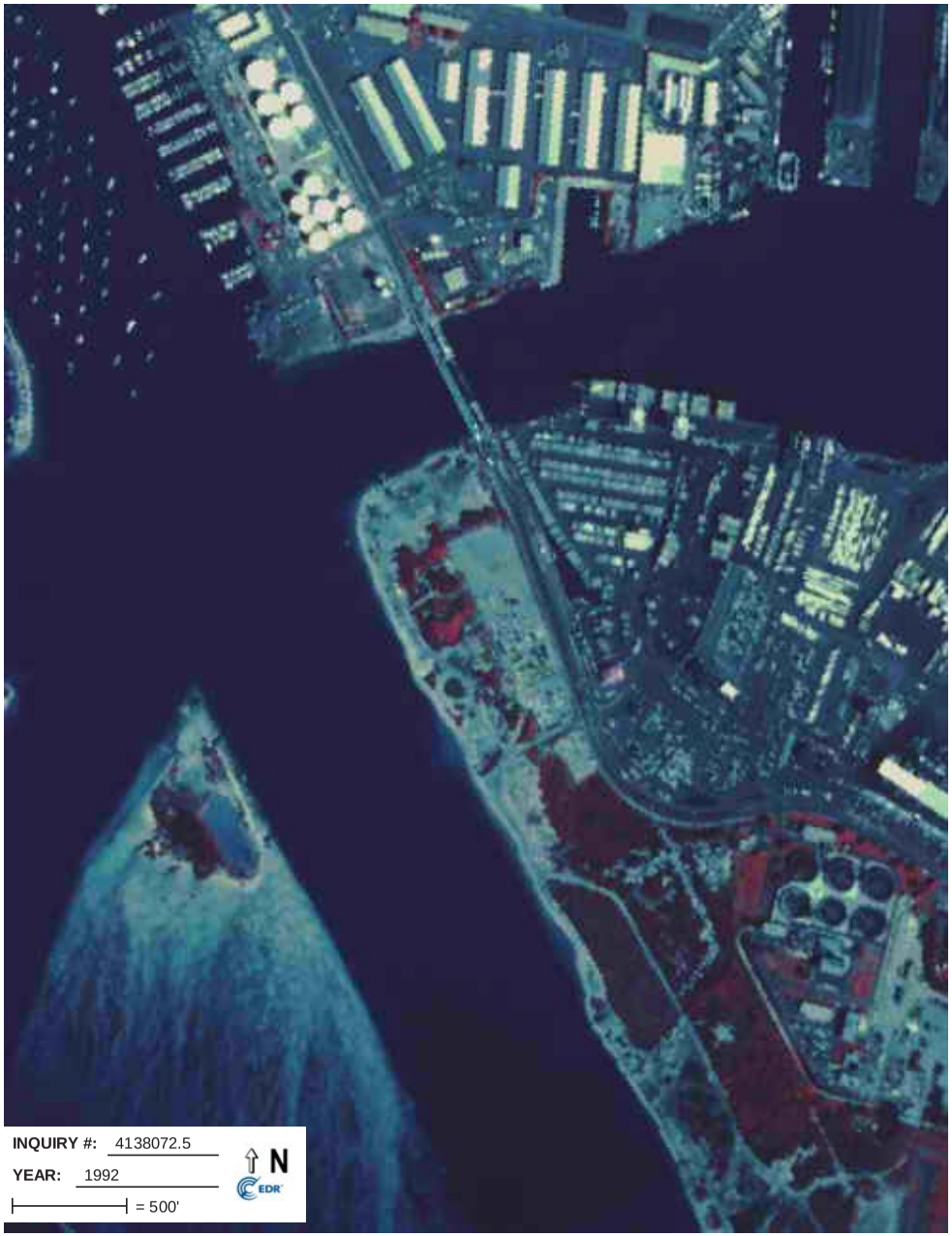

INQUIRY #: 4138072.5
YEAR: 1952
= 750'
N


INQUIRY #: 4138072.5
YEAR: 1968
= 500'
N


INQUIRY #: 4138072.5
YEAR: 1976
= 500'
N
EDR


INQUIRY #: 4138072.5
YEAR: 1978
= 500'
N
EDR


INQUIRY #: 4138072.5
YEAR: 1985
= 500'
N


INQUIRY #: 4138072.5
YEAR: 1992
= 500'
N


INQUIRY #: 4138072.5
YEAR: 2000
= 500'
N
EDR


INQUIRY #: 4138072.5
YEAR: 2004
= 500'
N
EDR

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 HUMBER, ETC.) FOR THE FOLLOWING INDIVIDUALS IF AVAILABLE.

   SUBJECT PROPERTY MANAGER:
   Derek Inafuku, 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.

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 THREATENED 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 CONERNS 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@gotoetc.com*

APPENDIX IV
REGULATORY RECORDS DOCUMENTATION *(EDR Radius Map Report)*

SOEST Facility
Sand Island Access Road
Honolulu, HI 96819

Inquiry Number: 4138072.2s
November 19, 2014

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

FORM-LBD-KKT

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

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report 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):	21.3118000 - 21° 18' 42.48"
Longitude (West):	157.8876000 - 157° 53' 15.36''
Universal Tranverse Mercator:	Zone 4
UTM X (Meters):	615375.8
UTM Y (Meters):	2356924.2
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-LQG ..... RCRA - Large Quantity Generators

Federal institutional controls / engineering controls registries

US ENG CONTROLS ..... 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 LUST ..... 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

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

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

HMIRS - 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 Decrees
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
FTTS - 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

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

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 0 - 1/8 (0.087 mi.)*	*A7*	*16*
USCG I S C HONOLULU	4 SAND ISLAND ACCESS RO	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 WWTP	*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 (PMID 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 ACCES*	*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 (0.489 mi.)*	*D25*	*60*
VEHICLE PROCESSING CENTER	*2101 AUIKI ST*	*N 1/2 - 1 (0.516 mi.)*	*E26*	*61*
2135 AUIKI ST	2135 AUIKI ST	NNW 1/2 - 1 (0.531 mi.)	E27	63
MCKESSON WINE & SPIRITS CO.	*80 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 (0.578 mi.)*	*F29*	*66*
TRANS HAWAIIAN - OAHU, INC.	*124 PUUHALE RD*	*N 1/2 - 1 (0.605 mi.)*	*G30*	*68*
1122 MAKEPONO STREET	1122 MAKEPONO STREET	ESE 1/2 - 1 (0.610 mi.)	31	69
STATE POULTRY PROCESSORS FACIL	*2132 KALIAWA 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	158 SAND ISLAND ACCESS	NNW 1/2 - 1 (0.643 mi.)	H34	73
180 SAND ISLAND ACCESS RD	180 SAND ISLAND ACCESS	N 1/2 - 1 (0.686 mi.)	35	74
AIR ENGINEERING	*2308 PAHOUNUI DR*	*NNW 1/2 - 1 (0.721 mi.)*	*36*	*75*

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 PAHOUNUI DRIVE	2250 PAHOUNUI DR	NNW 1/2 - 1 (0.774 mi.)	K39	80
1305 HART STREET	*1305 HART ST*	*NE 1/2 - 1 (0.787 mi.)*	*I40*	*81*
PACIFIC POULTRY	*1804 KANAKANUI ST*	*NNE 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 BITUMULS & PAVING	*248 SAND ISLAND ACCESS*	*N 1/2 - 1 (0.804 mi.)*	*44*	*87*
CHEVRON KAPALAMA TERMINAL	*1105 N NIMITZ HWY*	*ENE 1/2 - 1 (0.807 mi.)*	*L45*	*89*
HART STREET WWPS	*1031 N NIMITZ HWY*	*ENE 1/2 - 1 (0.809 mi.)*	*M46*	*93*
HAWAII STEVEDORES	*965 N NIMITZ HWY*	*ENE 1/2 - 1 (0.812 mi.)*	*N47*	*94*
GTE HAWAIIAN TEL - CONTAMINATE	*ALAKAWA ST & NIMITZ HWY*	*ENE 1/2 - 1 (0.813 mi.)*	*M48*	*96*
MCCABE, HAMILTON, & RENNY COMP	*1130 N NIMITZ HWY*	*NE 1/2 - 1 (0.814 mi.)*	*L49*	*97*
CHEVRON HONOLULU TRANSPORTATIO	*933 N NIMITZ HWY*	*ENE 1/2 - 1 (0.816 mi.)*	*N50*	*99*
861-869 NORTH NIMITZ HIGHWAY	*861-869 N NIMITZ HWY*	*ENE 1/2 - 1 (0.822 mi.)*	*O51*	*100*
HAWAIIAN ELECTRIC COMPANY (HEC	*855 N NIMITZ HWY*	*ENE 1/2 - 1 (0.823 mi.)*	*O52*	*101*
WEYERHAEUSER	*900 N NIMITZ HWY*	*ENE 1/2 - 1 (0.832 mi.)*	*O53*	*103*
218 MOHONUA PLACE	218 MOHONUA PL	N 1/2 - 1 (0.832 mi.)	K54	104
CHEVRON HONOLULU TERMINAL MARI	*777 N NIMITZ HWY*	*E 1/2 - 1 (0.841 mi.)*	*55*	*105*
SAND ISLAND BUSINESS ASSOCIATI	1020 ULUPONO ST	ESE 1/2 - 1 (0.842 mi.)	56	108
PAULEY PETROLEUM	*795 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.)*	*Q60*	*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 WAIAKAMILO RD*	*NE 1/2 - 1 (0.933 mi.)*	*T64*	*117*
BHP PIER 29	739 N NIMITZ HWY	E 1/2 - 1 (0.938 mi.)	S65	118
1385 COLBURN STREET	*1385 COLBURN ST*	*NE 1/2 - 1 (0.944 mi.)*	*T66*	*119*
HOME DEPOT	*421 ALAKAWA ST*	*ENE 1/2 - 1 (0.955 mi.)*	*Q67*	*121*
700 N NIMITZ IDPP RELEASE	*700 N NIMITZ HWY*	*E 1/2 - 1 (0.955 mi.)*	*S68*	*122*
KEEHI SMALL BOAT HARBOR	*4 SAND ISLAND RD*	*SE 1/2 - 1 (0.956 mi.)*	*69*	*123*
CONOCOPHILLIPS 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 (0.988 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

HI LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SAND ISLAND WASTEWATER TREATME	*1350 SAND ISLAND PARKWA*	*SE 1/8 - 1/4 (0.206 mi.)*	*C16*	*40*
Facility Status: Site Cleanup Completed (NFA)				
MATSON TERMINALS & MAINTENANCE	*1411 SAND ISLAND ACCESS*	*ESE 1/8 - 1/4 (0.247 mi.)*	*19*	*50*
Facility Status: Monitored Natural Attenuation				
KAPALAMA MILITARY RESERVATION	*BLDG 942 TANK 942-1, 94*	*NNW 1/4 - 1/2 (0.382 mi.)*	*21*	*57*
Facility Status: Case Transferred to HEER (regulated)				
TOMMY OF HAWAII, INC	*1812 AUIKI ST*	*N 1/4 - 1/2 (0.476 mi.)*	*D22*	*57*
Facility Status: Site Cleanup Completed (NFA)				
MODERN MACARONI CO, LTD	*1708 MARY ST*	*N 1/4 - 1/2 (0.484 mi.)*	*D23*	*58*
Facility Status: Site Cleanup Completed (NFA)				
HAWAIIAN MASON & PLASTERS UNIO	*1930 AUIKI ST*	*N 1/4 - 1/2 (0.487 mi.)*	*24*	*59*
Facility Status: Site Cleanup Completed (NFA)				

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
HIRI HARBOR TERMINAL (PMID 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*
SAND ISLAND WASTEWATER TREATME	*1350 SAND ISLAND PARKWA*	*SE 1/8 - 1/4 (0.206 mi.)*	*C16*	*40*
MATSON TERMINALS & MAINTENANCE	*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
TOWCO - SAND ISLAND	*1350 SAND ISLAND PKWY*	*SE 1/8 - 1/4 (0.206 mi.)*	*C15*	*36*

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
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*

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
AIRCRAFT SERVICE INTERNATIONAL	*6 SAND ISLAND ACCESS RO*	*NNW 1/8 - 1/4 (0.171 mi.)*	*B12*	*31*
DEPT OF BUISNESS ECON DEVL AND	*10 SAND ISLAND ACCESS R*	*NNW 1/8 - 1/4 (0.216 mi.)*	*18*	*48*

Lower Elevation	Address	Direction / Distance	Map ID	Page
USDOC NOAA SHIP TOWNSEND CROMW	*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

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 whale 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 (oily 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

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	HI SHWS
KALIHI AND KALAEPAA INTERSECTION	HI SHWS, HI SPILLS
ABC DISPOSAL COMPANY	HI SHWS
FORMER KAPALAMA MILITARY RESERVATI	HI SHWS
NIMITZ HIGHWAY WATER IMPROVEMENT P	HI SHWS
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



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: SOEST Facility	CLIENT: Enviro Srvcs. and Trng. Center
ADDRESS: Sand Island Access Road Honolulu HI 96819	CONTACT: Lisa Baxter
LAT/LONG: 21.3118 / 157.8876	INQUIRY #: 4138072.2s DATE: November 19, 2014 0:44 am

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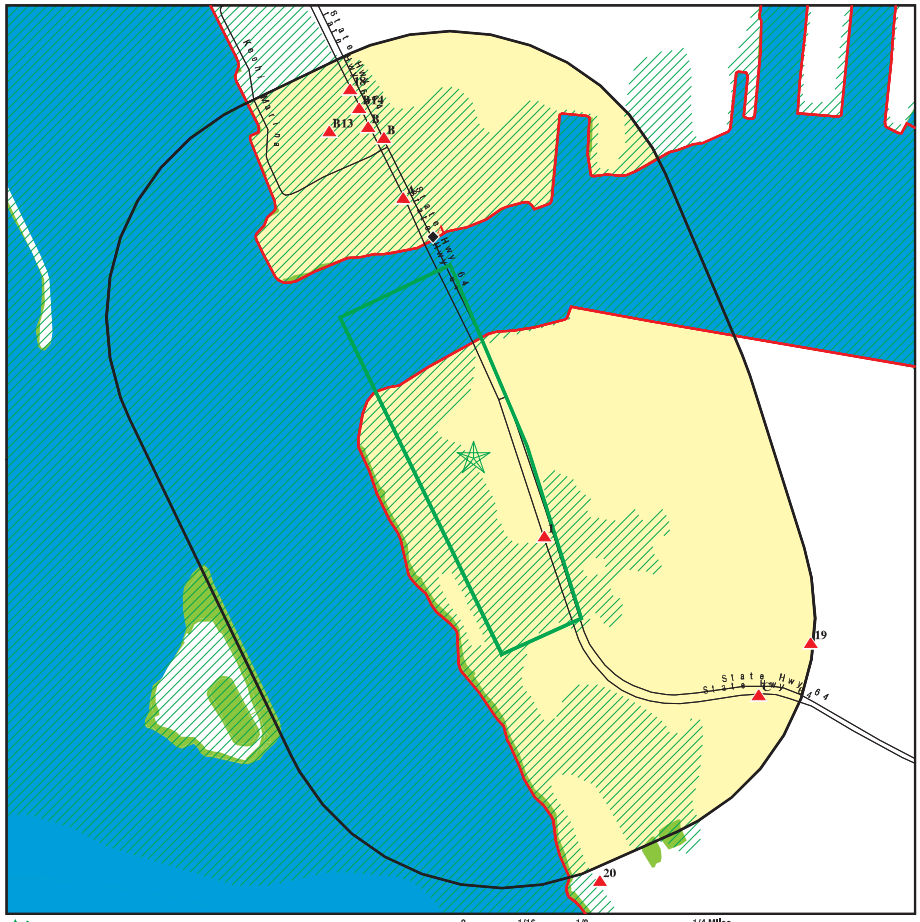
DETAIL MAP - 4138072.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
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ADDRESS: Sand Island Access Road Honolulu HI 96819	CONTACT: Lisa Baxter
LAT/LONG: 21.3118 / 157.8876	INQUIRY #: 4138072.2s DATE: November 19, 2014 0:45 am

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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
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
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
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.500		1	0	0	NR	NR	1
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
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
Federal institutional controls / engineering controls registries								
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
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
HI SHWS	1.000		2	5	1	50	NR	58
State and tribal landfill and/or solid waste disposal site lists								
HI SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
HI LUST	0.500		0	2	4	NR	NR	6
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
HI UST	0.250		2	3	NR	NR	NR	5
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
HI ENG CONTROLS	0.500		0	1	0	NR	NR	1
HI INST CONTROL	0.500		0	2	0	NR	NR	2
State and tribal voluntary cleanup sites								
HI VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
HI BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	1	NR	NR	1
Local Lists of Landfill / Solid Waste Disposal Sites								
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
Local Lists of Hazardous waste / Contaminated Sites								
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
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
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
Other Ascertainable Records								
RCRA 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	1	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	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0

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
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
HI UIC	TP		NR	NR	NR	NR	NR	0
HI DRYCLEANERS	0.250		0	0	NR	NR	NR	0
CA HAZNET	TP		NR	NR	NR	NR	NR	0
HI AIRS	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
HI Financial Assurance	TP		NR	NR	NR	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	1	NR	1
EDR US Hist Auto Stat	0.250		0	0	NR	NR	NR	0
EDR US Hist Cleaners	0.250		0	0	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
HI RGA LF	TP		NR	NR	NR	NR	NR	0
HI RGA LUST	TP		NR	NR	NR	NR	NR	0
HI RGA HWS	TP		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

MAP FINDINGS

Map ID / Direction / Distance / Elevation | Site | Database(s) | EDR ID Number / EPA ID Number

DOD
Region East
1/2-1
2766 ft.

SAND ISLAND MILITARY RESERVATION — **DOD** — **CUSA147757** / **N/A**

SAND ISLAND MILITARY RESE (County), HI

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
< 1/8
1 ft.

TOWCO — **CERC-NFRAP** — **1003879701** / **HID984468645**
16-1 SAND ISLAND PARKWAY ROAD
HONOLULU, HI 96819

Relative:
Higher

Actual:
3 ft.

CERC-NFRAP:
- Site ID: 0904530
- 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

CERCLIS-NFRAP Site Contact Details:
- Contact Sequence ID: 13037514.00000
- Person ID: 9000059.00000

CERCLIS-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: ARCHIVE SITE
- Date Started: / /
- Date Completed: 10/15/92
- Priority Level: Not reported

- Action: DISCOVERY
- Date Started: / /
- Date Completed: 07/23/92
- Priority Level: Not reported

A2 **UH MARINE CENTER** **HI UST** **U003222010**
North **1 SAND ISLAND ACCESS RD** **N/A**
< 1/8 **HONOLULU, HI 96819**
0.035 mi.
184 ft. **Site 1 of 6 in cluster A**

Relative:
Lower

Actual:
1 ft.

UST:

Facility ID:	9-201058
Owner:	STATE U.H. - MARINE CENTER
Owner Address:	1 SAND ISLAND ACCESS RD
Owner City,St,Zip:	Honolulu, 96819 96819
Latitude:	Not reported
Longitude:	Not reported
Horizontal Reference Datum Name:	Not reported
Tank ID:	R-1
Date Installed:	04/09/1977
Tank Status:	**Permanently Out of Use**
Date Closed:	06/10/1993
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 **USDOC NOAA SHIP TOWNSEND CROMWELL** **RCRA NonGen / NLR** **1000143213**
North **1 SAND ISLAND ACCESS RD** **CA HAZNET** **HI6130090065**
< 1/8 **HONOLULU, HI 96819**
0.035 mi.
184 ft. **Site 2 of 6 in cluster A**

Relative:
Lower

Actual:
1 ft.

RCRA NonGen / NLR:

Date form received by agency:	09/30/1993
Facility name:	USDOC NOAA SHIP TOWNSEND CROMWELL
Facility address:	1 SAND ISLAND ACCESS RD HONOLULU, HI 96819
EPA ID:	HI6130090065
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

USDOC NOAA SHIP TOWNSEND CROMWELL (Continued) **1000143213**

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED 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 NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
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
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

HAZNET:

Year:	2003
Gepaid:	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:	Unspecified aqueous solution
Disposal Method:	Treatment, Tank
Tons:	0.27
Facility County:	99

USDOC NOAA SHIP TOWNSEND CROMWELL (Continued) **1000143213**

Year: 2003
Gepaid: 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 **UNIVERSITY OF HAWAII MARINE CENTER** **RCRA-SQG** **1010316477**
North **1 SAND ISLAND ACCESS RD** **FINDS** **HIR000138008**
< 1/8 **HONOLULU, HI 96819**
0.035 mi.
184 ft. **Site 3 of 6 in cluster A**

Relative:
Lower

Actual:
1 ft.

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: HIR000138008
Contact: STAN WINSLOW
Contact address: 1 SAND ISLAND ACCESS RD
HONOLULU, HI 96819
Contact country: US
Contact telephone: 808-847-2662
Contact email: SWINSLOW@SOEST.HAWAII.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
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
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

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: 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

UNIVERSITY OF HAWAII MARINE CENTER (Continued) **1010316477**

Waste name: MERCURY

Waste code: D018
Waste name: BENZENE

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, 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, 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.

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,T)

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 08/08/2006
Date achieved compliance: 04/18/2007
Violation lead agency: State

UNIVERSITY OF HAWAII MARINE CENTER (Continued) **1010316477**

Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/08/2006
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
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 08/08/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/18/2007
Evaluation lead agency: State

FINDS:

Registry ID: 110005722897

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.

A5 **UNIVERSITY OF HAWAII, MARINE CENTER** **HI SHWS S106820725**
North **1 SAND ISLAND ACCESS RD** **HI SPILLS N/A**
< 1/8 **HONOLULU, HI 96819**
0.035 mi.
184 ft. **Site 4 of 6 in cluster A**

Relative:
Lower

Actual:
1 ft.

SHWS:
Organization: Not reported
Supplemental Location: Not reported
Island: Oahu
Environmental Interest: University of Hawaii, Marine Center
HID Number: Not reported
Facility Registry Identifier: 110013772694
Lead Agency: HEER
Program: State
Project Manager: Ukris Wongse-Ont
Hazard Priority: NFA
Potential Hazards And Controls: No Hazard
Organization: Not reported
Island: Oahu
Supplemental Location Text: Not reported
SDAR Environmental Interest Name: University of Hawaii, Marine Center
HID Number: Not reported
Facility Registry Identifier: 110013772694
Lead Agency: HEER
Progran Name: State
Potential Hazard And Controls: No Hazard
Priority: NFA
Assessment: Response Not Necessary

UNIVERSITY OF HAWAII, MARINE CENTER (Continued) **S106820725**

Response:	Response Complete
Nature of Contamination:	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 Areawide 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. 20030523-0009
Project Manager:	Ukris Wongse-Ont
Contact Information:	(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:

Island:	Oahu
Supplemental Loc. Text:	Not reported
Case Number:	20010522-0700
HID Number:	Not reported
Facility Registry Id:	110013772694
Lead and Program:	HEER EP&R
ER:	Not reported
Units:	UH Research vessel oil release
Substances:	Lubricating Oil
Less Or Greater Than:	Not reported
Numerical Quantity:	20
Units:	Gallons
Activity Type:	Response
Activity Lead:	Mike Cripps
Assignment End Date:	Not reported
Result:	SOSC NFA
File Under:	State of Hawaii, University of Hawaii

Island:	Oahu
Supplemental Loc. Text:	Not reported
Case Number:	20030523-0900
HID Number:	Not reported
Facility Registry Id:	110013772694
Lead and Program:	HEER EP&R
ER:	No
Units:	Used Oil Spill Release
Substances:	Oil
Less Or Greater Than:	Not reported
Numerical Quantity:	2
Units:	Gallons
Activity Type:	Response
Activity Lead:	Liz Galvez
Assignment End Date:	Not reported
Result:	SOSC NFA
File Under:	State of Hawaii, University of Hawaii

A6 **HIRI HARBOR TERMINAL (PMID 010103)** **HI SHWS U003221560**
NNW **2 SAND ISLAND ACCESS RD** **HI UST N/A**
< 1/8 **HONOLULU, HI 96819** **HI Financial Assurance**
0.087 mi.
457 ft. **Site 5 of 6 in cluster A**

Relative:
Higher

Actual:
3 ft.

SHWS:

Organization:	Not reported
Supplemental Location:	Not reported
Island:	Oahu
Environmental Interest:	Tesoro Hawaii Corporation, Terminal Department-Sand Island
HID Number:	Not reported
Facility Registry Identifier:	110001412472
Lead Agency:	HEER
Program:	State
Project Manager:	Eric Sadoyama
Hazard Priority:	Medium
Potential Hazards And Controls:	Hazard Present
Organization:	Not reported
Island:	Oahu
Supplemental Location Text:	Not reported
SDAR Environmental Interest Name:	Tesoro Hawaii Corporation, Terminal Department-Sand Island
HID Number:	Not reported
Facility Registry Identifier:	110001412472
Lead Agency:	HEER
Progran Name:	State
Potential Hazard And Controls:	Hazard Present
Priority:	Medium
Assessment:	Response Necessary
Response:	Response Ongoing
Nature of Contamination:	Presumed: Unknown
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 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

UST:

Facility ID:	9-100062
Owner:	BHP HAWAII INC.
Owner Address:	P.O. BOX 3379
Owner City,St,Zip:	Honolulu, 96819 96819
Latitude:	21.3157
Longitude:	-157.889
Horizontal Reference Datum Name:	NAD83

Tank ID:	R-UGT-1
Date Installed:	01/13/1976
Tank Status:	**Permanently Out of Use**
Date Closed:	08/01/1997
Tank Capacity:	5000
Substance:	Mixture

HIRI HARBOR TERMINAL (PMID 010103) (Continued) **U003221560**

HI Financial Assurance:
- Alt Facility ID: 9-100062
- Tank Id: R-UGT-1
- Tank Status: Permanently Out of Use
- FRTYPE: Self Insured
- Expiration Date: Not reported

A7 **SNAPPY SERVICE** **RCRA-SQG 1001218500**
NNW **2 SAND ISLAND ACCESS RD** **FINDS HIR000040535**
< 1/8 **HONOLULU, HI 96819** **US AIRS**
0.087 mi.
457 ft. **Site 6 of 6 in cluster A**

Relative: Higher

Actual: 3 ft.

RCRA-SQG:
- Date form received by agency: 06/08/1998
- Facility name: TESORO HAWAII SAND ISLAND TERM
- Facility address: 2 SAND ISLAND ACCESS RD
  HONOLULU, HI 96819
- EPA ID: HIR000040535
- Mailing address: P O BOX 3379
  HONOLULU, HI 96842
- Contact: RICHARD ROSEN
- Contact address: P O BOX 3379
  HONOLULU, HI 96842
- Contact country: US
- Contact telephone: (808) 547-3795
- Contact email: Not reported
- 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: TESORO HAWAII CORP
- Owner/operator address: P O BOX 3379
  HONOLULU, HI 96842
- Owner/operator country: Not reported
- Owner/operator telephone: (808) 547-3111
- Legal status: 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

SNAPPY SERVICE (Continued) **1001218500**

- 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

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: D018
- Waste name: BENZENE

- Violation Status: No violations found

Evaluation Action Summary:
- Evaluation date: 02/12/2009
- Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
- Area of violation: Not reported
- 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 (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

SNAPPY SERVICE (Continued) **1001218500**

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
Dunn & Bradst #:	Not reported
Air quality cntrl region:	060
Sic code:	5171
Sic code desc:	PETROLEUM BULK STATIONS AND TERMINALS
North Am. industrial classf:	Not reported
NAIC code description:	Not reported
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

B8 **USCG I S C HONOLULU** **RCRA-SQG** **1000455802**
NNW **4 SAND ISLAND ACCESS ROAD** **HI8690390036**
1/8-1/4 **HONOLULU, HI 96819**
0.149 mi.
785 ft. **Site 1 of 7 in cluster B**

Relative:
Higher

Actual:
3 ft.

RCRA-SQG:

Date form received by agency:	01/18/1999
Facility name:	USCG I S C HONOLULU
Facility address:	4 SAND ISLAND ACCESS ROAD USCG HONOLULU, HI 968191117
EPA ID:	HI8690390036
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 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, storer 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
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: 10/14/1998
Site name: USCG ISC HONOLULU
Classification: Large Quantity Generator

Date form received by agency: 02/22/1996
Site name: USCG BASE HONOLULU
Classification: Large Quantity Generator

Date form received by agency: 03/01/1994
Site name: COAST GUARD BASE HONOLULU
Classification: Large Quantity Generator

Date form received by agency: 03/11/1992
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 BY 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, 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, 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
Proposed 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

USCG I S C HONOLULU (Continued) **1000455802**

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 - 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: Not reported
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: 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: Not reported
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

USCG I S C HONOLULU (Continued) **1000455802**

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: Not reported
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

USCG I S C HONOLULU (Continued) **1000455802**

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 - 262.30-34.C
Area of violation: Generators - 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: 01/09/1997
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 - 268.7
Area of violation: LDR - General
Date violation determined: 01/09/1997
Date achieved compliance: 02/24/2000
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 - 262.20-23.B
Area of violation: Generators - General
Date violation determined: 04/04/1994
Date achieved compliance: 07/30/1994
Violation lead agency: EPA

USCG I S C HONOLULU (Continued) **1000455802**

Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/01/1994
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 - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 04/04/1994
Date achieved compliance: 07/30/1994
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/01/1994
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: 04/04/1994
Date achieved compliance: 07/30/1994
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/01/1994
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 - 262.40-43.D
Area of violation: Generators - General
Date violation determined: 04/04/1994
Date achieved compliance: 07/30/1994
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/01/1994
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

Evaluation Action Summary:
Evaluation date: 04/09/2012
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

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

USCG I S C HONOLULU (Continued) **1000455802**

Date achieved compliance: 07/30/1994
Evaluation lead agency: EPA

B9 **STATE OF HAWAII DLNR DBOR** **RCRA-CESQG 1004688939**
NNW **4 SAND ISLAND ACCESS RD** **FINDS HIR000000240**
1/8-1/4 **HONOLULU, HI 96819**
0.149 mi.
785 ft. **Site 2 of 7 in cluster B**

Relative:
Higher

Actual:
3 ft.

RCRA-CESQG:
Date form received by agency: 08/12/1999
Facility name: STATE OF HAWAII DLNR DBOR
Facility address: 4 SAND ISLAND ACCESS RD
KEEHI BOAT HARBOR
HONOLULU, HI 96819
EPA ID: HIR000000240
Contact: WESLEY CHOI
Contact address: 4 SAND ISLAND ACCESS RD KEEHI BOAT HARBOR
HONOLULU, HI 96819
Contact country: US
Contact telephone: (808) 832-3464
Contact email: Not reported
EPA Region: 09
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: 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) **1004688939**

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

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

B10 **KAPALAMA MILITARY RESERVATION** **HI SHWS** **U003221556**
NNW **SAND ISLAND ACCESS RD, BLDG 935** **HI UST** **N/A**
1/8-1/4 **HONOLULU, HI 96819** **HI Financial Assurance**
0.153 mi.
810 ft. **Site 3 of 7 in cluster B**

Relative:
Higher

Actual:
3 ft.

SHWS:
Organization: Not reported
Supplemental Location: Kapalama Military Reservation
Island: Oahu
Environmental Interest: Kapalama Military Reservation South Oahu Location
HID Number: HI7214522214
Facility Registry Identifier: 110013770348
Lead Agency: HEER
Program: Army
Project Manager: Unassigned
Hazard Priority: Not reported
Potential Hazards And Controls: Hazard Undetermined
Organization: Not reported
Island: Oahu
Supplemental Location Text: Kapalama Military Reservation
SDAR Environmental Interest Name: Kapalama Military Reservation South Oahu Location
HID Number: HI7214522214
Facility Registry Identifier: 110013770348
Lead Agency: HEER
Progran Name: Army
Potential Hazard And Controls: Hazard Undetermined

KAPALAMA MILITARY RESERVATION (Continued) **U003221556**

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 Areawide 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

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 Name: Not reported

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

B11 **HAWAII FUELING FACILITIES CORPORATION-SAND ISLAND SLURRY WAL** **HI SHWS** **S106817347**
NNW **6 SAND ISLAND ACCESS RD** **HI SPILLS** **N/A**
1/8-1/4 **HONOLULU, HI 96819**
0.171 mi.
904 ft. **Site 4 of 7 in cluster B**

Relative:
Higher

Actual:
3 ft.

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

HAWAII FUELING FACILITIES CORPORATION-SAND ISLAND SLURRY WAL (Continued) **S106817347**

HID Number:	Not reported
Facility Registry Identifier:	Not reported
Lead Agency:	HEER
Program:	State
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
Progran Name:	State
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 Areawide Contamination:	Not reported
Site Closure Type:	Not reported
Document Date:	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
Assignment End Date:	2008-08-20 00:00:00
Result:	Refer to ISST
File Under:	Hawaii Fueling Facilities Corporation

B12 **AIRCRAFT SERVICE INTERNATIONAL GROUP SAND ISLAND TERMINAL** **RCRA NonGen / NLR** **1012178151**
NNW **6 SAND ISLAND ACCESS ROAD** **FINDS** **HIP000059022**
1/8-1/4 **HONOLULU, HI 96819**
0.171 mi.
904 ft. **Site 5 of 7 in cluster B**

Relative:
Higher

Actual:
3 ft.

RCRA NonGen / NLR:

Date form received by agency:	08/28/2009
Facility name:	ROBINSON PREZIOSO INC
Facility 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:

Owner/operator name:	ROBINSON PREZIOSO INC
Owner/operator address:	P O BOX 2448 SANTA FE SPRINGS, CA 90670
Owner/operator country:	Not reported
Owner/operator telephone:	(562) 906-9002
Legal status:	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

AIRCRAFT SERVICE INTERNATIONAL GROUP SAND ISLAND TERMINAL (Continued) **1012178151**

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 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: 110060269962

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.

B13
NNW
1/8-1/4
0.185 mi.
977 ft.

Relative:
Higher

Actual:
3 ft.

HAWAII FUELING FACILITIES CORPORATION-SAND ISLAND ACCESS ROA **HI SHWS** **S111677227**
6 & 8 SAND ISLAND ACCESS RD **HI SPILLS** **N/A**
HONOLULU, HI 96819

Site 6 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 Access Road
HID Number:	Not reported
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

HAWAII FUELING FACILITIES CORPORATION-SAND ISLAND ACCESS ROA (Continued) **S111677227**

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 Areawide 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 00:00:00
Result:	SOSC 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:	SOSC 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
Units:	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:	Not reported
Result:	SOSC NFA
File Under:	Hawaii Fueling Facilities Corporation

B14 **HAWAII FUELING FACILITIES CORPORATION-SAND ISLAND TANK 4 REL** **HI SHWS** **S111677229**
NNW **8 SAND ISLAND ACCESS RD** **HI SPILLS** **N/A**
1/8-1/4 **HONOLULU, HI** **HI INST CONTROL**
0.194 mi.
1022 ft. **Site 7 of 7 in cluster B**

Relative:
Higher

Actual:
3 ft.

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:	Not reported
Lead Agency:	HEER
Program:	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:	Not reported
Lead Agency:	HEER
Progran Name:	State
Potential Hazard And Controls:	Hazard Present
Priority:	Low
Assessment:	Response Necessary
Response:	Response Ongoing
Nature of Contamination:	Not reported
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:	Not reported
Site Closure Type:	Not reported
Document Date:	Not reported
Document Number:	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:	Not reported
Lead Agency:	HEER
Program:	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:	Not reported
Lead Agency:	HEER
Progran Name:	State
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.
Nature of Residual Contamination:	Not reported
Use Restrictions:	Controls Required to Manage Contamination
Engineering Control:	Not reported
Description of Restrictions:	Not reported
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:	01/22/2010
Document Number:	2010-053-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
Units:	Not reported

HAWAII FUELING FACILITIES CORPORATION-SAND ISLAND TANK 4 REL (Continued) **S111677229**

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

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C15 **TOWCO - SAND ISLAND** **HI SHWS** **S107769133**
SE **1350 SAND ISLAND PKWY** **HI ENG CONTROLS** **N/A**
1/8-1/4 **HONOLULU, HI 96819** **HI INST CONTROL**
0.206 mi. **HI AIRS**
1090 ft. **Site 1 of 3 in cluster C**

Relative:
Higher

Actual:
3 ft.

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:	Not reported
SDAR Environmental Interest Name:	Sand Island WWTP
HID Number:	Not reported
Facility Registry Identifier:	110005726802
Lead Agency:	HEER
Progran 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
Nature of Residual Contamination:	PCBs in soil below TSCA levels.
Use Restrictions:	Controls Required to Manage Contamination
Engineering Control:	Engineering Control Required
Description of Restrictions:	The Site is limited to commercial use.
Institutional Control:	Government - Hawaii Dept. of Health Letter Issued
Within Designated Areawide 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
Project Manager:	Cal Miyahara
Contact Information:	(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

TOWCO - SAND ISLAND (Continued) **S107769133**

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)
SDAR Environmental Interest Name:	Mokuone Electrical Substation
HID Number:	Not reported
Facility Registry Identifier:	Not reported
Lead Agency:	Not reported
Progran 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.
Nature of Residual Contamination:	Lead and petroleum contaminated soils
Use Restrictions:	Controls Required to Manage Contamination
Engineering Control:	Engineering Control Required
Description of Restrictions:	SOIL: Restricted Use - Maintenance of a cap over lead and petroleum contaminated soils. GROUNDWATER: Unrestricted Use
Institutional Control:	Government - Hawaii Dept. of Health Letter Issued
Within Designated Areawide Contamination:	Honolulu Harbor Sand Island Unit
Site Closure Type:	No Further Action Letter - Restricted Use
Document Date:	11/13/2006
Document Number:	2006-697-DE
Document Subject:	No Further Action Determination for Soil Contamination at 1350 Sand Island Parkway, Honolulu HI 9681
Project Manager:	Diane England
Contact Information:	(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814
Organization:	Not reported
Supplemental Location:	Not reported
Island:	Oahu
Environmental Interest:	Towco - Sand Island
HID Number:	HID984468645
Facility Registry Identifier:	110013773764
Lead Agency:	HEER
Program:	State
Project Manager:	Unassigned
Hazard Priority:	Low
Potential Hazards And Controls:	Hazard Undetermined
Organization:	Not reported
Island:	Oahu
Supplemental Location Text:	Not reported
SDAR Environmental Interest Name:	Towco - Sand Island
HID Number:	HID984468645
Facility Registry Identifier:	110013773764
Lead Agency:	HEER

TOWCO - SAND ISLAND (Continued) **S107769133**

Progran 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 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: 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: 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: 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
Locale: Sand Island Wastewater Treatment Plant
Mailing City,St,Zip: Honolulu, HI 96814-2506
Contact Name: James Morrow
Contact Title: Consultant
Description: Sand Island Wastewater Treatment PlantAttachment IIA:1.This portion of the Noncovered Source Permit encompasses the following equipment and associated appurtenances:a.Lo-Cat Odor Control Systemi.Consists

TOWCO - SAND ISLAND (Continued) **S107769133**

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 Flotator Clarifiers(2)Effluent Launders for the Primary Flotator Clarifiers(3)Sludge Thickener Tanksb.Clarifier Odor Control Systemi.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 four air from the influent channel and primary clarifiers no. 7 and 8.c.Headworks Odor Control Systemi.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 Systemi.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 Systemi.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 (WSST), Gravity Thickeners, Return Flow Pump Station and Makai Lift Station.c.Primary Clarifier Odor Control Systemi.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 SouthInfluent Channel.Attachment IIC:1.This portion of the Noncovered Source Permit encompasses the following equipment and associated appurtenances:Four (4) 2000 bhp (nominal) combination electric/diesel engine effluent pumps, (Diesel engines - Caterpillar, model no. D-3516). Located at the disinfection facility/effluent pump station.

Facility ID: 0216-06-C
Island: Oahu
Mailing Address: 1350 Sand Island Parkway
Locale: Sand Island Wastewater Treatment Plant
Mailing City,St,Zip: Honolulu, HI 96819
Contact Name: Athan Adachi
Contact Title: Chief, Wastewater Treatment and Disposal Division
Description: In-Vessel Bioconversion Facility1.This Covered Source Permit encompasses the following equipment and associated appurtenances:a.Andritz DDS-40 Drying System (Exhaust Stack No. 1)i.Combustion Furnace1)Heat capacity: 17.8 MMBtu/hr2)Burns scrubbed digester gas or diesel fuel no. 2 (secondary fuel); propane for pilot light3)Fuel consumptiona) Digester gas - 32,364 scf/hrb) Diesel fuel no. 2 - 127 gphii.Rotary Drum Dryeriii.Regenerative Thermal Oxidizer (RTO)1)Heat capacity: 2.0 MMBtu/hr2) Burns diesel fuel no. 23)Fuel consumption: 14.3 gphiv.Wet Venturi Scrubberb.Building Air Chemical Odor Control Scrubber (routed through Exhaust Stack No. 1)i. Capacity: 25,000 cfmc.Two (2) Fugitive Dust Control Systemsi.Fugitive Dust Control System No. 11) Collects dust from the mixer, crusher-to-mixer and screen-to-silo bucket elevators, pellet cooler, and pneumatic conveyor2)Consists of MAC Pulse Jet Dust Filter (baghouse)3)Exhaust from baghouse routed through RTO then through

TOWCO - SAND ISLAND (Continued) **S107769133**

Exhaust Stack No. 1ii.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 ControlScrubber then through Exhaust Stack No. 1d. Hot Water Boiler (Exhaust Stack No. 2)i.Heat capacity: 2.5 MMBtu/hrii.Burns scrubbed digester gas or diesel fuel no. 2 (secondary fuel); propane for pilot lightiii.Fuel consumption1)Digester gas - 4,545 scf/hr2)Diesel fuel no. 2 - 17.9 gphe.Waste Gas Burner Backup (Exhaust Stack No. 3)i.Capacity: 8,000 scfhii.Burns unscrubbed digester gas; propane and/or digester gas for pilot lightf.Gas Purifiersg.Two (2) Pellet Storage Silosh.Waste Gas Burner (Exhaust Stack No. 4)i.Varec Biogas 244E Enclosed Burner Systemii.Capacity: 20,862 scfhiii.Burns unscrubbed digester gas; propane and/or digester gas for pilot light

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C16 **SAND ISLAND WASTEWATER TREATMENT PLANT** **HI LUST** **U003858602**
SE **1350 SAND ISLAND PARKWAY** **HI UST** **N/A**
1/8-1/4 **HONOLULU, HI 96819** **HI Financial Assurance**
0.206 mi.
1090 ft. **Site 2 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

UST:
Facility ID: 9-103745
Owner: C&C OF HNL - DIVISION OF WASTEWATER MANAGEMENT
Owner Address: 650 S KING ST., 3RD FLOOR
Owner City,St,Zip: Honolulu, 96819 96819
Latitude: 21.3071
Longitude: -157.881
Horizontal Reference Datum Name: NAD83

Tank ID: R-1
Date Installed: Not reported
Tank Status: **Permanently Out of Use**
Date Closed: 10/01/2004
Tank Capacity: 550
Substance: Diesel

Tank ID: R-M-1
Date Installed: 05/07/1981
Tank Status: **Permanently Out of Use**
Date Closed: 10/01/2004
Tank Capacity: 1000
Substance: Diesel

HI Financial Assurance:
Alt Facility ID: 9-100146
Tank Id: R-M-1
Tank Status: Permanently Out of Use
FRTYPE: Other

SAND ISLAND WASTEWATER TREATMENT PLANT (Continued) **U003858602**

Expiration Date: Not reported

C17 **SAND ISLAND WWTP** **RCRA-CESQG** **1004688859**
SE **1350 SAND ISLAND** **ICIS** **HID982472383**
1/8-1/4 **HONOLULU, HI 96819** **FINDS**
0.206 mi. **US AIRS**
1090 ft. **Site 3 of 3 in cluster C**

Relative: Higher

Actual: 3 ft.

RCRA-CESQG:
Date form received by agency: 09/14/1995
Facility name: SAND ISLAND WWTP
Facility address: 1350 SAND ISLAND
HONOLULU, HI 96819
EPA ID: HID982472383
Mailing address: SAND ISLAND
HONOLULU, HI 96819
Contact: DALE TAKANISHI
Contact address: 1350 SAND ISLAND
HONOLULU, HI 96819
Contact country: US
Contact telephone: (808) 847-8309
Contact email: Not reported
EPA Region: 09
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: CITY & COUNTY HONOLULU
Owner/operator address: 650 S KING ST
HONOLULU, HI 96813
Owner/operator country: Not reported
Owner/operator telephone: (808) 527-6663
Legal status: County
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
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: County
Owner/Operator Type: Operator

SAND ISLAND WWTP (Continued) **1004688859**

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

Violation Status: No violations found

ICIS:
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
Enforcement Action Type: Civil Judicial Action
Facility County: HONOLULU
EPA Region #: 9

Enforcement Action ID: 09-2004-0434
FRS ID: 110005726802
Program ID: RCRAINFO HID982472383
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
Enforcement Action Type: Civil Judicial Action
Facility County: HONOLULU
EPA Region #: 9

Enforcement Action ID: 09-2004-0434
FRS ID: 110005726802
Program ID: FRS 110005726802
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

SAND ISLAND WWTP (Continued) **1004688859**

HONOLULU, HI 96819-4319
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
Enforcement Action Type: Civil Judicial Action
Facility County: HONOLULU
EPA Region #: 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
Enforcement Action Type: Civil Judicial Action
Facility County: HONOLULU
EPA Region #: 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
Enforcement Action Type: Civil Judicial Action
Facility County: HONOLULU
EPA Region #: 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
Enforcement Action Type: Civil Judicial Action
Facility County: HONOLULU
EPA Region #: 9

SAND ISLAND WWTP (Continued) **1004688859**

Enforcement Action ID: 09-1991-0033
FRS ID: 110005726802
Program ID: HI-EHW 14194
Action Name: HONOLULU, CITY AND COUNTY
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
Enforcement Action Type: Civil Judicial Action
Facility County: HONOLULU
EPA Region #: 9

Enforcement Action ID: 09-1991-0033
FRS ID: 110005726802
Program ID: RCRAINFO HID982472383
Action Name: HONOLULU, CITY AND COUNTY
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
Enforcement Action Type: Civil Judicial Action
Facility County: HONOLULU
EPA Region #: 9

Enforcement Action ID: 09-1991-0033
FRS ID: 110005726802
Program ID: FRS 110005726802
Action Name: HONOLULU, CITY AND COUNTY
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
Enforcement Action Type: Civil Judicial Action
Facility County: HONOLULU
EPA Region #: 9

Enforcement Action ID: 09-1991-0033
FRS ID: 110005726802
Program ID: CWNS 15000003001
Action Name: HONOLULU, CITY AND COUNTY
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
Enforcement Action Type: Civil Judicial Action
Facility County: HONOLULU
EPA Region #: 9

Enforcement Action ID: 09-1991-0033
FRS ID: 110005726802
Program ID: HI-EHW 8770
Action Name: HONOLULU, CITY AND COUNTY
Full Address: 1350 SAND ISLAND PARKWAY HONOLULU HI 96819-4319

SAND ISLAND WWTP (Continued) **1004688859**

State: Hawaii
Facility Name: NAVAL AIR STATION - BARBERS POINT
Facility Address: 1350 SAND ISLAND PARKWAY
HONOLULU, HI 96819-4319
Enforcement Action Type: Civil Judicial Action
Facility County: HONOLULU
EPA Region #: 9

Enforcement Action ID: 09-1991-0033
FRS ID: 110005726802
Program ID: AIRS/AFS 1500300058
Action Name: HONOLULU, CITY AND COUNTY
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
Enforcement Action Type: Civil Judicial Action
Facility County: HONOLULU
EPA Region #: 9

Enforcement Action ID: 09-1991-0033
FRS ID: 110005726802
Program ID: HI-EHW 14227
Action Name: HONOLULU, CITY AND COUNTY
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
Enforcement Action Type: Civil Judicial Action
Facility County: HONOLULU
EPA Region #: 9

Program ID: AIRS/AFS 1500300058
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 15000003001
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

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 HID982472383
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 1500300058
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 15000003001
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

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 HID982472383
Facility Name: SAND ISLAND WWTP
Address: 1350 SAND ISLAND PARKWAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: 4952

FINDS:

Registry ID: 110057700279

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 (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

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 cntrl region:	Not reported
Sic code:	4952
Sic code desc:	SEWERAGE SYSTEMS
North Am. industrial classf:	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

18
NNW
1/8-1/4
0.216 mi.
1141 ft.

Relative:
Higher

Actual:
3 ft.

DEPT OF BUISNESS ECON DEVL AND TOURISM **RCRA NonGen / NLR** **1000978848**
10 SAND ISLAND ACCESS RD **FINDS** **HI0000953406**
HONOLULU, HI 96813

RCRA NonGen / NLR:

Date form received by agency:	12/01/1994
Facility name:	DEPT OF BUISNESS ECON DEVL AND TOURISM
Facility address:	10 SAND ISLAND ACCESS RD HONOLULU, HI 96813
EPA ID:	HI0000953406
Mailing address:	PO BOX 2359 HONOLULU, HI 96804
Contact:	CHRIS CHUNG
Contact address:	PO BOX 2359 HONOLULU, HI 96804
Contact country:	US
Contact telephone:	(805) 586-2534
Contact email:	Not reported
EPA Region:	09
Land type:	State
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	STATE OF HAWAII
Owner/operator address:	PO BOX 2359 HONOLULU, HI 96804
Owner/operator country:	Not reported
Owner/operator telephone:	(808) 586-2534
Legal status:	State
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

DEPT OF BUISNESS 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
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

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date:	04/12/1996
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State

FINDS:

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

19
ESE
1/8-1/4
0.247 mi.
1303 ft.

Relative:
Higher

Actual:
3 ft.

MATSON TERMINALS & MAINTENANCE F
1411 SAND ISLAND ACCESS RD
HONOLULU, HI 96819

HI LUST **U004223401**
HI UST **N/A**
HI Financial Assurance

LUST:
Facility ID: 9-100801
Facility Status: Monitored Natural Attenuation
Facility Status Date: 10/01/2001
Release ID: 890011
Project Officer: Shunsheng Fu

UST:
Facility ID: 9-100801
Owner: Matson Terminals
Owner Address: P.O. Box 2630
Owner City,St,Zip: Honolulu, 96819 96819
Latitude: 21.3089
Longitude: -157.882
Horizontal Reference Datum Name: NAD83

Tank ID: 87
Date Installed: 07/01/1996
Tank Status: **Currently In Use**
Date Closed: Not reported
Tank Capacity: 5000
Substance: Gasoline

Tank ID: D
Date Installed: 07/01/1996
Tank Status: **Currently In Use**
Date Closed: Not reported
Tank Capacity: 10000
Substance: Diesel

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

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

Tank ID: R-3
Date Installed: 03/18/1981
Tank Status: **Permanently Out of Use**
Date Closed: 01/05/1996
Tank Capacity: 5000

MATSON TERMINALS & MAINTENANCE F (Continued) **U004223401**

Substance: Gasoline

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

HI Financial Assurance:
Alt Facility ID: 9-100801
Tank Id: R-2
Tank Status: Permanently Out of Use
FRTYPE: Other
Expiration Date: Not reported

Alt Facility ID: 9-100801
Tank Id: R-4
Tank Status: Permanently Out of Use
FRTYPE: Other
Expiration Date: Not reported

Alt Facility ID: 9-100801
Tank Id: 87
Tank Status: Currently In Use
FRTYPE: Other
Expiration Date: Not reported

Alt Facility ID: 9-100801
Tank Id: D
Tank Status: Currently In Use
FRTYPE: Other
Expiration Date: Not reported

Alt Facility ID: 9-100801
Tank Id: R-3
Tank Status: Permanently Out of Use
FRTYPE: Other
Expiration Date: Not reported

Alt Facility ID: 9-100801
Tank Id: R-1
Tank Status: Permanently Out of Use
FRTYPE: Other
Expiration Date: Not reported

Alt Facility ID: 9-100801
Tank Id: R-4
Tank Status: Permanently Out of Use
FRTYPE: Guarantee
Expiration Date: 05/01/2014

Alt Facility ID: 9-100801
Tank Id: R-2
Tank Status: Permanently Out of Use
FRTYPE: Guarantee

MATSON TERMINALS & MAINTENANCE F (Continued) **U004223401**

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

20 **SAND ISLAND** **US BROWNFIELDS** **1009311299**
SSE **1640 SAND ISLAND ACCESS ROAD** **N/A**
1/4-1/2 **HONOLULU, HI 96819**
0.264 mi.
1393 ft.

Relative:
Higher

Actual:
3 ft.

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:	21.3158787
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
Cleanup funding source:	Not reported
Assessment funding:	53018
Assessment funding source:	US EPA - TBA Funding
Redevelopment funding:	Not reported
Redev. funding source:	Not reported
Redev. funding entity name:	Not reported
Redevelopment start date:	Not reported
Assessment funding entity:	EPA

SAND ISLAND (Continued) **1009311299**

Cleanup funding entity:	Not reported
Grant type:	H
Accomplishment type:	Phase II Environmental Assessment
Accomplishment count:	0
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
Controled substance found:	Not reported
Controled 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 contams found description:	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

SAND ISLAND (Continued) **1009311299**

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) **1009311299**

Cleanup funding source:	Not reported
Assessment funding:	2500
Assessment funding source:	US EPA - TBA Funding
Redevelopment funding:	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
Accomplishment type:	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
Controled substance found:	Not reported
Controled 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 contams found description:	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

SAND ISLAND (Continued) **1009311299**

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
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

21 **KAPALAMA MILITARY RESERVATION** **HI LUST U001236360**
NNW **BLDG 942 TANK 942-1, 942-2, 942-3** **HI UST N/A**
1/4-1/2 **SCHOFIELD BARRACKS, HI 96786**
0.382 mi.
2018 ft.

Relative:
Higher

Actual:
3 ft.

LUST:

Facility ID:	9-201507
Facility Status:	Case Transferred to HEER (regulated)
Facility Status Date:	05/20/2008
Release ID:	890030
Project Officer:	To Heer

UST:

Facility ID:	9-201507
Owner:	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 Name:	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 **TOMMY OF HAWAII, INC** **HI LUST U003154474**
North **1812 AUIKI ST** **HI UST N/A**
1/4-1/2 **HONOLULU, HI 96819**
0.476 mi.
2512 ft. **Site 1 of 3 in cluster D**

Relative:
Higher

Actual:
3 ft.

LUST:

Facility ID:	9-100664
Facility Status:	Site Cleanup Completed (NFA)
Facility Status Date:	07/06/1994
Release ID:	930119
Project Officer:	Eric Sadoyama

TOMMY OF HAWAII, INC (Continued) **U003154474**

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 Name: NAD83

- Tank ID: R-1
- Date Installed: Not reported
- **Tank Status: Permanently Out of Use**
- Date Closed: 07/30/1993
- Tank Capacity: 1000
- Substance: Gasoline

D23 **MODERN MACARONI CO, LTD** **HI LUST** **1006843774**
North **1708 MARY ST** **HI UST** **N/A**
1/4-1/2 **HONOLULU, HI 96819** **HI Financial Assurance**
0.484 mi.
2557 ft. **Site 2 of 3 in cluster D**

Relative: Higher

Actual: 3 ft.

LUST:
- Facility ID: 9-102957
- Facility Status: Site Cleanup Completed (NFA)
- Facility Status Date: 05/01/1995
- Release ID: 940162
- Project Officer: Roger Brewer

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 Name: NAD83

- 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

HI Financial Assurance:
- Alt Facility ID: 9-102957
- Tank Id: R-1
- Tank Status: Permanently Out of Use
- FRTYPE: Self Insured
- Expiration Date: Not reported

24 **HAWAIIAN MASON & PLASTERS UNION** **HI LUST** **U003154613**
North **1930 AUIKI ST** **HI UST** **N/A**
1/4-1/2 **HONOLULU, HI 96819** **HI SPILLS**
0.487 mi. **HI AIRS**
2569 ft.

Relative: Higher

Actual: 3 ft.

LUST:
- Facility ID: 9-102738
- Facility Status: Site Cleanup Completed (NFA)
- Facility Status Date: 02/28/1995
- Release ID: 930102
- Project Officer: 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 Name: NAD83

- Tank ID: R-1
- Date Installed: 03/30/1978
- **Tank Status: Permanently Out of Use**
- Date Closed: 04/27/1993
- Tank Capacity: 10000
- Substance: Gasoline

HI SPILLS:
- Island: Oahu
- Supplemental Loc. Text: Not reported
- Case Number: 19951204-2
- HID Number: Not reported
- Facility Registry Id: Not reported
- Lead and Program: HEER EP&R
- ER: Yes
- Units: Paul Young Dry Cleaners
- Substances: Perchloroethylene (FOO3).
- 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: SOSC NFA
- File Under: Not reported

AIRS:
- Facility ID: 0278-02-C
- Island: Oahu
- Mailing Address: Not reported
- Locale: Not reported
- Mailing City,St,Zip: HI
- Contact Name: Gerald James "Jim" Fox
- Contact Title: Chief Engineer
- Description: 125 HP and 300 HP Johnston BoilersLarge Area Source Dry Cleaning FacilityAttachment IIA BoilersThis permit encompasses the following

HAWAIIAN MASON & PLASTERS UNION (Continued) **U003154613**

equipment:Unit No.Description Model No. Serial No.B-1125 hp Johnston BoilerPFMA-125-3LHP-150S10431B-2300 hp Johnston BoilerPFTA-300-4LG-150S 947-01Attachment IIB Large Area SourceDry Cleaning FacilityThis permit encompasses each Large Area Source dry cleaning facility that uses perchloroethylene (PERC). The permit 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); or2.140 to 1,800 gallons for each dry cleaning facility containing both dry-to-dry machine(s) and transfer machine system(s); or3.200 to 1,800 gallons for each dry cleaning facility containing only transfer machine system(s).

D25 **HAWAIIAN MISO AND SOY CO., LTD** **HI SHWS** **1006821063**
North **1714 MARY ST** **HI SPILLS** **N/A**
1/4-1/2 **HONOLULU, HI 96819**
0.489 mi.
2582 ft. **Site 3 of 3 in cluster D**

Relative:
Higher

Actual:
3 ft.

SHWS:

Organization:	Not reported
Supplemental Location:	Not reported
Island:	Oahu
Environmental Interest:	Hawaiian Miso and Soy Co., Ltd
HID Number:	Not reported
Facility Registry Identifier:	110013791049
Lead Agency:	HEER
Program:	State
Project Manager:	Diane England
Hazard Priority:	NFA
Potential Hazards And Controls:	No Hazard
Organization:	Not reported
Island:	Oahu
Supplemental Location Text:	Not reported
SDAR Environmental Interest Name:	Hawaiian Miso and Soy Co., Ltd
HID Number:	Not reported
Facility Registry Identifier:	110013791049
Lead Agency:	HEER
Progran 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 Areawide Contamination:	Not reported
Site Closure Type:	No Further Action Letter - Unrestricted Residential Use
Document Date:	11/14/2005
Document Number:	2005-579-DE
Document Subject:	No Further Action Determination for Release No. 19920722-4

HAWAIIAN MISO AND SOY CO., LTD (Continued) **1006821063**

Project Manager:	Diane England
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:	SOSC NFA
File Under:	Hawaiian Miso & Soy Co. Ltd.

Island:	Oahu
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:	SOSC NFA
File Under:	Hawaiian Miso & Soy Co. Ltd.

E26 **VEHICLE PROCESSING CENTER** **HI SHWS** **U003541752**
North **2101 AUIKI ST** **HI UST** **N/A**
1/2-1 **HONOLULU, HI 96819** **HI Financial Assurance**
0.516 mi.
2727 ft. **Site 1 of 2 in cluster E**

Relative:
Higher

Actual:
3 ft.

SHWS:

Organization:	Not reported
Supplemental Location:	Not reported
Island:	Oahu
Environmental Interest:	Servco Pacific, Inc. Kalihi
HID Number:	Not reported
Facility Registry Identifier:	110013778992
Lead Agency:	HEER
Program:	State
Project Manager:	Unassigned
Hazard Priority:	Low

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. Kalihi
HID Number:	Not reported
Facility Registry Identifier:	110013778992
Lead Agency:	HEER
Progran 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 Areawide 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:	SERVCO PACIFIC INC. DBA VEHICLE PROCESSING CENTER
Owner Address:	2101 AUIKI STREET
Owner City,St,Zip:	Honolulu, 96819 96819
Latitude:	21.3206
Longitude:	-157.89
Horizontal Reference Datum Name:	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

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 **2135 AUIKI ST** **HI SHWS** **S110061242**
NNW **2135 AUIKI ST** **N/A**
1/2-1 **HONOLULU, HI**
0.531 mi.
2805 ft. **Site 2 of 2 in cluster E**

Relative:
Higher

Actual:
3 ft.

SHWS:

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
Progran 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:	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

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

HI SHWS **U003221591**
HI LUST **N/A**
HI UST
HI SPILLS
HI Financial Assurance

SHWS:

Organization:	Not reported
Supplemental Location:	Not reported
Island:	Oahu
Environmental Interest:	McKesson Drug Company/Sealmasters
HID Number:	Not reported
Facility Registry Identifier:	110013358384
Lead Agency:	HEER
Program:	State
Project Manager:	Clarence Callahan
Hazard Priority:	NFA
Potential Hazards And Controls:	No Hazard
Organization:	Not reported
Island:	Oahu
Supplemental Location Text:	Not reported
SDAR Environmental Interest Name:	McKesson Drug Company/Sealmasters
HID Number:	Not reported
Facility Registry Identifier:	110013358384
Lead Agency:	HEER
Progran Name:	State
Potential Hazard And Controls:	No Hazard
Priority:	NFA
Assessment:	Response Necessary
Response:	Response Complete
Nature of Contamination:	Not reported
Nature of Residual Contamination:	very low levels of Benzo(a)pyrene and Fluoranthene in groundwater
Use Restrictions:	No Hazard Present For Unrestricted Residential Use
Engineering Control:	Not reported
Description of Restrictions:	Not reported
Institutional Control:	Not reported
Within Designated Areawide Contamination:	Not reported
Site Closure Type:	No Further Action Letter - Unrestricted Residential Use
Document Date:	11/03/2003
Document Number:	2003-359-CAC
Document Subject:	NFA Letter based on confirmed changes to document
Project Manager:	Clarence Callahan
Contact Information:	(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

LUST:

Facility ID:	9-100277
Facility Status:	Site Cleanup Completed (NFA)
Facility Status Date:	12/22/1998
Release ID:	970139
Project Officer:	Mark Sutterfield

UST:

Facility ID:	9-100277
Owner:	McKESSON DRUG COMPANY
Owner Address:	80 SAND ISLAND ACCESS RD
Owner City,St,Zip:	Honolulu, 96819 96819
Latitude:	21.3217
Longitude:	-157.892

MCKESSON WINE & SPIRITS CO. (Continued) **U003221591**

Horizontal Reference Datum Name: 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:	19911014-2
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:	SOSC 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 Roofing at Mckesson, 80 Sand Island Access Rd, Honolulu, Oahu, HI
Substances:	Black Liquid (Neogoul)
Less Or Greater Than:	Not reported
Numerical Quantity:	Not reported
Units:	Not reported
Activity Type:	Response

MCKESSON WINE & SPIRITS CO. (Continued) **U003221591**

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

F29 **USPS VEHICLE MAINTENANCE FACILITY** **HI SHWS** **S103290180**
NNW **89 SAND ISLAND ACCESS RD** **HI UIC** **N/A**
1/2-1 **HONOLULU, HI 96819** **HI SPILLS**
0.578 mi.
3050 ft. **Site 2 of 2 in cluster F**

Relative:
Higher

Actual:
3 ft.

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: Low
Potential Hazards And Controls: Hazard Present
Organization: Not reported
Island: Oahu
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
Progran 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

USPS VEHICLE MAINTENANCE FACILITY (Continued) **S103290180**

Engineering Control: Not reported
Description of Restrictions: Not reported
Institutional Control: Not reported
Within Designated Areawide Contamination: Honolulu Harbor Kapalama 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: UO-2017
Facility Id/Lat Long Minute Coordinates: 3-1953.
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: Not reported
Case Number: 19971217-1617
HID Number: Not reported
Facility Registry Id: 110014044630
Lead and Program: HEER EP&R
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

USPS VEHICLE MAINTENANCE FACILITY (Continued) **S103290180**

Assignment End Date: Not reported
Result: Refer to ISST
File Under: United States, Postal Service

G30 **TRANS HAWAIIAN - OAHU, INC.** **HI SHWS** **U003221615**
North **124 PUUHALE RD** **HI LUST** **N/A**
1/2-1 **HONOLULU, HI 96819** **HI UST**
0.605 mi.
3196 ft. **Site 1 of 2 in cluster G**

Relative:
Higher

Actual:
3 ft.

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
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
SDAR Environmental Interest Name: Trans Hawaiian Site
HID Number: Not reported
Facility Registry Identifier: 110013774433
Lead Agency: SHWB
Progran Name: State
Potential Hazard And Controls: No Hazard
Priority: NFA
Assessment: Assessment Ongoing
Response: Not reported
Nature of Contamination: Not reported
Nature of Residual Contamination: Not reported
Use Restrictions: No Hazard Present for Unrestricted Residential Use
Engineering Control: Not reported
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

LUST:
Facility ID: 9-100804
Facility Status: Site Cleanup Completed (NFA)
Facility Status Date: 09/13/2007
Release ID: 990140
Project Officer: Richard Takaba

Facility ID: 9-100804
Facility Status: Site Cleanup Completed (NFA)

TRANS HAWAIIAN - OAHU, INC. (Continued) **U003221615**

Facility Status Date: 09/13/2007
Release ID: 930019
Project Officer: Richard Takaba

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 Name: 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

Tank ID: R-2
Date Installed: 03/12/1971
Tank Status: **Permanently Out of Use**
Date Closed: 11/28/1992
Tank Capacity: 2000
Substance: Gasoline

Tank ID: R-3
Date Installed: 03/11/1978
Tank Status: **Permanently Out of Use**
Date Closed: 01/25/1999
Tank Capacity: 10000
Substance: Diesel

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31 **1122 MAKEPONO STREET** **HI SHWS** **S115488665**
ESE **1122 MAKEPONO STREET** **N/A**
1/2-1 **HONOLULU, HI 96819**
0.610 mi.
3222 ft.

Relative:
Higher

Actual:
3 ft.

SHWS:
Organization: Not reported
Supplemental Location: Not reported
Island: Oahu
Environmental Interest: 1122 Makepono Street
HID Number: Not reported
Facility Registry Identifier: Not reported
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) **S115488665**

SDAR Environmental Interest Name:	1122 Makepono Street
HID Number:	Not reported
Facility Registry Identifier:	Not reported
Lead Agency:	HEER
Progran Name:	State
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:	Not reported
Use Restrictions:	No Hazard Present For Unrestricted Residential Use
Engineering Control:	Not reported
Description of Restrictions:	Not reported
Institutional Control:	Not reported
Within Designated Areawide Contamination:	Not reported
Site Closure Type:	No Further Action Letter - Unrestricted Residential Use
Document Date:	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

G32 **STATE POULTRY PROCESSORS FACILITY** **HI SHWS** **S104534384**
North **2132 KALIAWA ST** **HI SPILLS** **N/A**
1/2-1 **HONOLULU, HI 96813**
0.621 mi.
3278 ft. **Site 2 of 2 in cluster G**

Relative:
Higher

Actual:
3 ft.

SHWS:

Organization:	Not reported
Supplemental Location:	(new) 1728 Hart St
Island:	Oahu
Environmental Interest:	State Poultry Processors Facility
HID Number:	Not reported
Facility Registry Identifier:	110013778028
Lead Agency:	HEER
Program:	State
Project Manager:	Fenix Grange
Hazard Priority:	NFA
Potential Hazards And Controls:	Hazard Undetermined
Organization:	Not reported
Island:	Oahu
Supplemental Location Text:	(new) 1728 Hart St
SDAR Environmental Interest Name:	State Poultry Processors Facility
HID Number:	Not reported
Facility Registry Identifier:	110013778028
Lead Agency:	HEER
Progran Name:	State
Potential Hazard And Controls:	Hazard Undetermined
Priority:	NFA
Assessment:	Assessment Ongoing
Response:	Not reported
Nature of Contamination:	Found: Diesel
Nature of Residual Contamination:	Not reported
Use Restrictions:	Undetermined
Engineering Control:	Not reported
Description of Restrictions:	Not reported

STATE POULTRY PROCESSORS FACILITY (Continued) **S104534384**

Institutional Control:	Not reported
Within Designated Areawide Contamination:	Not reported
Site Closure Type:	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

HI SPILLS:

Island:	Oahu
Supplemental Loc. Text:	Not reported
Case Number:	20061016-1313
HID Number:	Not reported
Facility Registry Id:	Not reported
Lead and Program:	HEER EP&R
ER:	No -
Units:	HECO Transformers 50950, 50951, 50952 Release
Substances:	Mineral Oil
Less Or Greater Than:	<
Numerical Quantity:	90
Units:	Gallons
Activity Type:	Response
Activity Lead:	Liz Galvez
Assignment End Date:	2007-10-04 00:00:00
Result:	SOSC NFA
File Under:	Hawaiian Electric Co., Inc. (HECO)

Island:	Oahu
Supplemental Loc. Text:	(new) 1728 Hart St
Case Number:	19920814-4
HID Number:	Not reported
Facility Registry Id:	110013778028
Lead and Program:	HEER EP&R
ER:	Not reported
Units:	Bond-Peiterson Properties
Substances:	Petroleum Hydrocarbon
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:	SOSC NFA
File Under:	State Poultry Processors Inc

H33 **FORMER FLYNN LEARNER** **HI SHWS** **U003221583**
NNW **120 SAND ISLAND ACCESS RD** **HI LUST** **N/A**
1/2-1 **HONOLULU, HI 96819** **HI UST**
0.623 mi. **HI ENG CONTROLS**
3290 ft. **Site 1 of 2 in cluster H** **HI INST CONTROL**
HI VCP

Relative:
Higher

Actual:
3 ft.

SHWS:

Organization:	Not reported
Supplemental Location:	Not reported
Island:	Oahu

FORMER FLYNN LEARNER (Continued) **U003221583**

Environmental Interest: Former Flynn-Learner Property
HID Number: HID984468363
Facility Registry Identifier: 110005727963
Lead Agency: Not reported
Program: Voluntary Response Program
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: Former Flynn-Learner Property
HID Number: HID984468363
Facility Registry Identifier: 110005727963
Lead Agency: Not reported
Progran 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: Not reported
Use Restrictions: Controls Required to Manage Contamination
Engineering Control: Engineering Control Required
Description of Restrictions: Prohibit Any Activity That May Disturb the Integrity of the Capping System
Institutional Control: Government - Hawaii Dept. of Health Letter Issued
Within Designated Areawide Contamination: Not reported
Site Closure Type: Letter of Completion - Restricted Use
Document Date: 07/21/2004
Document Number: Not reported
Document Subject: Letter of Completion (LOC)
Project Manager: Eric Sadoyama
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 Park91-056 Hanua St
Owner City,St,Zip: Honolulu, 96819 96819
Latitude: 21.3238
Longitude: -157.891
Horizontal Reference Datum Name: NAD83

Tank ID: R-1
Date Installed: 08/14/1984
Tank Status: Permanently Out of Use
Date Closed: 03/28/1996
Tank Capacity: 1000

FORMER FLYNN LEARNER (Continued) **U003221583**

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

H34 **158 SAND ISLAND ACCESS RD** **HI SHWS** **S110061240**
NNW **158 SAND ISLAND ACCESS RD** **N/A**
1/2-1 **HONOLULU, HI**
0.643 mi.
3395 ft. **Site 2 of 2 in cluster H**

Relative:
Higher

Actual:
3 ft.

SHWS:
Organization: Not reported
Supplemental Location: Not reported
Island: Oahu
Environmental Interest: 158 Sand Island Access Rd
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: 158 Sand Island Access Rd
HID Number: Not reported
Facility Registry Identifier: Not reported
Lead Agency: HEER
Progran Name: State
Potential Hazard And Controls: Hazard Present
Priority: Medium
Assessment: Response Necessary
Response: Response Ongoing
Nature of Contamination: Found: Arsenic, barium, cadmium, lead, petroleum hydrocarbon, and PCB in soils above HDOH Interim Final EALs.
Nature of Residual Contamination: Not reported
Use Restrictions: Controls Required to Manage Contamination

158 SAND ISLAND ACCESS RD (Continued) **S110061240**

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

35
North
1/2-1
0.686 mi.
3620 ft.

180 SAND ISLAND ACCESS RD **HI SHWS** **S110061241**
180 SAND ISLAND ACCESS RD **N/A**
HONOLULU, HI

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:	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:	180 Sand Island Access Rd
HID Number:	Not reported
Facility Registry Identifier:	Not reported
Lead Agency:	HEER
Progran Name:	State
Potential Hazard And Controls:	Hazard Present
Priority:	Medium
Assessment:	Response Necessary
Response:	Response Ongoing
Nature of Contamination:	Found: Lead present in the soil at concentrations above HDOH EAL. 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

36
NNW
1/2-1
0.721 mi.
3807 ft.

AIR ENGINEERING **HI SHWS** **U003221573**
2308 PAHOUNUI DR **HI LUST** **N/A**
HONOLULU, HI 96819 **HI UST**
HI ENG CONTROLS
HI INST CONTROL

Relative:
Higher

Actual:
3 ft.

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:	Not reported
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:	Not reported
Lead Agency:	HEER
Progran 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.
Nature of Residual 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:	Not reported
Site Closure Type:	No Further Action Letter - Restricted Use
Document Date:	05/27/2009
Document Number:	2009-346-KO
Document Subject:	No Further Action with Institutional Controls Determination at Hawaii Select Investments 2308 Paho
Project Manager:	Kelton Otsuka
Contact Information:	(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

LUST:

Facility ID:	9-100170
Facility Status:	Site Cleanup Completed (NFA)
Facility Status Date:	01/11/1995
Release ID:	950022
Project Officer:	Eric Sadoyama

UST:

Facility ID:	9-100170
Owner:	AMELCO CORPORATION
Owner Address:	2308 PAHOUNUI DR
Owner City,St,Zip:	Honolulu, 96819 96819
Latitude:	21.3249

AIR ENGINEERING (Continued) **U003221573**

Longitude: -157.892
Horizontal Reference Datum Name: 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

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I37 **YOUNG BROTHERS, LTD. PIERS 39, 40** **HI SHWS S108009312**
NE **1331 N NIMITZ HWY** **HI SPILLS N/A**
1/2-1 **HONOLULU, HI 96801**
0.729 mi.
3847 ft. **Site 1 of 2 in cluster I**

Relative: Higher
Actual: 3 ft.

SHWS:
Organization: Not reported
Supplemental Location: Honolulu Harbor Pier 39/40 at Waiakamilo 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

YOUNG BROTHERS, LTD. PIERS 39, 40 (Continued) **S108009312**

Potential Hazards And Controls: Hazard Undetermined
Organization: Not reported
Island: Oahu
Supplemental Location Text: Honolulu Harbor Pier 39/40 at Waiakamilo Rd
SDAR Environmental Interest Name: Young Brothers, Ltd. Piers 39, 40
HID Number: Not reported
Facility Registry Identifier: 110013774521
Lead Agency: HEER
Progran 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 Areawide 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

HI SPILLS:
Island: Oahu
Supplemental Loc. Text: Honolulu Harbor Pier 39/40 at Waiakamilo 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 Waiakamilo 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**

Units: Gallons
Activity Type: Response
Activity Lead: Curtis Martin
Assignment End Date: 2010-09-27 00:00:00
Result: SOSC NFA
File Under: Young Brothers, Ltd.

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 20110411-0726
HID Number: Not reported
Facility Registry Id: Not reported
Lead and Program: HEER EP&R
ER: None
Units: Trespassing at 1331 N Nimitz
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

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: 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
Units: Security Breach at 1331 N. Nimitz Hwy.
Substances: Security Breach
Less Or Greater Than: Not reported
Numerical Quantity: 0
Units: Not reported
Activity Type: Response
Activity Lead: Adam Teekell

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: record(s) in the EDR Site Report.

J38 **1950 HOMERULE STREET** **HI SHWS S113230429**
North **1950 HOMERULE STREET** **HI SPILLS N/A**
1/2-1 **HONOLULU, HI 96819**
0.743 mi.
3921 ft. **Site 1 of 2 in cluster J**

Relative:
Higher

Actual:
10 ft.

SHWS:
Organization: Not reported
Supplemental Location: Not reported
Island: Oahu
Environmental Interest: 1950 Homerule Street
HID Number: Not reported
Facility Registry Identifier: Not reported
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: Not reported
SDAR Environmental Interest Name: 1950 Homerule Street
HID Number: Not reported
Facility Registry Identifier: Not reported
Lead Agency: HEER
Progran 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 Areawide Contamination: Not reported
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: Not reported
Case Number: 20120917-1022
HID Number: Not reported
Facility Registry Id: Not reported

1950 HOMERULE STREET (Continued) **S113230429**

Lead and Program:	HEER EP&R
ER:	None
Units:	1950 Homerule
Substances:	Polycyclic Aromatic Hydrocarbons
Less Or Greater Than:	Not reported
Numerical Quantity:	0
Units:	Not reported
Activity Type:	Response
Activity Lead:	TC
Assignment End Date:	Not reported
Result:	SOSC NFA
File Under:	Not reported

K39 **2250 PAHOUNUI DRIVE** **HI SHWS** **S110061244**
NNW **2250 PAHOUNUI DR** **N/A**
1/2-1 **HONOLULU, HI**
0.774 mi.
4085 ft. **Site 1 of 2 in cluster K**

Relative:
Higher

Actual:
3 ft.

SHWS:

Organization:	Not reported
Supplemental Location:	Not reported
Island:	Oahu
Environmental Interest:	2250 Pahounui Drive
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:	2250 Pahounui Drive
HID Number:	Not reported
Facility Registry Identifier:	Not reported
Lead Agency:	HEER
Progran Name:	State
Potential Hazard And Controls:	Hazard Present
Priority:	Medium
Assessment:	Assessment Ongoing
Response:	Not reported
Nature of Contamination:	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.
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

I40 **1305 HART STREET** **HI SHWS** **S106815169**
NE **1305 HART ST** **HI SPILLS** **N/A**
1/2-1 **HONOLULU, HI 96814** **HI INST CONTROL**
0.787 mi.
4156 ft. **Site 2 of 2 in cluster I**

Relative:
Higher

Actual:
5 ft.

SHWS:

Organization:	Not reported
Supplemental Location:	1305 Hart St, 1301 and 1321 also?
Island:	Oahu
Environmental Interest:	1305 Hart Street
HID Number:	Not reported
Facility Registry Identifier:	Not reported
Lead Agency:	HEER
Program:	State
Project Manager:	Mark Sutterfield
Hazard Priority:	NFA
Potential Hazards And Controls:	Hazard Managed With Controls
Organization:	Not reported
Island:	Oahu
Supplemental Location Text:	1305 Hart St, 1301 and 1321 also?
SDAR Environmental Interest Name:	1305 Hart Street
HID Number:	Not reported
Facility Registry Identifier:	Not reported
Lead Agency:	HEER
Progran Name:	State
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:	Lead in soil
Use Restrictions:	Controls Required to Manage Contamination
Engineering Control:	Not reported
Description of Restrictions:	Not reported
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:	12/16/2004
Document Number:	2004-539-MS
Document Subject:	NFA 1305 Hart St Lead in surface below Tier I based on 95% UCL
Project Manager:	Mark Sutterfield
Contact Information:	(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:

Island:	Oahu
Supplemental Loc. Text:	1305 Hart St, 1301 and 1321 also?
Case Number:	20041004-1522
HID Number:	Not reported
Facility Registry Id:	Not reported
Lead and Program:	HEER EP&R
ER:	No
Units:	Hart Street Groundwater
Substances:	vinyl chloride,lead
Less Or Greater Than:	Not reported
Numerical Quantity:	Not reported
Units:	Unknown
Activity Type:	Response
Activity Lead:	Mike Cripps

1305 HART STREET (Continued) **S106815169**

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

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41 **PACIFIC POULTRY** **HI SHWS** **1006819073**
NNE **1804 KANAKANUI ST** **HI SPILLS** **N/A**
1/2-1 **HONOLULU, HI 96819**
0.788 mi.
4163 ft.

Relative:
Higher

Actual:
13 ft.

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
Program: State
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: Pacific Poultry
HID Number: Not reported
Facility Registry Identifier: 110013768397
Lead Agency: HEER
Progran Name: State
Potential Hazard And Controls: No Hazard
Priority: NFA
Assessment: Response Necessary
Response: Response Complete
Nature of Contamination: Found: Diesel.
Nature of Residual Contamination: Petroleum contaminated soil
Use Restrictions: No Hazard Present for Unrestricted Residential Use
Engineering Control: Not reported
Description of Restrictions: Not reported
Institutional Control: Not reported
Within Designated Areawide Contamination: Not reported
Site Closure Type: Letter of Completion - Unrestricted Residential Use
Document Date: 12/06/2004
Document Number: 2004-519-MS
Document Subject: NFA for diesel release from UST.
Project Manager: Mark Sutterfield
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:
Island: Oahu

PACIFIC POULTRY (Continued) **1006819073**

Supplemental Loc. Text: Not reported
Case Number: 20010202-0955
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.

J42 **YUE-FUNG KWAN CONSTRUCTION SITE** **HI SHWS** **S110061865**
North **2004-2008 REPUBLICAN ST** **HI SPILLS** **N/A**
1/2-1 **HONOLULU, HI 96819**
0.801 mi.
4228 ft. **Site 2 of 2 in cluster J**

Relative:
Higher

Actual:
10 ft.

SHWS:
Organization: Not reported
Supplemental Location: 822 Kawaiahao Street
Island: Oahu
Environmental Interest: Yue-Fung Kwan Construction Site
HID Number: Not reported
Facility Registry Identifier: Not reported
Lead Agency: HEER
Program: State
Project Manager: Kelton Otsuka
Hazard Priority: NFA
Potential Hazards And Controls: No Hazard
Organization: Not reported
Island: Oahu
Supplemental Location Text: 822 Kawaiahao Street
SDAR Environmental Interest Name: Yue-Fung Kwan Construction Site
HID Number: Not reported
Facility Registry Identifier: Not reported
Lead Agency: HEER
Progran Name: State
Potential Hazard And Controls: No Hazard
Priority: NFA
Assessment: Response Necessary
Response: Response Complete
Nature of Contamination: Found: Bunker Fuel Oil in Soil.
Nature of Residual Contamination: Not reported
Use Restrictions: No Hazard Present for Unrestricted Residential Use
Engineering Control: Not reported
Description of Restrictions: Not reported
Institutional Control: Not reported
Within Designated Areawide Contamination: Not reported
Site Closure Type: No Further Action Letter - Unrestricted Residential Use
Document Date: 06/20/2008
Document Number: 2008-414-KO
Document Subject: Underground Storage Tank Closure Report, 2004 & 2008 Republican St,

YUE-FUNG KWAN CONSTRUCTION SITE (Continued) **S110061865**

Honolulu HI 96813
Project Manager: Kelton Otsuka
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:
Island: Oahu
Supplemental Loc. Text: 822 Kawaiahao 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
Units: 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

L43 **DOMESTIC COMMERCIAL FISHING VILLAGE** **HI SHWS** **S111677154**
NE **1133 N NIMITZ HWY** **HI SPILLS** **N/A**
1/2-1 **HONOLULU, HI 96817** **HI ENG CONTROLS**
0.802 mi. **HI INST CONTROL**
4232 ft. **Site 1 of 3 in cluster L**

Relative:
Higher

Actual:
3 ft.

SHWS:
Organization: Not reported
Supplemental Location: Honolulu Harbor Pier 36-38
Island: Oahu
Environmental Interest: Domestic Commercial Fishing Village
HID Number: Not reported
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
Lead Agency: HEER
Progran Name: State
Potential Hazard And Controls: Hazard Managed With Controls
Priority: Low
Assessment: Response Necessary
Response: Response Ongoing
Nature of Contamination: Found: Methane in soil gas
Nature of Residual Contamination: Not reported
Use Restrictions: Controls Required to Manage Contamination
Engineering Control: Engineering Control Required

DOMESTIC COMMERCIAL FISHING VILLAGE (Continued) **S111677154**

Description of Restrictions: Limit Further Land Use - Site is restricted to industrial use only
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: 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: 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
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: 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
Substances: Light brown oil - Vegetable - Cooking oil ?
Less Or Greater Than: <
Numerical Quantity: 1
Units: 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

Island: Oahu
Supplemental Loc. Text: Honolulu Harbor Pier 36-38
Case Number: 20020805-1505
HID Number: Not reported
Facility Registry Id: 110013782344
Lead and Program: HEER EP&R
ER: Site Visit
Units: Air Monitoring at Hon. Hbr. FV
Substances: Rule out explosivity
Less Or Greater Than: Not reported

DOMESTIC COMMERCIAL FISHING VILLAGE (Continued) **S111677154**

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

DOMESTIC COMMERCIAL FISHING VILLAGE (Continued) **S111677154**

Supplemental Location: Honolulu Harbor Pier 36-38
Zip Suffix: Not reported
Island: Oahu
Institutional Control: Government - Hawaii Dept. of Health Letter Issued

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44
North
1/2-1
0.804 mi.
4244 ft.

Relative:
Higher

Actual:
3 ft.

HAWAIIAN BITUMULS & PAVING **HI SHWS** **U001235221**
248 SAND ISLAND ACCESS RD **HI LUST** **N/A**
HONOLULU, HI 96819 **HI UST**
HI INST CONTROL
HI AIRS

SHWS:
Organization: Not reported
Supplemental Location: Not reported
Island: Oahu
Environmental Interest: Hawaiian Bitumuls Paving & Precast Company-Sand Island Access Road
HID Number: HID006926919
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: HID006926919
Facility Registry Identifier: 110005284101
Lead Agency: HEER
Progran 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: 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: 9-100764
Facility Status: Site Cleanup Completed with EHMP
Facility Status Date: 01/28/2000
Release ID: 900050
Project Officer: To HEER

HAWAIIAN BITUMULS & PAVING (Continued) **U001235221**

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 Name: 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

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

HAWAIIAN BITUMULS & PAVING (Continued) **U001235221**

AIRS:
- Facility ID: 0540-01-C
- Island: Oahu
- Mailing Address: P.O. Box 579
- Locale: 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 Generator1.The 300 TPH asphalt plant encompasses the following equipment and associated appurtenances:a.One (1) CMI Drum-Mixer, model PTD-300 with ESII100 Burner;b.One (1) 1,322 bhp Cummins QST30-G2 diesel engine generator, c.One (1) Roto-Aire Baghouse servicing the Drum-Mixer;d.Two (2) CMI Hot Oil Heaters, model CEI-2000;e.One (1) CMI 20-Ton Capacity Portable Recycle Bin, model PRB-120;f.One (1) 300 TPH Reclaimed Asphalt Plant (RAP) roller crusher connected to the portable recycling bin;g.4' x 10' Scalping Screen;h.Aggregate Bins;i.Asphalt Storage Silo; andj.Various conveyor belts.

L45 **CHEVRON KAPALAMA TERMINAL** **HI SHWS** **S108008763**
ENE **1105 N NIMITZ HWY** **HI SPILLS** **N/A**
1/2-1 **HONOLULU, HI 96817** **HI INST CONTROL**
0.807 mi.
4259 ft. **Site 2 of 3 in cluster L**

Relative: Higher

Actual: 3 ft.

SHWS:
- Organization: Not reported
- Supplemental Location: Honolulu Harbor Pier 36
- Island: Oahu
- Environmental Interest: Chevron Kapalama Northeast Parcel
- HID Number: Not reported
- Facility Registry Identifier: 110013779731
- Lead Agency: HEER
- Program: State
- 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
- SDAR Environmental Interest Name: Chevron Kapalama Northeast Parcel
- HID Number: Not reported
- Facility Registry Identifier: 110013779731
- Lead Agency: HEER
- Progran 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 Areawide Contamination: Honolulu Harbor Iwilei Unit

CHEVRON KAPALAMA TERMINAL (Continued) **S108008763**

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
Organization:	Not reported
Supplemental Location:	Kapalama
Island:	Oahu
Environmental Interest:	Chevron Kapalama Northwest Parcel
HID Number:	Not reported
Facility Registry Identifier:	110013779722
Lead Agency:	HEER
Program:	State
Project Manager:	Jordan Nakayama
Hazard Priority:	Low
Potential Hazards And Controls:	Hazard Present
Organization:	Not reported
Island:	Oahu
Supplemental Location Text:	Kapalama
SDAR Environmental Interest Name:	Chevron Kapalama Northwest Parcel
HID Number:	Not reported
Facility Registry Identifier:	110013779722
Lead Agency:	HEER
Progran Name:	State
Potential Hazard And Controls:	Hazard Present
Priority:	Low
Assessment:	Response Necessary
Response:	Response Ongoing
Nature of Contamination:	Found: Additional assessment for Petroleum Products in Soil underway. Ongoing GW monitoring for this site for Petroleum. No contaminants in groundwater above EALs in 2008.
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 Iwilei 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
Organization:	Not reported
Supplemental Location:	Honolulu Harbor Pier 37
Island:	Oahu
Environmental Interest:	Chevron Kapalama Southwest Parcel
HID Number:	Not reported
Facility Registry Identifier:	110013779713
Lead Agency:	HEER
Program:	State
Project Manager:	Jordan Nakayama
Hazard Priority:	NFA
Potential Hazards And Controls:	Hazard Managed With Controls

CHEVRON KAPALAMA TERMINAL (Continued) **S108008763**

Organization:	Not reported
Island:	Oahu
Supplemental Location Text:	Honolulu Harbor Pier 37
SDAR Environmental Interest Name:	Chevron Kapalama Southwest Parcel
HID Number:	Not reported
Facility Registry Identifier:	110013779713
Lead Agency:	HEER
Progran 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:	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 ltr Chevron2-Lau dated August 26, 1993
Use Restrictions:	Controls Required to Manage Contamination
Engineering Control:	Not reported
Description of Restrictions:	Limit Further Land Use - Site is restricted to industrial use only
Institutional Control:	Government - Hawaii Dept. of Health Letter Issued
Within Designated Areawide Contamination:	Honolulu Harbor Iwilei Unit
Site Closure Type:	No Further Action Letter - Restricted Use
Document Date:	08/26/1993
Document Number:	014-
Document Subject:	Chevron Oil Company's Former Kapalama Fuel Terminal, Southwest Parcel, Pier 37, Honolulu
Project Manager:	Jordan Nakayama
Contact Information:	(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814
Organization:	Not reported
Supplemental Location:	Not reported
Island:	Oahu
Environmental Interest:	Chevron Kapalama Terminal
HID Number:	Not reported
Facility Registry Identifier:	110005730842
Lead Agency:	HEER
Program:	State
Project Manager:	Jordan Nakayama
Hazard Priority:	Medium
Potential Hazards And Controls:	Hazard Present
Organization:	Not reported
Island:	Oahu
Supplemental Location Text:	Not reported
SDAR Environmental Interest Name:	Chevron Kapalama Terminal
HID Number:	Not reported
Facility Registry Identifier:	110005730842
Lead Agency:	HEER
Progran 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

CHEVRON KAPALAMA TERMINAL (Continued) **S108008763**

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: Jordan Nakayama
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

HI SPILLS:
Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 19930315
HID Number: Not reported
Facility Registry Id: 110005730842
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 **HART STREET WWPS** **HI SHWS U003154453**
ENE **1031 N NIMITZ HWY** **HI UIC N/A**
1/2-1 **HONOLULU, HI 96817**
0.809 mi.
4272 ft. **Site 1 of 2 in cluster M**

Relative:
Higher

Actual:
3 ft.

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
Progran 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.
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 Iwilei Unit
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

UIC:
UIC Permit Number: UO-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 Ualena St. #902,Hon.HI 96819
Facility Owner: Robison Construction, Inc.
Owner Address: 3049 Ualena St,#902,Hon. HI 96819

HART STREET WWPS (Continued) **U003154453**

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

N47 **HAWAII STEVEDORES** **HI SHWS S106817380**
ENE **965 N NIMITZ HWY** **HI SPILLS N/A**
1/2-1 **HONOLULU, HI 96817** **HI ENG CONTROLS**
0.812 mi.
4286 ft. **Site 1 of 2 in cluster N**

Relative:
Higher

Actual:
3 ft.

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
Progran 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.
Nature of Residual Contamination:	Not reported
Use Restrictions:	Controls Required to Manage Contamination
Engineering Control:	Engineering Control Required
Description of Restrictions:	Prohibit Any Activity That May Disturb the Integrity of the Capping System and prohibit the disturbance of soil.
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:	Steve Mow

HAWAII STEVEDORES (Continued) **S106817380**

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
Progran 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.
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 Iwilei Unit
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

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) **S106817380**

ENG CONTROLS:
- Supplemental Location Text: Honolulu Harbor Pier 35
- Zip Suffix: Not reported
- Island: Oahu
- Potential Hazards And Controls: Hazard Managed With Controls
- Engineering Control: Engineering Control Required

M48 **GTE HAWAIIAN TEL - CONTAMINATED SOIL** **HI SHWS** **S106817210**
ENE **ALAKAWA ST & NIMITZ HWY** **HI SPILLS** **N/A**
1/2-1 **HONOLULU, HI 96817** **HI ENG CONTROLS**
0.813 mi. **HI INST CONTROL**
4294 ft. **Site 2 of 2 in cluster M**

Relative: Higher

Actual: 3 ft.

SHWS:
- Organization: Not reported
- Supplemental Location: Not reported
- Island: Oahu
- Environmental Interest: GTE Hawaiian Tel - Contaminated Soil
- HID Number: Not reported
- Facility Registry Identifier: 110013789524
- Lead Agency: HEER
- Program: State
- Project Manager: Anna Fernandez
- 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: GTE Hawaiian Tel - Contaminated Soil
- HID Number: Not reported
- Facility Registry Identifier: 110013789524
- Lead Agency: HEER
- Progran Name: State
- Potential Hazard And Controls: Hazard Managed With Controls
- Priority: Low
- Assessment: Response Necessary
- Response: Response Ongoing
- Nature of Contamination: Found: Subsurface petroleum in soil
- Nature of Residual Contamination: PCS was discovered here when utility lines were installed. PCS remains there and will need to be managed if daylighted
- 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: No Further Action Letter - Restricted Use
- Document Date: 09/25/2007
- 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: Not reported
- Case Number: 20000309-0930
- HID Number: Not reported

GTE HAWAIIAN TEL - CONTAMINATED SOIL (Continued) **S106817210**

- Facility Registry Id: 110013789524
- Lead and Program: HEER EP&R
- ER: No
- Units: GTE Hawaiian - Contaminated Soil
- Substances: Petroleum
- 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: Verizon Hawaii

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

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L49 **MCCABE, HAMILTON, & RENNY COMPANY, LTD** **HI SHWS** **1006818946**
NE **1130 N NIMITZ HWY** **HI SPILLS** **N/A**
1/2-1 **HONOLULU, HI 96817**
0.814 mi.
4296 ft. **Site 3 of 3 in cluster L**

Relative: Higher

Actual: 3 ft.

SHWS:
- Organization: Not reported
- Supplemental Location: Suite A265
- Island: Oahu
- Environmental Interest: McCabe, Hamilton, & Renny Company, Ltd.
- HID Number: Not reported
- Facility Registry Identifier: 110013767030
- Lead Agency: HEER
- Program: State
- Project Manager: Steve Mow
- Hazard Priority: Low
- Potential Hazards And Controls: Hazard Undetermined
- Organization: Not reported
- Island: Oahu
- Supplemental Location Text: Suite A265
- SDAR Environmental Interest Name: McCabe, Hamilton, & Renny Company, Ltd.
- HID Number: Not reported
- Facility Registry Identifier: 110013767030
- Lead Agency: HEER
- Progran Name: State
- Potential Hazard And Controls: Hazard Undetermined
- Priority: Low
- Assessment: Response Necessary

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:	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:	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:	19981204-1344
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.

N50 **CHEVRON HONOLULU TRANSPORTATION TERMINAL** **HI SHWS** **U003154454**
ENE **933 N NIMITZ HWY** **HI ENG CONTROLS** **N/A**
1/2-1 **HONOLULU, HI 96817** **HI Financial Assurance**
0.816 mi.
4311 ft. **Site 2 of 2 in cluster N**

Relative:
Higher

Actual:
3 ft.

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
Progran 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.
Nature of Residual Contamination:	Not reported
Use Restrictions:	Controls Required to Manage Contamination
Engineering Control:	Engineering Control Required
Description of Restrictions:	Prohibit Any Activity That May Disturb the Integrity of the Capping System and prohibit disturbance of the soil.
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:	Jordan Nakayama
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

HI Financial Assurance:

Alt Facility ID:	9-100242
Tank Id:	R-1
Tank Status:	Permanently Out of Use
FRTYPE:	Other
Expiration Date:	Not reported

O51
ENE
1/2-1
0.822 mi.
4338 ft.

861-869 NORTH NIMITZ HIGHWAY
861-869 N NIMITZ HWY
HONOLULU, HI 96817

HI SHWS **S108859941**
HI ENG CONTROLS **N/A**
HI INST CONTROL

Site 1 of 3 in cluster O

Relative:
Higher

Actual:
3 ft.

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
Progran Name:	State
Potential Hazard And Controls:	Hazard Managed With Controls
Priority:	NFA
Assessment:	Response Necessary
Response:	Response Complete
Nature of Contamination:	Found: Petroleum and related constituents
Nature of Residual Contamination:	Some conatminants remain just above Tier 1 levels including, ethylbenzene in soil near one UST removal and acenapthene and fluoranthense in groundwater near hydraulic lift removal site, according to 1997 NFA ltr.
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
Within Designated Areawide Contamination:	Honolulu Harbor Iwilei Unit
Site Closure Type:	No Further Action Letter - Restricted Use
Document Date:	07/13/2005
Document Number:	Not reported
Document Subject:	Not reported
Project Manager:	Eric Sadoyama
Contact Information:	(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

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

861-869 NORTH NIMITZ HIGHWAY (Continued) **S108859941**

Zip Suffix:	Not reported
Island:	Oahu
Institutional Control:	Government - Hawaii Dept. of Health Letter Issued

O52
ENE
1/2-1
0.823 mi.
4347 ft.

HAWAIIAN ELECTRIC COMPANY (HECO) - IWILEI TANK YARD
855 N NIMITZ HWY
HONOLULU, HI 96818

HI SHWS **U001235311**
HI SPILLS **N/A**
HI ENG CONTROLS
HI INST CONTROL

Site 2 of 3 in cluster O

Relative:
Higher

Actual:
3 ft.

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
Progran Name:	State
Potential Hazard And Controls:	Hazard Managed With Controls
Priority:	Low
Assessment:	Response Necessary
Response:	Response Ongoing
Nature of Contamination:	Found: Petroleum in soil and groundwater
Nature of Residual Contamination:	Not reported
Use Restrictions:	Controls Required to Manage Contamination
Engineering Control:	Engineering Control Required
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 Iwilei Unit
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

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**

Units: HECO Tank Fuel Leak
Substances: Unknown
Less Or Greater Than: Not reported
Numerical Quantity: 400
Units: 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: Not reported
Activity Type: Response
Activity Lead: Curtis Martin
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: Not reported
Activity Type: Response
Activity Lead: Curtis Martin
Assignment End Date: 2006-05-31 00:00:00
Result: Refer to SDAR
File Under: Hawaiian Electric Co., Inc. (HECO)

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

HAWAIIAN ELECTRIC COMPANY (HECO) - IWILEI TANK YARD (Continued) **U001235311**

Supplemental Location: Not reported
Zip Suffix: Not reported
Island: Oahu
Institutional Control: Government - Hawaii Dept. of Health Letter Issued

O53 **WEYERHAEUSER** **HI SHWS** **S106821137**
ENE **900 N NIMITZ HWY** **HI SPILLS** **N/A**
1/2-1 **HONOLULU, HI 96817**
0.832 mi.
4393 ft. **Site 3 of 3 in cluster O**

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: 110001760390
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: 110001760390
Lead Agency: HEER
Progran 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
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 Iwilei 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: 110001760390
Lead and Program: HEER EP&R
ER: Not reported

WEYERHAEUSER (Continued) **S106821137**

Units: Weyerhauser, 900 North Nimitz, Honolulu, Oahu, HI
Substances: Antifreeze
Less Or Greater Than: Not reported
Numerical Quantity: 4
Units: Gallons
Activity Type: Response
Activity Lead: Not reported
Assignment End Date: Not reported
Result: SOSC 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: SOSC NFA
File Under: Weyerhaeuser

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 19960809-0930
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: SOSC NFA
File Under: Weyerhaeuser

K54 **218 MOHONUA PLACE** **HI SHWS** **S110061243**
North **218 MOHONUA PL** **N/A**
1/2-1 **HONOLULU, HI**
0.832 mi.
4393 ft. **Site 2 of 2 in cluster K**

Relative: SHWS:
Higher
Organization: Not reported
Supplemental Location: Not reported
Actual: Island: Oahu
3 ft. Environmental Interest: 218 Mohonua Place

218 MOHONUA PLACE (Continued) **S110061243**

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: 218 Mohonua Place
HID Number: Not reported
Facility Registry Identifier: Not reported
Lead Agency: HEER
Progran Name: State
Potential Hazard And Controls: Hazard Present
Priority: Medium
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 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

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55 **CHEVRON HONOLULU TERMINAL MARINE** **HI SHWS** **U001235369**
East **777 N NIMITZ HWY** **HI SPILLS** **N/A**
1/2-1 **HONOLULU, HI 96817**
0.841 mi.
4438 ft.

Relative: SHWS:
Higher
Organization: Not reported
Supplemental Location: Not reported
Actual: Island: Oahu
3 ft. Environmental Interest: Chevron Honolulu Terminal Marine
HID Number: Not reported
Facility Registry Identifier: 110000486457
Lead Agency: HEER
Program: State
Project Manager: Steve Mow
Hazard Priority: Medium
Potential Hazards And Controls: Hazard Present
Organization: Not reported
Island: Oahu
Supplemental Location Text: Not reported
SDAR Environmental Interest Name: Chevron Honolulu Terminal Marine

CHEVRON HONOLULU TERMINAL MARINE (Continued) **U001235369**

HID Number:	Not reported
Facility Registry Identifier:	110000486457
Lead Agency:	HEER
Progran Name:	State
Potential Hazard And Controls:	Hazard Present
Priority:	Medium
Assessment:	Response Necessary
Response:	Response Ongoing
Nature of Contamination:	Found: Subsurface petroleum contaminationin 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 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:	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:	Not reported
Activity Type:	Response
Activity Lead:	TC
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:	Not reported
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:	SOSC NFA
File Under:	Chevron Honolulu Terminal Marine

CHEVRON HONOLULU TERMINAL MARINE (Continued) **U001235369**

Click this hyperlink while viewing on your computer to access
8 additional HI SPILLS: record(s) in the EDR Site Report.

56
ESE
1/2-1
0.842 mi.
4444 ft.

SAND ISLAND BUSINESS ASSOCIATION LOT 023 **HI SHWS** **1006820004**
1020 ULUPONO ST **N/A**
HONOLULU, HI 96819

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:	Not reported
Program:	State
Project Manager:	Laura Young
Hazard Priority:	NFA
Potential Hazards And Controls:	Hazard Undetermined
Organization:	Not reported
Island:	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:	Not reported
Progran Name:	State
Potential Hazard And Controls:	Hazard Undetermined
Priority:	NFA
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 Sand Island Unit
Site Closure Type:	No Further Action - Type Undetermined
Document Date:	07/08/2002
Document Number:	Not reported
Document Subject:	Not reported
Project Manager:	Laura Young
Contact Information:	(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

P57
East
1/2-1
0.856 mi.
4519 ft.

PAULEY PETROLEUM **HI SHWS** **S108009116**
795 N NIMITZ HWY **HI SPILLS** **N/A**
HONOLULU, HI 96817 **HI ENG CONTROLS**
HI INST CONTROL

Site 1 of 3 in cluster P

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
Program:	State
Project Manager:	Clarence Callahan
Hazard Priority:	NFA
Potential Hazards And Controls:	Hazard Managed With Controls
Organization:	Not reported
Island:	Oahu
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
Progran 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.
Nature of Residual Contamination:	Not reported
Use Restrictions:	Controls Required to Manage Contamination
Engineering Control:	Engineering Control Required
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 Iwilei Unit
Site Closure Type:	No Further Action Letter - Restricted Use
Document Date:	11/18/2005
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

HI SPILLS:

Island:	Oahu
Supplemental Loc. Text:	Honolulu Harbor Pier 32/33
Case Number:	19990421-0805
HID Number:	Not reported
Facility Registry Id:	110013773522
Lead and Program:	HEER EP&R
ER:	No
Units:	Possible Asbestos Release at Pier 31
Substances:	Asbestos (Pipe insulation)
Less Or Greater Than:	Not reported
Numerical Quantity:	Not reported
Units:	Not reported

PAULEY PETROLEUM (Continued) **S108009116**

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: 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
Units: Petroleum contamination found in trenches
Substances: 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

Island: Oahu
Supplemental Loc. Text: Honolulu Harbor Pier 32/33
Case Number: 20001017-1530
HID Number: Not reported
Facility Registry Id: 110013773522
Lead and Program: HEER EP&R
ER: Site Visit
Units: Pauley Petroleum(Former)/DOT
Substances: Oil
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: 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

P58 **EQUILON ENTERPRISES LLC HONOLULU TERMINAL** **HI SHWS** **S115488694**
East **789 N NIMITZ HWY** **N/A**
1/2-1 **HONOLULU, HI 96817**
0.861 mi.
4548 ft. **Site 2 of 3 in cluster P**

Relative:
Higher

Actual:
3 ft.

SHWS:
Organization: Not reported
Supplemental Location: Not reported
Island: Oahu
Environmental Interest: Equilon Enterprises LLC Honolulu Terminal
HID Number: Not reported
Facility Registry Identifier: 110000486475
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
Progran 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.
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 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

P59 **775 NORTH NIMITZ HIGHWAY** **HI SHWS** **S110061247**
East **775 N NIMITZ HWY** **HI ENG CONTROLS** **N/A**
1/2-1 **HONOLULU, HI** **HI INST CONTROL**
0.880 mi.
4644 ft. **Site 3 of 3 in cluster P**

Relative:
Higher

Actual:
3 ft.

SHWS:
Organization: Not reported
Supplemental Location: Not reported
Island: Oahu
Environmental Interest: 775 North Nimitz Highway
HID Number: Not reported
Facility Registry Identifier: Not reported
Lead Agency: HEER
Program: State
Project Manager: Steve Mow

775 NORTH NIMITZ HIGHWAY (Continued) **S110061247**

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:	775 North Nimitz Highway
HID Number:	Not reported
Facility Registry Identifier:	Not reported
Lead Agency:	HEER
Progran Name:	State
Potential Hazard And Controls:	Hazard Managed With Controls
Priority:	Medium
Assessment:	Response Necessary
Response:	Response Ongoing
Nature of Contamination:	Not reported
Nature of Residual 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:	Not reported
Project Manager:	Steve Mow
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

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Q60 **BEST BUY** **HI SHWS S108008729**
ENE **ALAKAWA ST & NIMITZ HWY** **HI SPILLS N/A**
1/2-1 **HONOLULU, HI 96817**
0.904 mi.
4774 ft. **Site 1 of 2 in cluster Q**

Relative:
Higher

Actual:
3 ft.

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

BEST BUY (Continued) **S108008729**

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
Lead Agency:	Not reported
Progran Name:	State
Potential Hazard And Controls:	No Hazard
Priority:	NFA
Assessment:	Response Necessary
Response:	Response Complete
Nature of Contamination:	Found: Hydrocarbon
Nature of Residual Contamination:	No (hydrocarbon) contamination left on site 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 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

HI SPILLS:

Island:	Oahu
Supplemental Loc. Text:	Not reported
Case Number:	20041029-1530
HID Number:	Not reported
Facility Registry Id:	Not reported
Lead and Program:	HEER EP&R
ER:	Referred
Units:	Best Buy Site
Substances:	Petroleum
Less Or Greater Than:	<
Numerical Quantity:	Not reported
Units:	Unknown
Activity Type:	Response
Activity Lead:	Liz Galvez
Assignment End Date:	2004-11-10 00:00:00
Result:	Refer to ISST
File Under:	Best Buy

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

HI SHWS **S106818797**
HI SPILLS **N/A**
HI ENG CONTROLS
HI INST CONTROL

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 Sadoyama
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:	Longs Drug Stores Warehouse
HID Number:	Not reported
Facility Registry Identifier:	110013771203
Lead Agency:	HEER
Progran Name:	State
Potential Hazard And Controls:	Hazard Managed With Controls
Priority:	Low
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:	Engineering Control Required
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:	01/30/2014
Document Number:	2014-055-ES
Document Subject:	No Further Action with Institutional Controls Determination for Longs Drug Stores Warehouse
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:	19950620
HID Number:	Not reported
Facility Registry Id:	110013771203
Lead and Program:	HEER EP&R
ER:	Not reported
Units:	Longs Drug Store Warehouse
Substances:	Petroleum (diesel with oil)
Less Or Greater Than:	Not reported
Numerical Quantity:	Not reported
Units:	Not reported
Activity Type:	Response

LONGS DRUG STORES WAREHOUSE (Continued) **S106818797**

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

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S62
East
1/2-1
0.914 mi.
4825 ft.

Relative:
Higher

Actual:
3 ft.

755 N NIMITZ HWY
755 N NIMITZ HWY
HONOLULU, HI

Site 1 of 3 in cluster S

HI SHWS **S110061246**
HI SPILLS **N/A**
HI ENG CONTROLS
HI INST CONTROL

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
SDAR Environmental Interest Name:	755 North Nimitz Highway
HID Number:	Not reported
Facility Registry Identifier:	Not reported
Lead Agency:	HEER
Progran Name:	State
Potential Hazard And Controls:	Hazard Managed With Controls
Priority:	Medium
Assessment:	Response Necessary
Response:	Response Ongoing
Nature of Contamination:	Found: petroleum in soil
Nature of Residual 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

755 N NIMITZ HWY (Continued) **S110061246**

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: Akamai Car Rental
Case Number: 20081118-0855
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
Units: Not reported
Activity Type: Response
Activity Lead: Anna Fernandez
Assignment End Date: Not reported
Result: Not reported
File Under: Kristina S Quiton Trust

ENG CONTROLS:
Supplemental Location Text: Akamai Car Rental
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: Akamai Car Rental
Zip Suffix: Not reported
Island: Oahu
Institutional Control: Government - Hawaii Dept. of Health Letter Issued

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R63 **HAGADONE PRINTING COMPANY SAND ISLAND** **HI SHWS** **S106817239**
North **2278 HOONEE PL** **HI INST CONTROL** **N/A**
1/2-1 **HONOLULU, HI 96819**
0.915 mi.
4832 ft. **Site 2 of 2 in cluster R**

Relative:
Higher

Actual:
3 ft.

SHWS:
Organization: Not reported
Supplemental Location: Not reported
Island: Oahu
Environmental Interest: Hagadone Printing Company Sand Island
HID Number: Not reported
Facility Registry Identifier: 110013790139
Lead Agency: HEER
Program: State
Project Manager: Eric Sadoyama
Hazard Priority: NFA

HAGADONE PRINTING COMPANY SAND ISLAND (Continued) **S106817239**

Potential Hazards And Controls: Hazard Managed With Controls
Organization: Not reported
Island: Oahu
Supplemental Location Text: Not reported
SDAR Environmental Interest Name: Hagadone Printing Company Sand Island
HID Number: Not reported
Facility Registry Identifier: 110013790139
Lead Agency: HEER
Progran 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: 2004-099-ES
Document Subject: Former Hagadone Printing Company site, 2278 Ho'one'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

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T64 **GENERAL TIRE** **HI SHWS** **S106817180**
NE **505 WAIAKAMILO RD** **HI SPILLS** **N/A**
1/2-1 **HONOLULU, HI 96817**
0.933 mi.
4927 ft. **Site 1 of 2 in cluster T**

Relative:
Higher

Actual:
10 ft.

SHWS:
Organization: Not reported
Supplemental Location: Not reported
Island: Oahu
Environmental Interest: Former General Tire Petroleum Contamination
HID Number: Not reported
Facility Registry Identifier: 110005726884
Lead Agency: HEER
Program: State
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: Former General Tire Petroleum Contamination
HID Number: Not reported

GENERAL TIRE (Continued) **S106817180**

Facility Registry Identifier:	110005726884
Lead Agency:	HEER
Progran Name:	State
Potential Hazard And Controls:	No Hazard
Priority:	NFA
Assessment:	Response Necessary
Response:	Response Complete
Nature of Contamination:	Not reported
Nature of Residual Contamination:	Petroleum contaminated soil detected at concentrations below HDOH 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 Areawide Contamination:	Not reported
Site Closure Type:	No Further Action Letter - Unrestricted Residential Use
Document Date:	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 **BHP PIER 29** **HI SHWS** **S106816192**
East **739 N NIMITZ HWY** **N/A**
1/2-1 **HONOLULU, HI 96817**
0.938 mi.
4955 ft. **Site 2 of 3 in cluster S**

Relative:
Higher

Actual:
3 ft.

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:	Hazard Present
Organization:	Not reported
Island:	Oahu
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
Progran Name:	State
Potential Hazard And Controls:	Hazard Present
Priority:	NFA
Assessment:	Response Necessary
Response:	Response Complete
Nature of Contamination:	Presumed: Unknown
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 Iwilei 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 **1385 COLBURN STREET** **HI SHWS** **S115488666**
NE **1385 COLBURN ST** **HI SPILLS** **N/A**
1/2-1 **KAPALAMA, HI 96817**
0.944 mi.
4982 ft. **Site 2 of 2 in cluster T**

Relative:
Higher

Actual:
10 ft.

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
Progran 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) **S115488666**

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: Not reported
Project Manager: Jordan Nakayama
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

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: Benzo(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 Tire

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 Tire

Q67 **HOME DEPOT** **HI SHWS** **S105887731**
ENE **421 ALAKAWA ST** **HI ENG CONTROLS** **N/A**
1/2-1 **HONOLULU, HI 96817** **HI INST CONTROL**
0.955 mi. **HI VCP**
5043 ft. **Site 2 of 2 in cluster Q**

Relative:
Higher

Actual:
3 ft.

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 Sutterfield
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
Progran 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.
Nature of Residual Contamination: Methane, BTEX, PAHs, and TPH in soil and groundwater.
Use Restrictions: Controls Required to Manage Contamination
Engineering Control: Engineering Control Required
Description of Restrictions: 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 Iwilei Unit
Site Closure Type: Letter of Completion - Restricted Use
Document Date: 09/03/1999
Document Number: Not reported
Document Subject: VRP LOC with Conditions
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

HOME DEPOT (Continued) **S105887731**

VCP:
- Program: Voluntary Response Program
- Zip Suffix: Not reported
- Supplemental Location: Not reported
- Island: Oahu

S68 **700 N NIMITZ IDPP RELEASE** **HI SHWS** **S110061245**
East **700 N NIMITZ HWY** **HI SPILLS** **N/A**
1/2-1 **HONOLULU, HI** **HI ENG CONTROLS**
0.955 mi. **HI INST CONTROL**
5044 ft. **Site 3 of 3 in cluster S**

Relative: Higher

Actual: 3 ft.

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: 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: TMK 1-1-5-013-003
- SDAR Environmental Interest Name: 700 N Nimitz IDPP Release
- HID Number: Not reported
- Facility Registry Identifier: Not reported
- Lead Agency: HEER
- Progran Name: State
- Potential Hazard And Controls: Hazard Managed With Controls
- Priority: Medium
- Assessment: Response Necessary
- Response: Response Ongoing
- Nature of Contamination: Not reported
- Nature of Residual 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: 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: TMK 1-1-5-013-003
- Case Number: 20081204-1001
- HID Number: Not reported
- Facility Registry Id: Not reported
- Lead and Program: HEER EP&R

700 N NIMITZ IDPP RELEASE (Continued) **S110061245**

- ER: None
- Units: 700 N Nimitz IDPP Release
- Substances: Oil
- Less Or Greater Than: Not reported
- Numerical Quantity: 0
- Units: Not reported
- Activity Type: Response
- Activity Lead: Anna Fernandez
- Assignment End Date: Not reported
- Result: Not reported
- File Under: Harry and Jeanette Weinberg Foundation

ENG CONTROLS:
- Supplemental Location Text: TMK 1-1-5-013-003
- 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: TMK 1-1-5-013-003
- Zip Suffix: Not reported
- Island: Oahu
- Institutional Control: Government - Hawaii Dept. of Health Letter Issued

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69 **KEEHI SMALL BOAT HARBOR** **HI SHWS** **1006819167**
SE **4 SAND ISLAND RD** **HI SPILLS** **N/A**
1/2-1 **HONOLULU, HI 96819**
0.956 mi.
5046 ft.

Relative: Higher

Actual: 3 ft.

SHWS:
- Organization: Not reported
- Supplemental Location: Keehi Lagoon
- Island: Oahu
- Environmental Interest: Honolulu Marine Small Boat Shipyard at Keehi Lagoon
- HID Number: Not reported
- Facility Registry Identifier: Not reported
- Lead Agency: HEER
- Program: State
- Project Manager: Paul Chong
- Hazard Priority: Low
- Potential Hazards And Controls: Hazard Undetermined
- Organization: Not reported
- Island: Oahu
- Supplemental Location Text: Keehi Lagoon
- SDAR Environmental Interest Name: Honolulu Marine Small Boat Shipyard at Keehi Lagoon
- HID Number: Not reported
- Facility Registry Identifier: Not reported
- Lead Agency: HEER
- Progran Name: State
- Potential Hazard And Controls: Hazard Undetermined
- Priority: Low
- Assessment: Assessment Ongoing
- Response: Not reported
- Nature of Contamination: Not reported

KEEHI SMALL BOAT HARBOR (Continued) **1006819167**

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:	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:	20080720-1230
HID Number:	Not reported
Facility Registry Id:	110013769396
Lead and Program:	HEER EP&R
ER:	None
Units:	Boat Sank - Gasoline Release
Substances:	Gasoline, Unleaded
Less Or Greater Than:	Not reported
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:	SOSC NFA
File Under:	State of Hawaii, Department of Transportation, Harbors Division

U70 **BHP GASCO** **EDR MGP** **1008409005**
ENE **432 PACIFIC STREET** **N/A**
1/2-1 **HONOLULU, HI 96817**
0.984 mi.
5198 ft. **Site 1 of 4 in cluster U**

Relative:
Higher

Actual:
3 ft.

Manufactured Gas Plants:
Alternate Name:HONOLULU GAS CO LTD. OPERATED FROM 1905-1974

U71 **CONOCOPHILLIPS CO HONOLULU TERMINAL** **RCRA NonGen / NLR** **1000167494**
ENE **411 PACIFIC STREET** **FINDS** **HID981652696**
1/2-1 **HONOLULU, HI 96817** **HI SHWS**
0.986 mi. **HI UST**
5205 ft. **Site 2 of 4 in cluster U** **HI SPILLS**
HI VCP

Relative:
Higher **HI Financial Assurance**

Actual:
3 ft.

RCRA NonGen / NLR:

Date form received by agency:	02/16/1994
Facility name:	UNOCAL 76 HONOLULU LRNG CTR
Site name:	UNION OIL TERMINAL
Facility address:	411 PACIFIC ST HONOLULU, HI 968170000
EPA ID:	HID981652696
Mailing address:	PO BOX 659 HONOLULU, HI 968090000
Contact:	PATRICK J IONA
Contact address:	Not reported 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

Owner/Operator Summary:

Owner/operator name:	UNION OIL CO
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
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 NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

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
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: 08/02/1993
Site name: UNOCAL 76 HONOLULU LRNG CTR
Classification: Not a generator, verified

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 07/09/1996
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

FINDS:

Registry ID: 110009359826

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 Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

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 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.

SPCC

CONOCOPHILLIPS CO HONOLULU TERMINAL (Continued) **1000167494**

Registry ID: 110046154040

Environmental Interest/Information System
STATE MASTER

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:	Not reported
Island:	Oahu
Supplemental Location Text:	Not reported
SDAR Environmental Interest Name:	TOSCO Corporation-Honolulu Terminal #0282
HID Number:	Not reported
Facility Registry Identifier:	110000495848
Lead Agency:	HEER
Progran 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
Nature of Residual Contamination:	Not reported
Use Restrictions:	Controls Required to Manage Contamination
Engineering Control:	Not reported
Description of Restrictions:	Prohibit Any Activity That May Disturb the Integrity of the Capping or Monitoring System
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:	Steve Mow
Contact Information:	(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 Name:	Not reported
Tank ID:	R-4-1
Date Installed:	04/15/1982

CONOCOPHILLIPS CO HONOLULU TERMINAL (Continued) **1000167494**

Tank Status:	**Permanently Out of Use**
Date Closed:	03/07/1997
Tank Capacity:	550
Substance:	Used Oil

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:	SOSC 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:	SOSC 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-Diddley 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

CONOCOPHILLIPS CO HONOLULU TERMINAL (Continued) **1000167494**

Result: SOSC NFA
File Under: Phillips Petroleum Company

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 19971110-0947
HID Number: Not reported
Facility Registry Id: 110000495848
Lead and Program: HEER EP&R
ER: No
Units: 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
Units: Diesel Fuel Release
Substances: Diesel Fuel
Less Or Greater Than: Not reported
Numerical Quantity: 0.25
Units: Gallons
Activity Type: Response
Activity Lead: Liz Galvez
Assignment End Date: Not reported
Result: Not reported
File Under: Phillips Petroleum Company

Click this hyperlink while viewing on your computer to access
8 additional HI SPILLS: record(s) in the EDR Site Report.

VCP:
Program: Voluntary Response Program
Zip Suffix: Not reported
Supplemental Location: Not reported
Island: Oahu

HI Financial Assurance:
Alt Facility ID: 9-100108
Tank Id: R-4-1
Tank Status: Permanently Out of Use
FRTYPE: Other
Expiration Date: Not reported

Alt Facility ID: 9-100108

CONOCOPHILLIPS CO HONOLULU TERMINAL (Continued) **1000167494**

Tank Id: R-4-1
Tank Status: Permanently Out of Use
FRTYPE: Self Insured
Expiration Date: Not reported

V72 **MOANA PAA KAI** **RCRA-CESQG** **1000146699**
East **705 N NIMITZ HWY** **HI SHWS** **HID982411357**
1/2-1 **HONOLULU, HI 96817** **HI SPILLS**
0.988 mi.
5216 ft. **Site 1 of 2 in cluster V**

Relative:
Higher

Actual:
3 ft.

RCRA-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
Contact address: PO BOX 3288
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
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

MOANA PAA KAI (Continued) **1000146699**

HONOLULU, HI 96813
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

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: 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, 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

MOANA PAA KAI (Continued) **1000146699**

SPENT SOLVENT MIXTURES.

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
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

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

Regulation violated: Not reported
Area of violation: Listing - General
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

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) **1000146699**

Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/04/1988
Date achieved compliance: 04/26/2001
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

Evaluation Action Summary:
Evaluation date: 10/12/2007
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/09/2008
Evaluation lead agency: State

Evaluation date: 10/12/2007
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Used Oil - Generators
Date achieved compliance: 06/09/2008
Evaluation lead agency: State

Evaluation date: 10/12/2007
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Listing - General
Date achieved compliance: 06/09/2008
Evaluation lead agency: State

Evaluation date: 04/26/2001
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Used Oil - Generators
Date achieved compliance: 08/14/2001
Evaluation lead agency: State

Evaluation date: 02/04/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/26/2001
Evaluation lead agency: State

SHWS:
Organization: Not reported
Supplemental Location: Honolulu Harbor Pier 21
Island: Oahu
Environmental Interest: Hawaiian Tug & Barge Corporation
HID Number: Not reported
Facility Registry Identifier: 110005726438
Lead Agency: HEER
Program: State
Project Manager: Steve Mow

MOANA PAA KAI (Continued) **1000146699**

Hazard Priority: Low
Potential Hazards And Controls: Hazard Undetermined
Organization: Not reported
Island: Oahu
Supplemental Location Text: Honolulu Harbor Pier 21
SDAR Environmental Interest Name: Hawaiian Tug & Barge Corporation
HID Number: Not reported
Facility Registry Identifier: 110005726438
Lead Agency: HEER
Progran Name: State
Potential Hazard And Controls: Hazard Undetermined
Priority: Low
Assessment: Assessment Ongoing
Response: Not reported
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: 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: Steve Mow
Contact Information: (808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

Organization: Not reported
Supplemental Location: Honolulu Harbor Pier 24-28
Island: Oahu
Environmental Interest: Young Brothers, Ltd. Piers 24-28
HID Number: Not reported
Facility Registry Identifier: 110005284110
Lead Agency: HEER
Program: State
Project Manager: Anna Fernandez
Hazard Priority: Medium
Potential Hazards And Controls: Hazard Present
Organization: Not reported
Island: Oahu
Supplemental Location Text: Honolulu Harbor Pier 24-28
SDAR Environmental Interest Name: Young Brothers, Ltd. Piers 24-28
HID Number: Not reported
Facility Registry Identifier: 110005284110
Lead Agency: HEER
Progran 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

MOANA PAA KAI (Continued) **1000146699**

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: 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: SOSC NFA
File Under: Young Brothers, Ltd.

Island: Oahu
Supplemental Loc. Text: Honolulu Harbor Pier 24-28
Case Number: 19940217-1
HID Number: Not reported
Facility Registry Id: 110005284110
Lead and Program: HEER EP&R
ER: Not reported
Units: Young Brothers Sheen Under Pier
Substances: petroleum
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: Young Brothers, Ltd.

Island: Oahu
Supplemental Loc. Text: Honolulu Harbor Pier 24-28
Case Number: 19940913
HID Number: Not reported
Facility Registry Id: 110005284110
Lead and Program: HEER EP&R
ER: Not reported
Units: Young Brothers Black Oil Overfill
Substances: black oil
Less Or Greater Than: Not reported
Numerical Quantity: 1200
Units: Gallons

MOANA PAA KAI (Continued) **1000146699**

Activity Type: Response
Activity Lead: Not reported
Assignment End Date: Not reported
Result: SOSC NFA
File Under: 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
Substances: oil
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: SOSC 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 Perry
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: record(s) in the EDR Site Report.

U73 **356 PACIFIC STREET BWS TRENCHING SHEEN** **HI SHWS** **S110169069**
ENE **356 PACIFIC ST** **HI SPILLS** **N/A**
1/2-1 **HONOLULU, HI**
0.992 mi.
5237 ft. **Site 3 of 4 in cluster U**

Relative:
Higher

Actual:
3 ft.

SHWS:
Organization: Not reported
Supplemental Location: Not reported
Island: Oahu
Environmental Interest: Chevron Tanker Truck Loading Rack (TTLR)
HID Number: Not reported
Facility Registry Identifier: Not reported

356 PACIFIC STREET BWS TRENCHING SHEEN (Continued) **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
Lead Agency:	HEER
Progran 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 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

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:	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

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:	Site Visit

356 PACIFIC STREET BWS TRENCHING SHEEN (Continued) **S110169069**

Units:	356 Pacific Street BWS Trenching Sheen
Substances:	Oily Soil
Less Or Greater Than:	Not reported
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

V74 **HAWAIIAN FLOUR MILL** **HI SHWS** **S106817404**
East **703 N NIMITZ HWY** **N/A**
1/2-1 **HONOLULU, HI 96808**
0.992 mi.
5238 ft. **Site 2 of 2 in cluster V**

Relative:
Higher

Actual:
3 ft.

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:	Steve 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
Progran 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 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:	Steve Mow
Contact Information:	(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

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

HI SHWS **1000436248**
HI SPILLS **N/A**
HI VCP

SHWS:

Organization:	Not reported
Supplemental Location:	Not reported
Island:	Oahu
Environmental Interest:	Brewer Environmental Industries-Pacific Street
HID Number:	HID059472357
Facility Registry Identifier:	110000903210
Lead Agency:	HEER
Program:	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
SDAR Environmental Interest Name:	Brewer Environmental Industries-Pacific Street
HID Number:	HID059472357
Facility Registry Identifier:	110000903210
Lead Agency:	HEER
Progran Name:	Voluntary Response Program
Potential Hazard And Controls:	Hazard Present
Priority:	High
Assessment:	Assessment Ongoing
Response:	Not reported
Nature of Contamination:	Found: Petroleum & PCS
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 Iwilei 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

HI SPILLS:

Island:	Oahu
Supplemental Loc. Text:	SW corner of property/pipes from Conoco-Philips
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

BREWER ENVIRONMENTAL INDUSTRIES-PACIFIC STREET (Continued) **1000436248**

Assignment End Date:	2011-08-25 00:00:00
Result:	Refer 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:	SOSC 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 Perry
Assignment End Date:	Not reported
Result:	SOSC 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:	Not reported
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

BREWER ENVIRONMENTAL INDUSTRIES-PACIFIC STREET (Continued) **1000436248**

Island: Oahu
Supplemental Loc. Text: Not reported
Case Number: 19881104
HID Number: HID059472357
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: SOSC NFA
File Under: Brewer Environmental Industries Hawaii

Click this hyperlink while viewing on your computer to access
1 additional HI SPILLS: record(s) in the EDR Site Report.

VCP:
Program: Voluntary Response Program
Zip Suffix: Not reported
Supplemental Location: Not reported
Island: Oahu

76
ENE
1/2-1
0.996 mi.
5258 ft.

Relative:
Higher

Actual:
3 ft.

POLYNESIAN HOSPITALITY **RCRA-CESQG** **1000906758**
330 PACIFIC ST **FINDS** **HI0000589812**
HONOLULU, HI 96817 **HI SHWS**
HI LUST
HI UST
HI SPILLS
HI Financial Assurance

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

POLYNESIAN HOSPITALITY (Continued) **1000906758**

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: 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

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

Violation Status: No violations found

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

FINDS:

Registry ID: 110005722316

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.

POLYNESIAN HOSPITALITY (Continued) **1000906758**

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:	110005722316
Lead Agency:	HEER
Program:	State
Project Manager:	Anna Fernandez
Hazard Priority:	Low
Potential Hazards And Controls:	Hazard Undetermined
Organization:	Not reported
Island:	Oahu
Supplemental Location Text:	Not reported
SDAR Environmental Interest Name:	Polynesian Hospitality
HID Number:	Not reported
Facility Registry Identifier:	110005722316
Lead Agency:	HEER
Progran Name:	State
Potential Hazard And Controls:	Hazard Undetermined
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:	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:	Anna Fernandez
Contact Information:	(808) 586-4249 919 Ala Moana Blvd, Honolulu, HI 96814

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) **1000906758**

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 Name:	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**

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
Units:	Polynesian Hospitality - Abutting City Mill
Substances:	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:	SOSC 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
Units:	Polynesian Hospitality
Substances:	Not reported
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

Map ID
Direction
Distance
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

POLYNESIAN HOSPITALITY (Continued) **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

Count: 11 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
HONOLULU	S108008549	KALANI, HART, MOKUAEA STREET, HONO	HART ST & KALANI ST & MOKUAEA		HI SHWS
HONOLULU	1006819301	KEEHI LAGOON CANOE FACILITY, INCRE	HOONEE PL	96819	HI SHWS, HI ENG CONTROLS, HI INST CONTROL
HONOLULU	S115488703	KALIHI AND KALAEPAA INTERSECTION	KALAEPAA DR AND KALIHI ST		HI SHWS, HI SPILLS
HONOLULU	1006820337	ABC DISPOSAL COMPANY	2760 KAMEHAMEHA HWY	96819	HI SHWS
HONOLULU	S111704706	FORMER KAPALAMA MILITARY RESERVATI	N NIMITZ HWY		HI SHWS
HONOLULU	S106819311	NIMITZ HIGHWAY WATER IMPROVEMENT P	N NIMITZ HWY	96817	HI SHWS
HONOLULU	S108008765	CITIZENS ENERGY SERVICES PIER 38	NIMITZ HWY		HI SHWS, HI SPILLS, HI ENG CONTROLS, HI INST CONTROL
HONOLULU	1016871597	SAND ISLAND OFF-HIGHWAY VEHICLE FA	1640 SAND ISLAND PARKWAY, ADJA	96819	FINDS
HONOLULU	1006820220	DLNR BURIED DRUM SITE	SAND ISLAND ACCESS RD	96819	HI SHWS, HI SPILLS, HI INST CONTROL
HONOLULU	1003879850	USCG BASE HONOLULU	SAND ISLAND ACCESS ROAD	96819	CERC-NFRAP
HONOLULU	S108859926	KOKUA KALIHI VALLEY ACTIVE LIVING	UPPER KALIHI ST		HI SHWS, HI BROWNFIELDS

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: 10/08/2014
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 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

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: 10/08/2014
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

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.

Date of Government Version: 09/29/2014
Date Data Arrived at EDR: 10/08/2014
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

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 persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94
Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 08/28/2014
Next Scheduled EDR Contact: 12/08/2014
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 Office is involved in cleanup activities.

Date of Government Version: 07/21/2014
Date Data Arrived at EDR: 10/07/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 13
Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/07/2014
Next Scheduled EDR Contact: 01/19/2015
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.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94
Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 08/28/2014
Next Scheduled EDR Contact: 12/08/2014
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

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78
Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/07/2014
Next Scheduled EDR Contact: 01/12/2015
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.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78
Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 11/07/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: 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.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78
Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 11/07/2014
Next Scheduled EDR Contact: 01/12/2015
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.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78
Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 11/07/2014
Next Scheduled EDR Contact: 01/12/2015
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.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78
Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 11/07/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

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: 09/18/2014
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: 09/18/2014
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: 08/29/2014
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: 202-267-2180
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

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

Date of Government Version: 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: 206-553-2857
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

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: 08/12/2014
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: 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: 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. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 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 UST 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 UST 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 UST 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 UST 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 UST 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 UST 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: 415-972-3368
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Quarterly

INDIAN UST 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: 08/15/2014
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

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: 12/08/2014
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 Lisitng
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 Brownfield 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: 09/21/2009
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

ODI: 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: 08/09/2004
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

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/29/2014
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.

Date of Government Version: 07/25/2014
Date Data Arrived at EDR: 09/09/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 41
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 09/03/2014
Next Scheduled EDR Contact: 12/15/2014
Data Release Frequency: Quarterly

CDL: Clandestine Drug Lab Listing
A listing of clandestine drug lab site locations.

Date of Government Version: 08/04/2010
Date Data Arrived at EDR: 09/10/2010
Date Made Active in Reports: 10/22/2010
Number of Days to Update: 42
Source: Department of Health
Telephone: 808-586-4249
Last EDR Contact: 09/03/2014
Next Scheduled EDR Contact: 12/15/2014
Data Release Frequency: Varies

US HIST 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.

Date of Government Version: 07/25/2014
Date Data Arrived at EDR: 09/09/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 41
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 09/03/2014
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.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37
Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 10/27/2014
Next Scheduled EDR Contact: 02/09/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Records of Emergency Release Reports

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

Date of Government Version: 09/30/2014
Date Data Arrived at EDR: 10/01/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 36
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 10/01/2014
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.

Date of Government Version: 01/04/2014
Date Data Arrived at EDR: 02/26/2014
Date Made Active in Reports: 03/10/2014
Number of Days to Update: 12
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

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.

Date of Government Version: 03/10/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/11/2013
Number of Days to Update: 39
Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
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.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78
Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 11/07/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data
Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42
Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 11/04/2014
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.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 11/07/2014
Next Scheduled EDR Contact: 01/26/2015
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: 09/18/2014
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 Decrees

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: 505-845-0011
Last EDR Contact: 08/20/2014
Next Scheduled EDR Contact: 12/08/2014
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: 08/05/2014
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: 09/29/2014
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.

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: 08/02/2013
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 administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
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(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

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: 808-586-4258
Last EDR Contact: 09/02/2014
Next Scheduled EDR Contact: 12/15/2014
Data Release Frequency: Varies

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: 01/11/2007
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 administrated lands of the United States. Lands included are administrated 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: 888-275-8747
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: 703-308-4044
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 1931and 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

COAL ASH 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.

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: Sleam-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: 08/07/2009
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

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) 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 whale 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 (oily 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 HRHR. EDR's HRHR 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, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR 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

RGA 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.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/03/2014
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: 01/08/2014
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
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 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 Geologic 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

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GEOCHECK®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

SOEST FACILITY
SAND ISLAND ACCESS ROAD
HONOLULU, HI 96819

TARGET PROPERTY COORDINATES

Latitude (North):	21.3118 - 21° 18' 42.48''
Longitude (West):	157.8876 - 157° 53' 15.36''
Universal Tranverse 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).

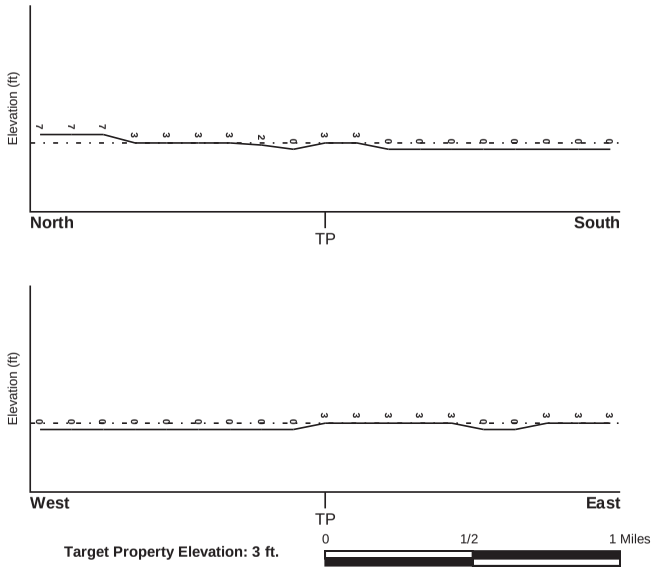
TOPOGRAPHIC INFORMATION

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	FEMA Flood Electronic Data
HONOLULU, HI	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	NWI Electronic Data Coverage
NOT AVAILABLE	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	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

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

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

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

ROCK STRATIGRAPHIC UNIT

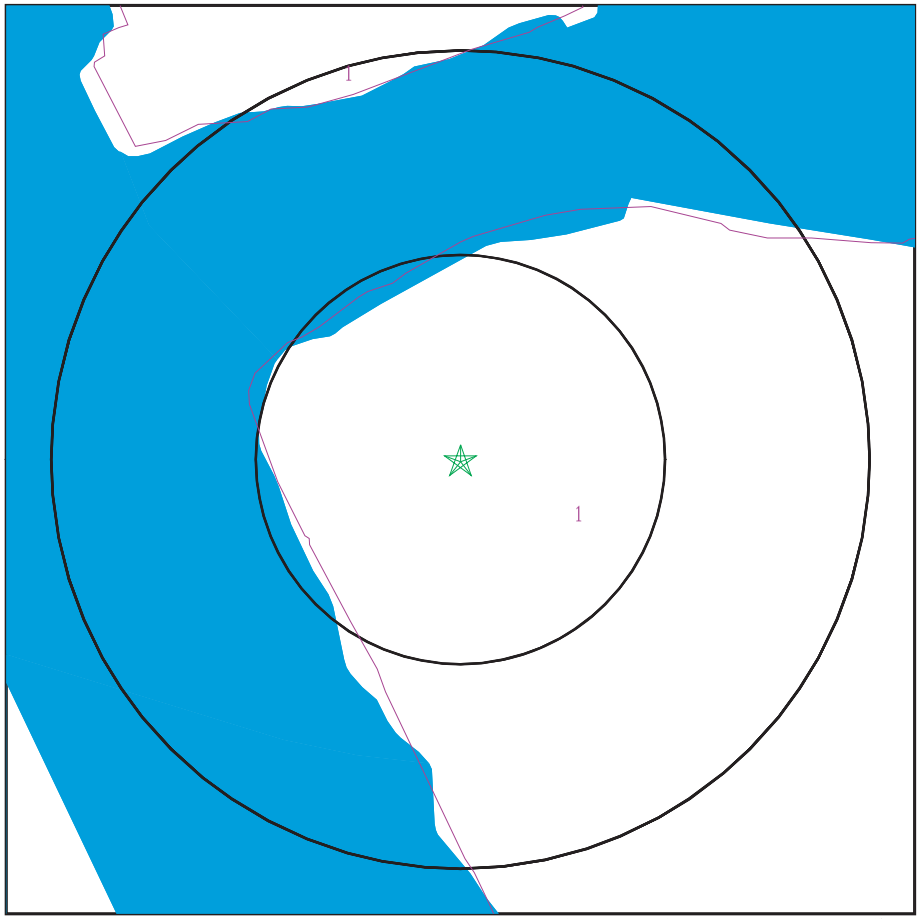
Era: -
System: -
Series: -
Code: N/A *(decoded above as Era, System & Series)*

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



SITE NAME: SOEST Facility	CLIENT: Enviro Srvcs. and Trng. Center
ADDRESS: Sand Island Access Road	CONTACT: Lisa Baxter
Honolulu HI 96819	INQUIRY #: 4138072.2s
LAT/LONG: 21.3118 / 157.8876	DATE: November 19, 2014 0:46 am

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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 Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	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.

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 ENE
9	USGS40000269730	1/2 - 1 Mile East
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

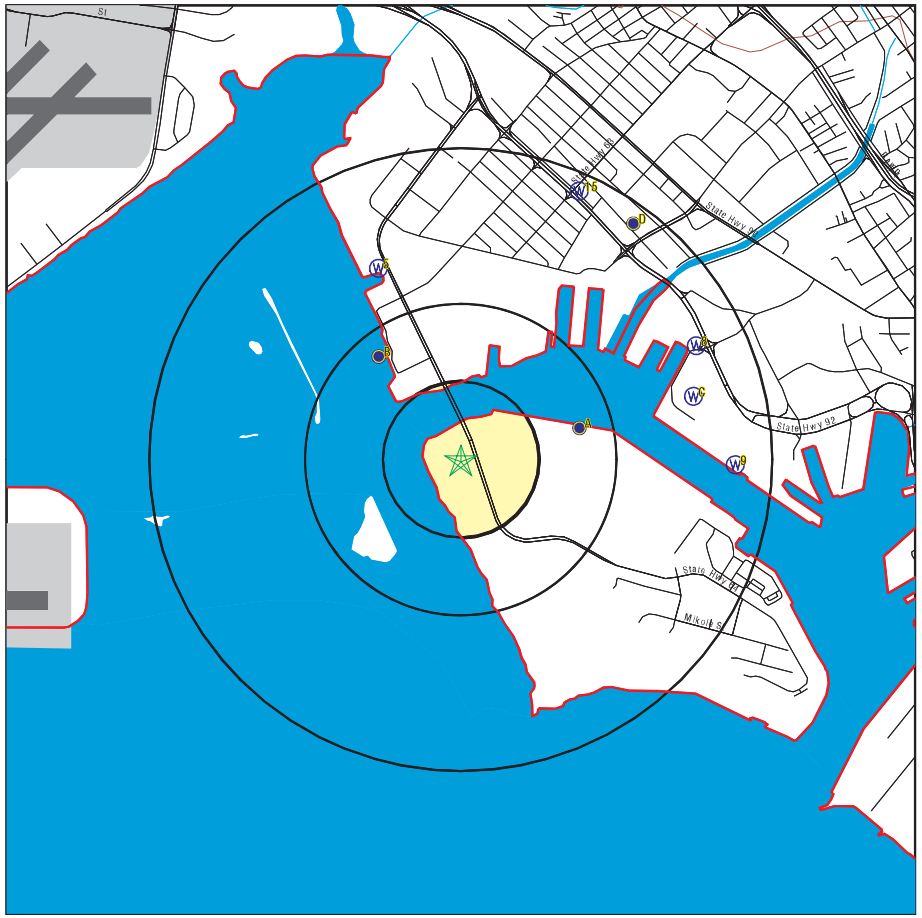
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	HI8000000002315	1/4 - 1/2 Mile ENE
B4	HI8000000002346	1/4 - 1/2 Mile NW
D13	HI8000000002385	1/2 - 1 Mile NE
D14	HI8000000002386	1/2 - 1 Mile NE
D16	HI8000000002387	1/2 - 1 Mile NE

PHYSICAL SETTING SOURCE MAP - 4138072.2s



County Boundary
Major Roads
Contour Lines
Airports
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

0 1/4 1/2 1 Miles

Groundwater Flow Direction
GI Indeterminate Groundwater Flow at Location
GV Groundwater Flow Varies at Location

N

SITE NAME: SOEST Facility	CLIENT: Enviro Srvcs. and Trng. Center
ADDRESS: Sand Island Access Road Honolulu HI 96819	CONTACT: Lisa Baxter INQUIRY #: 4138072.2s
LAT/LONG: 21.3118 / 157.8876	DATE: November 19, 2014 0:46 am

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Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A1
ENE **FED USGS** **USGS40000269749**
1/4 - 1/2 Mile
Higher

Org. Identifier:	USGS-HI		
Formal name:	USGS Hawaii Water Science Center		
Monloc Identifier:	USGS-211859157530401		
Monloc name:	3-1853-01 SAND IS		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	20060000	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	21.3132247
Longitude:	-157.8817006	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	2.00
Vert measure units:	feet	Vertacc measure val:	1
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19730517	Welldepth:	120
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

A2
ENE **HI WELLS** **HI8000000002315**
1/4 - 1/2 Mile
Lower

Objectid:	814	Wid:	3-1853-001
Island:	Oahu	Well name:	Sand Isle Wharf
Old name:	Not Reported		
Yr drilled:	1973		
Driller:	CONTINENTAL		
Quad map:	13		
Long83dd:	-157.881666667		
Lat83dd:	21.3133333333		
Gps:	0	Utm:	-1
Owner user:	State Of Hawaii	Old number:	Not Reported
Well type:	Not Reported	Casing dia:	Not Reported
Ground el:	Not Reported		
Well depth:	120		
Solid case:	Not Reported	Perf case:	Not Reported
Use:	UNU - Unused	Use year:	Not Reported
Init head:	Not Reported	Init head2:	Not Reported
Init head3:	Not Reported		
Init cl:	0		
Test date:	Not Reported	Test gpm:	Not Reported
Test ddown:	Not Reported	Test chlor:	Not Reported

Test temp:	Not Reported	Test unit:	Not Reported
Pump gpm:	0		
Draft mgy:	Not Reported	Head feet:	Not Reported
Max chlor:	Not Reported	Min chlor:	Not Reported
Geology:	Not Reported		
Pump yr:	0		
Draft yr:	Not Reported	Bot hole:	Not Reported
Bot solid:	Not Reported	Bot perf:	Not Reported
Spec capac:	Not Reported		
Pump mgd:	0		
Draft mgd:	Not Reported	Pump elev:	Not Reported
Pump depth:	Not Reported	Tmk:	Not Reported
Aqui code:	30103		
Latest hd:	Not Reported	Wcr:	17-MAY-73
Pir:	Not Reported	Surveyor:	Not Reported
T:	Not Reported	Site id:	HI8000000002315

B3
NW **FED USGS** **USGS40000269787**
1/4 - 1/2 Mile
Lower

Org. Identifier:	USGS-HI		
Formal name:	USGS Hawaii Water Science Center		
Monloc Identifier:	USGS-211911157534001		
Monloc name:	3-1953-01		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	20060000	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	21.316558
Longitude:	-157.8917003	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	8.00
Vert measure units:	feet	Vertacc measure val:	2
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19760205	Welldepth:	100
Welldepth units:	ft	Wellholedepth:	120
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

B4
NW **HI WELLS** **HI8000000002346**
1/4 - 1/2 Mile
Lower

Objectid:	960	Wid:	3-1953-002
Island:	Oahu	Well name:	Salt Water
Old name:	Not Reported		
Yr drilled:	1976		
Driller:	CONTINENTAL		
Quad map:	13		
Long83dd:	-157.891666667		
Lat83dd:	21.3166666667		
Gps:	0	Utm:	-1
Owner user:	State DAGS	Old number:	Not Reported
Well type:	Not Reported	Casing dia:	4
Ground el:	8		
Well depth:	120		
Solid case:	100	Perf case:	Not Reported
Use:	ABN - Sealed	Use year:	Not Reported
Init head:	0	Init head2:	Not Reported
Init head3:	Not Reported		
Init cl:	0		
Test date:	2/12/1976	Test gpm:	275
Test ddown:	0.7	Test chlor:	Not Reported
Test temp:	Not Reported	Test unit:	Not Reported
Pump gpm:	0		
Draft mgy:	Not Reported	Head feet:	Not Reported
Max chlor:	Not Reported	Min chlor:	Not Reported
Geology:	Not Reported		
Pump yr:	0		
Draft yr:	Not Reported	Bot hole:	-112
Bot solid:	-92	Bot perf:	Not Reported
Spec capac:	393		
Pump mgd:	0		
Draft mgd:	Not Reported	Pump elev:	Not Reported
Pump depth:	Not Reported	Tmk:	(1) 1-2-013:002
Aqui code:	30103		
Latest hd:	Not Reported	Wcr:	04-FEB-76
Pir:	Not Reported	Surveyor:	Not Reported
T:	Not Reported	Site id:	HI8000000002346

5
NNW **FED USGS** **USGS40000269806**
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 value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	21.3207244
Longitude:	-157.8917003	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	3.00
Vert measure units:	feet	Vertacc measure val:	2
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19780101	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

C6
ENE **FED USGS** **USGS40000269764**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-HI		
Formal name:	USGS Hawaii Water Science Center		
Monloc Identifier:	USGS-211906157524402		
Monloc name:	3-1952.03B		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	20060000	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	21.3151689
Longitude:	-157.876145	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	5.00
Vert measure units:	feet	Vertacc measure val:	3
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19731115	Welldepth:	75
Welldepth units:	ft	Wellholedepth:	75
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

C7
ENE **FED USGS** **USGS40000269754**
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 value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	21.3143356
Longitude:	-157.8758674	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	5.00
Vert measure units:	feet	Vertacc measure val:	3
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19731115	Welldepth:	75
Welldepth units:	ft	Wellholedepth:	75
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

8
ENE **FED USGS** **USGS40000269791**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-HI		
Formal name:	USGS Hawaii Water Science Center		
Monloc Identifier:	USGS-211913157524303		
Monloc name:	3-1952.03C		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	20060000	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	21.3171132
Longitude:	-157.8758674	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	5.00
Vert measure units:	feet	Vertacc measure val:	3
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19731115	Welldepth:	75
Welldepth units:	ft	Wellholedepth:	75
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

9
East **FED USGS** **USGS40000269730**
1/2 - 1 Mile
Higher

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 value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	21.311558
Longitude:	-157.8739229	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	5.00
Vert measure units:	feet	Vertacc measure val:	3
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19731123	Welldepth:	65
Welldepth units:	ft	Wellholedepth:	65
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

D10
NE **FED USGS** **USGS40000269819**
1/2 - 1 Mile
Higher

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 value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	21.3226684
Longitude:	-157.8789229	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	15.00
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19600901	Welldepth:	250
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

D11
NE **FED USGS** **USGS40000269820**
1/2 - 1 Mile
Higher

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 value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	21.3226684
Longitude:	-157.8789229	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	15.00
Vert measure units:	feet	Vertacc measure val:	2
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19670601	Welldepth:	80
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**

Org. Identifier:	USGS-HI		
Formal name:	USGS Hawaii Water Science Center		
Monloc Identifier:	USGS-211934157525501		
Monloc name:	3-1952-34 W130 KAPAL		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	20060000	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	21.3229462
Longitude:	-157.8792006	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	15.00
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19590410	Welldepth:	85
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

D13
NE
1/2 - 1 Mile
Higher

HI WELLS **HI8000000002385**

Objectid:	945	Wid:	3-1952-035
Island:	Oahu	Well name:	Kapalama
Old name:	Not Reported		
Yr drilled:	1960		
Driller:	SAMSON-SMOCK		
Quad map:	13		
Long83dd:	-157.878888889		
Lat83dd:	21.3227777778		
Gps:	0	Utm:	-1
Owner user:	KS/Bishop Estate	Old number:	130-1
Well type:	Not Reported	Casing dia:	16
Ground el:	15		
Well depth:	250		
Solid case:	20	Perf case:	205
Use:	UNU - Unused	Use year:	Not Reported
Init head:	12.9	Init head2:	Not Reported
Init head3:	Not Reported		
Init cl:	11600		
Test date:	Not Reported	Test gpm:	Not Reported
Test ddown:	Not Reported	Test chlor:	Not Reported

Test temp:	Not Reported	Test unit:	Not Reported
Pump gpm:	0		
Draft mgy:	Not Reported	Head feet:	Not Reported
Max chlor:	Not Reported	Min chlor:	Not Reported
Geology:	QLS		
Pump yr:	0		
Draft yr:	Not Reported	Bot hole:	-235
Bot solid:	-5	Bot perf:	-190
Spec capac:	Not Reported		
Pump mgd:	0		
Draft mgd:	Not Reported	Pump elev:	Not Reported
Pump depth:	Not Reported	Tmk:	(1) 1-5-030:001
Aqui code:	30103		
Latest hd:	Not Reported	Wcr:	01-JAN-60
Pir:	Not Reported	Surveyor:	Not Reported
T:	Not Reported	Site id:	HI8000000002385

D14
NE
1/2 - 1 Mile
Higher

HI WELLS **HI8000000002386**

Objectid:	946	Wid:	3-1952-036
Island:	Oahu	Well name:	Kapalama
Old name:	Not Reported		
Yr drilled:	1967		
Driller:	NAT WHITON		
Quad map:	13		
Long83dd:	-157.878888889		
Lat83dd:	21.3227777778		
Gps:	0	Utm:	-1
Owner user:	KS/Bishop Estate	Old number:	130-2
Well type:	Not Reported	Casing dia:	16
Ground el:	15		
Well depth:	80		
Solid case:	46	Perf case:	Not Reported
Use:	Other	Use year:	Not Reported
Init head:	0.3	Init head2:	Not Reported
Init head3:	Not Reported		
Init cl:	11311		
Test date:	Not Reported	Test gpm:	525
Test ddown:	27	Test chlor:	16500
Test temp:	26.7	Test unit:	C
Pump gpm:	0		
Draft mgy:	Not Reported	Head feet:	Not Reported
Max chlor:	Not Reported	Min chlor:	Not Reported
Geology:	QLS		
Pump yr:	0		
Draft yr:	Not Reported	Bot hole:	-65
Bot solid:	-31	Bot perf:	Not Reported
Spec capac:	19		
Pump mgd:	0		
Draft mgd:	Not Reported	Pump elev:	Not Reported
Pump depth:	Not Reported	Tmk:	(1) 1-5-030:002
Aqui code:	30103		
Latest hd:	Not Reported	Wcr:	01-JAN-67
Pir:	Not Reported	Surveyor:	Not Reported
T:	Not Reported	Site id:	HI8000000002386

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
15		
NNE	**FED USGS**	**USGS40000269830**
1/2 - 1 Mile		
Higher		

Org. Identifier:	USGS-HI		
Formal name:	USGS Hawaii Water Science Center		
Monloc Identifier:	USGS-211939157530401		
Monloc name:	3-1953.01		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	20060000	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	21.3243351
Longitude:	-157.8817005	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	13.00
Vert measure units:	feet	Vertacc measure val:	1
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	HILOCAL	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19710701	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

	Database	EDR ID Number
D16		
NE	**HI WELLS**	**HI8000000002387**
1/2 - 1 Mile		
Higher		

Objectid:	944	Wid:	3-1952-034
Island:	Oahu	Well name:	Kapalama
Old name:	Not Reported		
Yr drilled:	1959		
Driller:	NAT WHITON		
Quad map:	13		
Long83dd:	-157.879166667		
Lat83dd:	21.3230555556		
Gps:	0	Utm:	-1
Owner user:	KS/Bishop Estate	Old number:	130-
Well type:	Not Reported	Casing dia:	12
Ground el:	15		
Well depth:	85		
Solid case:	60	Perf case:	Not Reported
Use:	Other	Use year:	Not Reported
Init head:	4	Init head2:	Not Reported
Init head3:	Not Reported		
Init cl:	0		
Test date:	Not Reported	Test gpm:	750
Test ddown:	31.4	Test chlor:	18850

Test temp:	Not Reported	Test unit:	Not Reported
Pump gpm:	0		
Draft mgy:	Not Reported	Head feet:	Not Reported
Max chlor:	Not Reported	Min chlor:	Not Reported
Geology:	QLS		
Pump yr:	0		
Draft yr:	Not Reported	Bot hole:	-70
Bot solid:	-45	Bot perf:	Not Reported
Spec capac:	24		
Pump mgd:	0		
Draft mgd:	Not Reported	Pump elev:	Not Reported
Pump depth:	Not Reported	Tmk:	(1) 1-5-030:002
Aqui code:	30103		
Latest hd:	Not Reported	Wcr:	01-JAN-59
Pir:	Not Reported	Surveyor:	Not Reported
T:	Not Reported	Site id:	HI8000000002387

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 Geologic 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 Geologic 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

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

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

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation 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

Epicenters: 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

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APPENDIX V
QUALIFICATIONS OF THE ENVIRONMENTAL PROFESSIONAL

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

Sharla 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-Safe 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 Chromatogrpahy (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

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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

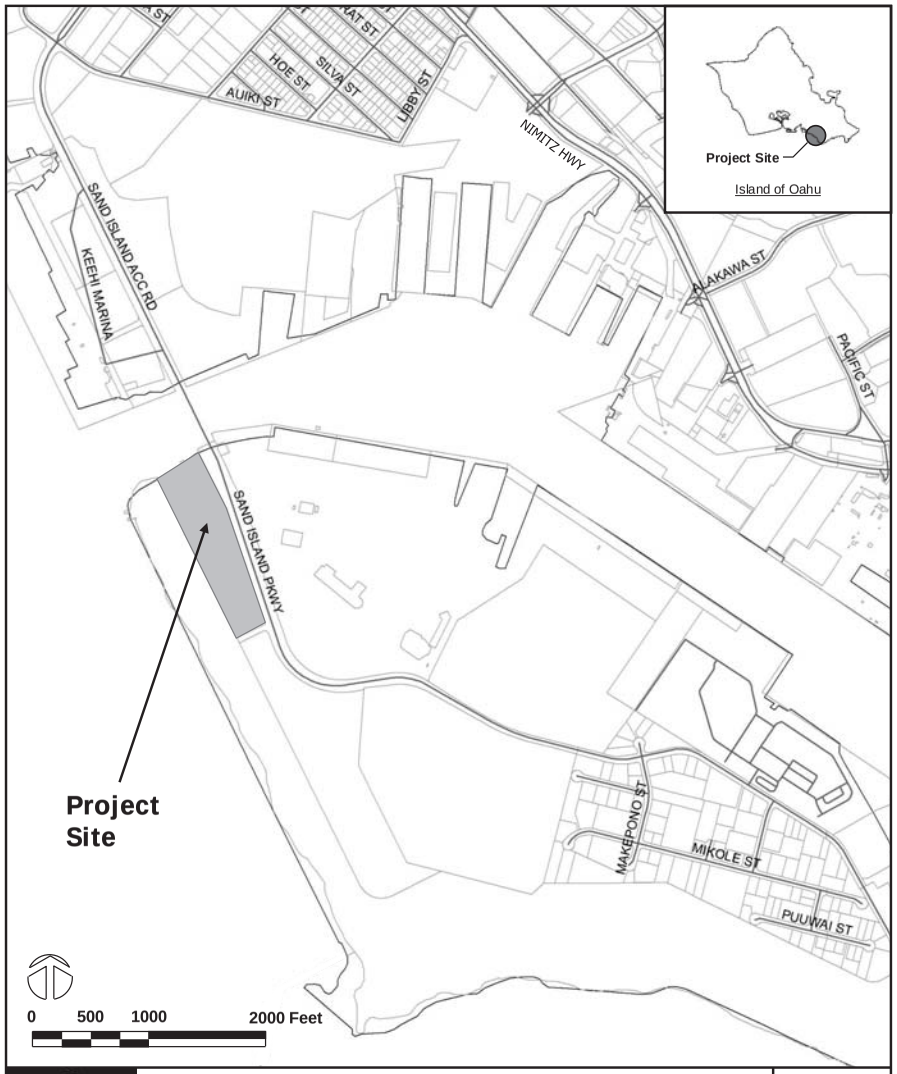
This report presents the findings and conclusions of the traffic study, the scope of which includes:

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.



WILSON OKAMOTO CORPORATION

UH SOEST AND METC FACILITY

LOCATION MAP AND VICINITY MAP

FIGURE 1

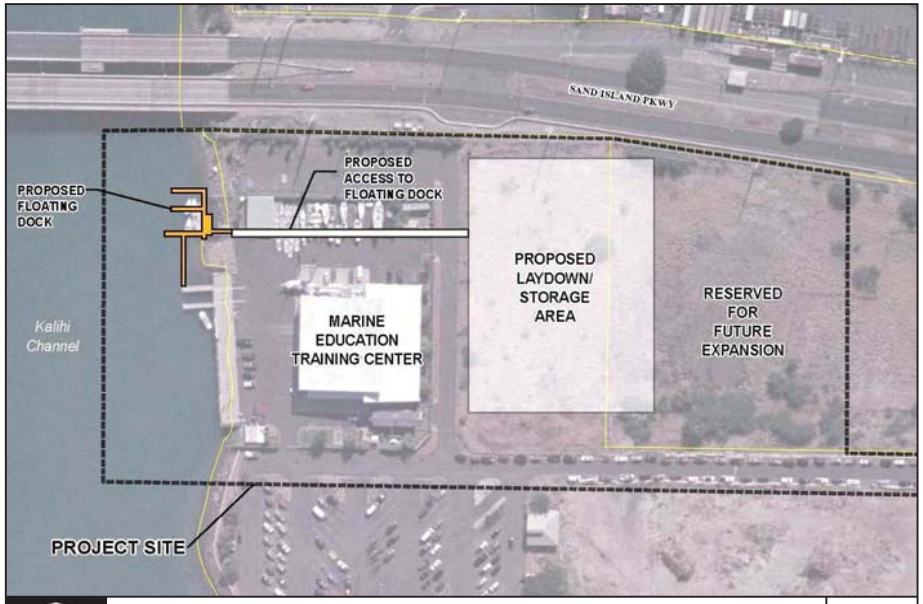
B. Project Characteristics

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.

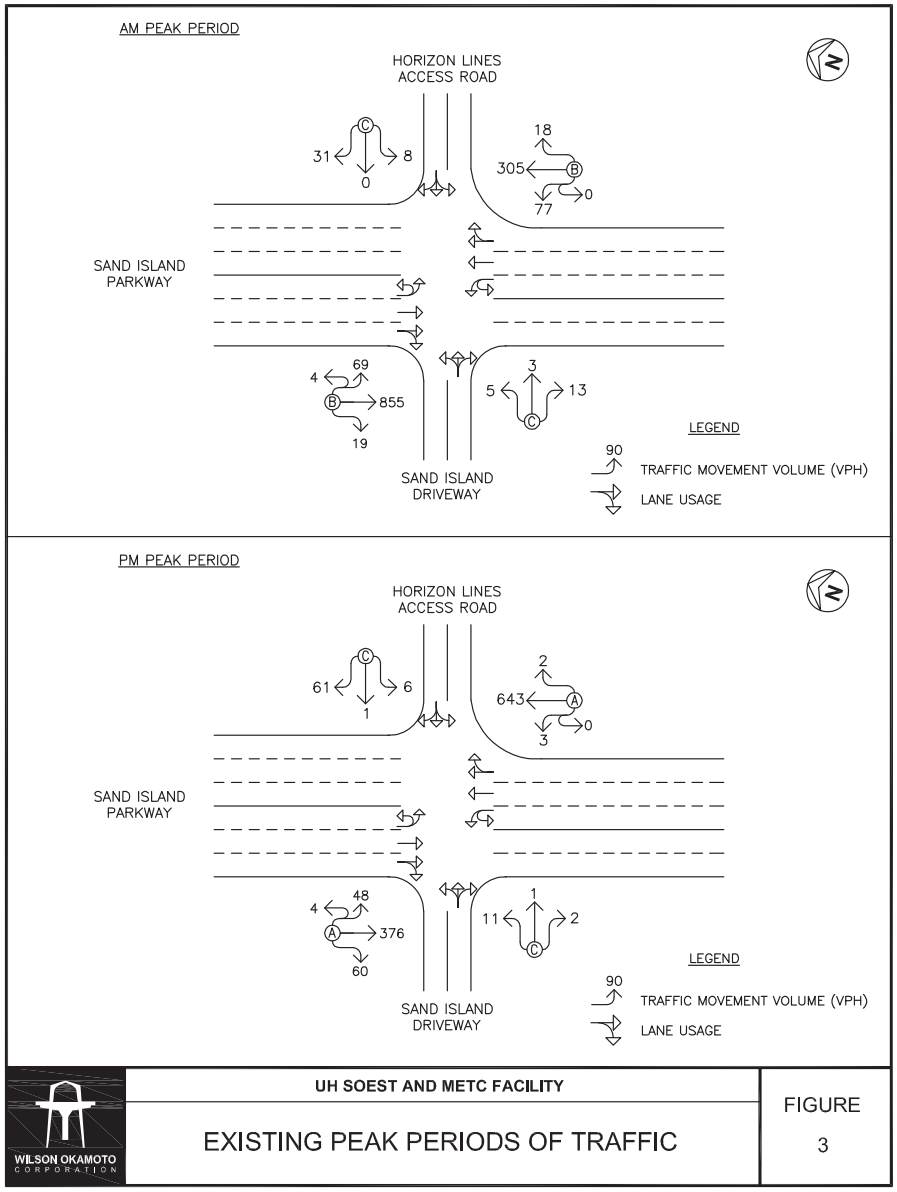
2. Existing Peak Hour Traffic

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

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.

APPENDIX A

EXISTING TRAFFIC COUNT DATA

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu, Hi 96826

Counted By:KC, TO
Counters:D4-3888, D4-3889
Weather:Clear

File Name : SandIslPkwy AM
Site Code : 00000001
Start Date : 11/25/2014
Page No : 1

Groups Printed- Unshifted

	Horizon Lines Entrance Southbound					Sand Island Parkway Westbound					Access Road Northbound					Sand Island Parkway Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:00 AM	3	0	3	0	6	2	69	3	0	74	2	0	1	0	3	10	194	6	0	210	293
06:15 AM	2	0	3	0	5	28	60	1	2	91	2	0	4	1	7	9	239	5	0	253	356
06:30 AM	2	0	0	0	2	30	50	2	1	83	0	3	2	0	5	20	190	6	0	216	306
06:45 AM	0	0	3	0	3	17	31	1	1	50	1	0	6	0	7	14	180	2	0	196	256
Total	7	0	9	0	16	77	210	7	4	298	5	3	13	1	22	53	803	19	0	875	1211
07:00 AM	1	0	1	0	2	22	62	0	0	84	2	0	4	1	7	15	126	7	0	148	241
07:15 AM	4	0	7	0	11	26	53	0	0	79	0	0	5	0	5	12	140	10	0	162	257
07:30 AM	1	0	4	0	5	37	54	0	1	92	3	0	10	0	13	6	101	4	0	111	221
07:45 AM	4	0	6	0	10	13	27	0	1	41	6	1	5	1	13	8	130	1	0	139	203
Total	10	0	18	0	28	98	196	0	2	296	11	1	24	2	38	41	497	22	0	560	922
08:00 AM	1	0	6	0	7	16	41	0	0	57	3	0	2	0	5	7	84	3	0	94	163
08:15 AM	1	0	5	0	6	0	58	0	0	58	0	0	0	1	1	3	91	6	0	100	165
08:30 AM	0	0	6	0	6	0	54	0	2	56	4	0	0	0	4	5	117	1	0	123	189
08:45 AM	6	0	4	1	11	0	50	2	1	53	3	0	3	0	6	11	96	3	0	110	180
Total	8	0	21	1	30	16	203	2	3	224	10	0	5	1	16	26	388	13	0	427	697
Grand Total	25	0	48	1	74	191	609	9	9	818	26	4	42	4	76	120	1688	54	0	1862	2830
Apprch %	33.8	0	64.9	1.4		23.3	74.4	1.1	1.1		34.2	5.3	55.3	5.3		6.4	90.7	2.9	0		
Total %	0.9	0	1.7	0	2.6	6.7	21.5	0.3	0.3	28.9	0.9	0.1	1.5	0.1	2.7	4.2	59.6	1.9	0	65.8	

	Horizon Lines Entrance Southbound				Sand Island Parkway Westbound				Access Road Northbound				Sand Island Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 06:00 AM																	
06:00 AM	**3**	0	**3**	**6**	2	**69**	**3**	74	**2**	0	1	3	10	194	**6**	210	293
06:15 AM	2	0	3	5	28	60	1	**89**	2	0	4	6	9	**239**	5	**253**	**353**
06:30 AM	2	0	0	2	**30**	50	2	82	0	**3**	2	5	**20**	190	6	216	305
06:45 AM	0	0	3	3	17	31	1	49	1	0	**6**	**7**	14	180	2	196	255
Total Volume	7	0	9	16	77	210	7	294	5	3	13	21	53	803	19	875	1206
% App. Total	43.8	0	56.2		26.2	71.4	2.4		23.8	14.3	61.9		6.1	91.8	2.2		
PHF	.583	.000	.750	.667	.642	.761	.583	.826	.625	.250	.542	.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 : 11/25/2014
Page No : 1

Groups Printed- Unshifted

	Horizon Lines Entrance Southbound					Sand Island Parkway Westbound					Northbound	Sand Island Parkway Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:00 AM	0	0	1	0	1	0	9	3	0	12	0	2	6	0	0	8	21
06:15 AM	0	0	6	0	6	0	29	5	0	34	0	5	29	0	0	34	74
06:30 AM	1	0	9	0	10	0	29	2	0	31	0	6	8	0	0	14	55
06:45 AM	0	0	6	0	6	0	28	1	0	29	0	3	9	0	0	12	47
Total	1	0	22	0	23	0	95	11	0	106	0	16	52	0	0	68	197
07:00 AM	0	0	4	0	4	0	17	1	0	18	0	8	14	0	0	22	44
07:15 AM	0	0	5	0	5	0	21	0	0	21	0	9	7	0	0	16	42
07:30 AM	0	0	5	0	5	0	19	0	0	19	0	1	13	0	0	14	38
07:45 AM	0	0	7	0	7	0	21	0	0	21	0	13	5	0	0	18	46
Total	0	0	21	0	21	0	78	1	0	79	0	31	39	0	0	70	170
08:00 AM	0	0	1	0	1	0	14	0	0	14	0	9	18	0	0	27	42
08:15 AM	1	0	6	0	7	0	15	0	0	15	0	5	14	0	0	19	41
08:30 AM	0	0	12	0	12	0	13	0	0	13	0	8	19	0	0	27	52
08:45 AM	0	0	7	0	7	0	23	0	0	23	0	7	7	0	0	14	44
Total	1	0	26	0	27	0	65	0	0	65	0	29	58	0	0	87	179
Grand Total	2	0	69	0	71	0	238	12	0	250	0	76	149	0	0	225	546
Apprch %	2.8	0	97.2	0		0	95.2	4.8	0			33.8	66.2	0	0		
Total %	0.4	0	12.6	0	13	0	43.6	2.2	0	45.8	0	13.9	27.3	0	0	41.2	

	Horizon Lines Entrance Southbound				Sand Island Parkway Westbound				Northbound	Sand Island Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1														
Peak Hour for Entire Intersection Begins at 06:15 AM														
06:15 AM	0	0	6	6	0	**29**	**5**	**34**	0	5	**29**	0	**34**	**74**
06:30 AM	**1**	0	**9**	**10**	0	29	2	31	0	6	8	0	14	55
06:45 AM	0	0	6	6	0	28	1	29	0	3	9	0	12	47
07:00 AM	0	0	4	4	0	17	1	18	0	**8**	14	0	22	44
Total Volume	1	0	25	26	0	103	9	112	0	22	60	0	82	220
% App. Total	3.8	0	96.2		0	92	8			26.8	73.2	0		
PHF	.250	.000	.694	.650	.000	.888	.450	.824	.000	.688	.517	.000	.603	.743

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu, Hi 96826

Counted By:KC, TO
Counters:D4-3888, D4-3889
Weather:Clear

File Name : SandIslPkwy U-Turns AM
Site Code : 00000001
Start Date : 11/25/2014
Page No : 1

Groups Printed- Unshifted

	Southbound	Westbound	Northbound	Sand Island Parkway Left = U-Turns Eastbound					
Start Time	App. Total	App. Total	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:00 AM	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	2	0	0	0	2	2
06:30 AM	0	0	0	1	0	0	0	1	1
06:45 AM	0	0	0	1	0	0	0	1	1
Total	0	0	0	4	0	0	0	4	4
07:00 AM	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	1	0	0	0	1	1
07:45 AM	0	0	0	1	0	0	0	1	1
Total	0	0	0	2	0	0	0	2	2
08:00 AM	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	2	0	0	0	2	2
08:45 AM	0	0	0	1	0	0	0	1	1
Total	0	0	0	3	0	0	0	3	3
Grand Total	0	0	0	9	0	0	0	9	9
Apprch %				100	0	0	0		
Total %	0	0	0	100	0	0	0	100	

	Southbound	Westbound	Northbound	Sand Island Parkway Left = U-Turns Eastbound				
Start Time	App. Total	App. Total	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 06:00 AM								
06:00 AM	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	**2**	0	0	**2**	**2**
06:30 AM	0	0	0	1	0	0	1	1
06:45 AM	0	0	0	1	0	0	1	1
Total Volume	0	0	0	4	0	0	4	4
% App. Total				100	0	0		
PHF	.000	.000	.000	.500	.000	.000	.500	.500

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu, Hi 96826

Counted By:KC, TO
Counters:D4-3888, D4-3889
Weather:Clear

File Name : SandIslPkwy PM
Site Code : 00000001
Start Date : 11/25/2014
Page No : 1

Groups Printed- Unshifted

	Horizon Lines Entrance Southbound					Sand Island Parkway Westbound					Access Road Northbound					Sand Island Parkway Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	2	0	11	0	13	0	173	1	1	175	0	0	1	1	2	5	83	12	0	100	290
03:15 PM	1	0	12	0	13	0	126	0	1	127	6	0	1	2	9	2	83	13	0	98	247
03:30 PM	3	0	12	0	15	1	173	0	0	174	2	0	0	1	3	9	81	13	0	103	295
03:45 PM	0	1	11	0	12	2	133	0	0	135	3	1	0	2	6	8	66	22	0	96	249
Total	6	1	46	0	53	3	605	1	2	611	11	1	2	6	20	24	313	60	0	397	1081
04:00 PM	0	0	13	0	13	0	177	0	0	177	2	0	0	9	11	2	65	8	0	75	276
04:15 PM	0	0	3	0	3	2	120	0	0	122	5	0	0	2	7	1	53	16	0	70	202
04:30 PM	0	0	7	0	7	0	132	0	0	132	0	0	0	0	0	4	48	18	0	70	209
04:45 PM	0	1	2	0	3	0	69	0	0	69	0	0	0	0	0	1	36	21	0	58	130
Total	0	1	25	0	26	2	498	0	0	500	7	0	0	11	18	8	202	63	0	273	817
05:00 PM	1	0	6	0	7	2	101	0	0	103	5	0	1	0	6	1	47	19	0	67	183
05:15 PM	0	1	4	0	5	1	85	0	0	86	9	0	0	0	9	2	47	19	0	68	168
05:30 PM	0	0	3	0	3	1	65	0	0	66	11	0	0	0	11	0	55	15	0	70	150
05:45 PM	0	1	8	0	9	3	35	0	0	38	4	0	0	0	4	0	51	21	0	72	123
Total	1	2	21	0	24	7	286	0	0	293	29	0	1	0	30	3	200	74	0	277	624
Grand Total	7	4	92	0	103	12	1389	1	2	1404	47	1	3	17	68	35	715	197	0	947	2522
Apprch %	6.8	3.9	89.3	0		0.9	98.9	0.1	0.1		69.1	1.5	4.4	25		3.7	75.5	20.8	0		
Total %	0.3	0.2	3.6	0	4.1	0.5	55.1	0	0.1	55.7	1.9	0	0.1	0.7	2.7	1.4	28.4	7.8	0	37.5	

	Horizon Lines Entrance Southbound				Sand Island Parkway Westbound				Access Road Northbound				Sand Island Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	2	0	11	13	0	**173**	**1**	**174**	0	0	**1**	1	5	**83**	12	100	288
03:15 PM	1	0	**12**	13	0	126	0	126	**6**	0	1	**7**	2	83	13	98	244
03:30 PM	**3**	0	12	**15**	1	173	0	174	2	0	0	2	**9**	81	13	**103**	**294**
03:45 PM	0	**1**	11	12	**2**	133	0	135	3	**1**	0	4	8	66	**22**	96	247
Total Volume	6	1	46	53	3	605	1	609	11	1	2	14	24	313	60	397	1073
% App. Total	11.3	1.9	86.8		0.5	99.3	0.2		78.6	7.1	14.3		6	78.8	15.1		
PHF	.500	.250	.958	.883	.375	.874	.250	.875	.458	.250	.500	.500	.667	.943	.682	.964	.912

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 : 00000001
Start Date : 11/25/2014
Page No : 1

Groups Printed- Unshifted

	Horizon Lines Entrance Southbound					Sand Island Parkway Westbound					Access Road Northbound					Sand Island Parkway Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	0	0	8	1	9	0	8	1	0	9	0	0	0	0	0	8	22	0	0	30	48
03:15 PM	0	0	3	0	3	0	11	0	0	11	0	0	0	0	0	10	19	0	0	29	43
03:30 PM	0	0	3	0	3	0	14	0	0	14	0	0	0	0	0	5	10	0	0	15	32
03:45 PM	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	1	12	0	0	13	19
Total	0	0	15	1	16	0	38	1	0	39	0	0	0	0	0	24	63	0	0	87	142
04:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	7	0	0	7	9
04:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	6
04:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	12	0	0	12	17
05:00 PM	0	0	0	0	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	0	0	0	0
05:30 PM	0	0	0	0	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	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Grand Total	0	0	15	1	16	0	43	1	0	44	0	0	0	0	0	24	76	0	0	100	160
Apprch %	0	0	93.8	6.2		0	97.7	2.3	0		0	0	0	0		24	76	0	0		
Total %	0	0	9.4	0.6	10	0	26.9	0.6	0	27.5	0	0	0	0	0	15	47.5	0	0	62.5	

	Horizon Lines Entrance Southbound				Sand Island Parkway Westbound				Access Road Northbound				Sand Island Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	0	**8**	**8**	0	8	**1**	9	0	0	0	0	8	**22**	0	**30**	**47**
03:15 PM	0	0	3	3	0	11	0	11	0	0	0	0	**10**	19	0	29	43
03:30 PM	0	0	3	3	0	**14**	0	**14**	0	0	0	0	5	10	0	15	32
03:45 PM	0	0	1	1	0	5	0	5	0	0	0	0	1	12	0	13	19
Total Volume	0	0	15	15	0	38	1	39	0	0	0	0	24	63	0	87	141
% App. Total	0	0	100		0	97.4	2.6		0	0	0		27.6	72.4	0		
PHF	.000	.000	.469	.469	.000	.679	.250	.696	.000	.000	.000	.000	.600	.716	.000	.725	.750

Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
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Counted By:KC, TO
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Weather:Clear

File Name : SandIslPkwy U-Turns PM
Site Code : 00000001
Start Date : 11/25/2014
Page No : 1

Groups Printed- Unshifted

	Southbound	Westbound	Northbound	Sand Island Parkway Left = U-Turns Eastbound					
Start Time	App. Total	App. Total	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
02:45 PM	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	1	0	0	0	1	1
03:30 PM	0	0	0	1	0	0	0	1	1
03:45 PM	0	0	0	2	0	0	0	2	2
Total	0	0	0	4	0	0	0	4	4
04:00 PM	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	1	0	0	0	1	1
05:15 PM	0	0	0	1	0	0	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	0	0	2	2
Grand Total	0	0	0	6	0	0	0	6	6
Apprch %				100	0	0	0		
Total %	0	0	0	100	0	0	0	100	

	Southbound	Westbound	Northbound	Sand Island Parkway Left = U-Turns Eastbound				
Start Time	App. Total	App. Total	App. Total	Left	Thru	Right	App. Total	Int. Total
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								
03:00 PM	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	1	0	0	1	1
03:30 PM	0	0	0	1	0	0	1	1
03:45 PM	0	0	0	**2**	0	0	**2**	**2**
Total Volume	0	0	0	4	0	0	4	4
% App. Total				100	0	0		
PHF	.000	.000	.000	.500	.000	.000	.500	.500

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.

"Highway Capacity Manual," Transportation Research Board, 2000.

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.

"Highway Capacity Manual," Transportation Research Board, 2000.

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	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	5	3	13	8	0	31	77	305	18	4	69	855
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
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95			1.00	0.95
Frpb, ped/bikes		0.99			1.00	1.00	1.00	1.00			1.00	1.00
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00			1.00	1.00
Frt		0.92			1.00	0.85	1.00	0.99			1.00	1.00
Flt Protected		0.99			0.95	1.00	0.95	1.00			0.95	1.00
Satd. Flow (prot)		1672			1203	1077	1570	3113			1570	3128
Flt Permitted		0.92			1.00	1.00	0.95	1.00			0.95	1.00
Satd. Flow (perm)		1551			1267	1077	1570	3113			1570	3128
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	0.82
Adj. Flow (vph)	6	4	16	10	0	38	94	372	22	5	84	1043
RTOR Reduction (vph)	0	15	0	0	0	36	0	4	0	0	0	2
Lane Group Flow (vph)	0	11	0	0	10	2	94	390	0	0	89	1064
Confl. Peds. (#/hr)			4									
Heavy Vehicles (%)	2%	2%	2%	50%	50%	50%	15%	15%	15%	15%	15%	15%
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	Prot	NA
Protected Phases		8			4		1	6		5	5	2
Permitted Phases	8			4		4						
Actuated Green, G (s)		3.5			3.5	3.5	7.0	32.7			6.9	32.6
Effective Green, g (s)		3.5			3.5	3.5	7.0	32.7			6.9	32.6
Actuated g/C Ratio		0.06			0.06	0.06	0.12	0.56			0.12	0.56
Clearance Time (s)		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
Lane Grp Cap (vph)		93			76	64	189	1752			186	1755
v/s Ratio Prot							c0.06	0.13			0.06	c0.34
v/s Ratio Perm		0.01			c0.01	0.00						
v/c Ratio		0.12			0.13	0.04	0.50	0.22			0.48	0.61
Uniform Delay, d1		25.8			25.9	25.7	23.9	6.3			23.9	8.5
Progression Factor		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	0.1			1.9	0.6
Delay (s)		26.4			26.6	25.9	26.0	6.4			25.9	9.1
Level of Service		C			C	C	C	A			C	A
Approach Delay (s)		26.4			26.1			10.2				10.4
Approach LOS		C			C			B				B

Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	58.1	Sum of lost time (s)	15.0
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	19
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, 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)	0
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)	
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	

Intersection Summary			
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	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
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95			1.00	0.95
Frpb, ped/bikes		1.00			1.00	1.00	1.00	1.00			1.00	1.00
Flpb, ped/bikes		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	0.98
Flt Protected		0.96			0.96	1.00	0.95	1.00			0.95	1.00
Satd. Flow (prot)		1755			1583	1404	1719	3437			1719	3357
Flt Permitted		1.00			1.00	1.00	0.95	1.00			0.95	1.00
Satd. Flow (perm)		1825			1652	1404	1719	3437			1719	3357
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		Perm	NA	Perm	Prot	NA		Prot	Prot	NA
Protected Phases		4			8		5	2		1	1	6
Permitted Phases	4			8		8						
Actuated Green, G (s)		3.4			3.4	3.4	0.9	26.1			2.7	27.9
Effective Green, g (s)		3.4			3.4	3.4	0.9	26.1			2.7	27.9
Actuated g/C Ratio		0.07			0.07	0.07	0.02	0.55			0.06	0.59
Clearance Time (s)		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
Lane Grp Cap (vph)		131			119	101	32	1900			98	1984
v/s Ratio Prot							0.00	c0.21			c0.03	0.14
v/s Ratio Perm		c0.01			0.00	0.00						
v/c Ratio		0.10			0.07	0.05	0.09	0.37			0.58	0.24
Uniform Delay, d1		20.5			20.4	20.4	22.7	5.9			21.7	4.6
Progression Factor		1.00			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	0.1
Delay (s)		20.8			20.7	20.6	24.0	6.1			30.2	4.6
Level of Service		C			C	C	C	A			C	A
Approach Delay (s)		20.8			20.6			6.1				7.4
Approach LOS		C			C			A				A

Intersection Summary			
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
Lane Configurations	
Volume (vph)	60
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt 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%
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)	
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	
Intersection Summary	

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

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ERNEST Y. W. 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

RECEIVED
FEB 02 2015
WILSON OKAMOTO CORPORATION

EM

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. W. LAU, P.E.
Manager and Chief Engineer

WILSON OKAMOTO CORPORATION

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

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, Hawai'i 96843

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. 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

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 768-4567
Web site: www.honolulu.gov

KIRK CALDWELL
MAYOR

ROBERT J. KRONING, P.E.
DIRECTOR

MARK YONAMINE, P.E.
DEPUTY DIRECTOR

EM

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 334.
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,

Robert J. Kroning, P.E.
Director

RJK: cf (591168)

WILSON OKAMOTO CORPORATION

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Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone: 808.946.2277
Fax: 808.946.2253
www.wilsonokamoto.com

10056-01
May 1, 2015

Mr. Robert J. Kroning, P.E.
Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawai'i 96813

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. 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, 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 • AREA CODE 808 • PHONE: 768-7762 • FAX: 768-7792

KIRK CALDWELL
MAYOR

GARY K. NAKATA
ACTING DIRECTOR

December 19, 2014

Mr. Earl Matsukawa, AICP
Wilson Okamoto Corporation
Artesian Plaza, Suite 400
1907 South Beretania Street
Honolulu, Hawaii 96826

RECEIVED
DEC 29 2014
WILSON OKAMOTO CORPORATION

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

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Honolulu, Hawaii, 96826 USA
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10056-01
May 1, 2015

Mr. Gary Nakata
Acting Director
City and County of Honolulu
Department of Community Services
715 South King St.
Honolulu, Hawai'i 96813

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. 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

From: Takeuchi, Thomas K. [mailto:ttakeuchi@honolulu.gov]
Sent: Tuesday, January 06, 2015 2:05 PM
To: Wilson Okamoto Corporation
Cc: Sugihara, Tyler; Yoneda, Lan; Sasamura, Ross; Manglallan, 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)

WILSON OKAMOTO CORPORATION

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www.wilsonokamoto.com

10056-01
May 1, 2015

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 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. 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

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
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EM

KIRK CALDWELL
MAYOR

GEORGE I. 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

RECEIVED
JAN 08 2015
WILSON OKAMOTO CORPORATION

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,

for George I. Atta, FAICP
Director

WILSON OKAMOTO CORPORATION

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

Mr. George I. Atta, FAICP
Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street, 7th Floor
Honolulu, Hawai'i 96813

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. 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) 768-3003 • Fax: (808) 768-3053
Website: www.honolulu.gov

KIRK CALDWELL
MAYOR

MICHELE K. NEKOTA
DIRECTOR

JEANNE C. ISHIKAWA
DEPUTY DIRECTOR

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)

WILSON OKAMOTO CORPORATION

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

Ms. Michele Nekota
Director
Department of Parks and Recreation
City and County of Honolulu
1000 Uluohia Street, Suite 309
Kapolei, Hawai'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 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, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8305 • Fax: (808) 768-4730 • Internet: www.honolulu.gov

EM

KIRK CALDWELL
MAYOR

MICHAEL D. FORMBY
DIRECTOR

MARK N. GARRITY, AICP
DEPUTY DIRECTOR

TP12/14-591280R

December 30, 2014

RECEIVED
DEC 30 2014
WILSON OKAMOTO CORPORATION

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,

for Michael D. Formby
Director

WILSON OKAMOTO CORPORATION

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, 3rd Floor
Honolulu, Hawai'i 96813

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. 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 Kalihi 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

KIRK CALDWELL
MAYOR

MANUEL P. NEVES
FIRE CHIEF

LIONEL CAMARA JR.
DEPUTY FIRE CHIEF

EM
KC

December 31, 2014

Mr. Earl Matsukawa, AICP
Project Manager
Wilson Okamoto Corporation
1907 South Beretania Street
Suite 400, Artesian Plaza
Honolulu, Hawaii 96826

RECEIVED
JAN 05 2015
WILSON OKAMOTO CORPORATION

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]™, 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™, 2006 Edition, Section 18.2.3.2.1.)

2. A water supply approved by the county, capable of supplying the

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™, 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™, 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

SOCRATES D. BRATAKOS
Assistant Chief

SDB/SY:bh

WILSON OKAMOTO CORPORATION

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

Mr. Socrates D. Bratakos
Assistant Chief
Honolulu Fire Department
636 South Street
Honolulu, Hawai'i 96813-5007

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 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

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; JNakagaw@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 Hawaii SOEST and METC Facilities Relocation Project located along Kalihi 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 US, 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 Kalihi 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

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

WILSON OKAMOTO CORPORATION

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Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone: 808.946.2277
Fax: 808.946.2253
www.wilsonokamoto.com

10056-01
May 1, 2015

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, Hawai'i 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 334
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 sands, which are well drained. Surveys conducted for the forthcoming EA found no 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: Tsuyemura, Mark [mailto:mtsuyemura@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.

WILSON OKAMOTO CORPORATION

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

Mr. Mark Tsuyemura
mtsuyemura@honolulu.gov
Honolulu Police Department
City and County of Honolulu
801 S. Beretania St.
Honolulu, Hawai'i 96813

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. 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,

Earl Matsukawa, AICP
Project Manager

cc: Mr. Maynard Young, UH-OCI
Mr. Alexander "Sandy" Shor, UH-SOEST

HAWAI'I GAS
THE CLEAN ENERGY COMPANY

EM

January 15, 2015

RECEIVED
JAN 21 2015
WILSON OKAMOTO CORPORATION

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:krs
15-100

WILSON OKAMOTO CORPORATION
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

Mr. Keith Yamamoto
Manager, Engineering
Hawai'i Gas
515 Kamakee Street
Honolulu, Hawai'i 96814

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. 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

Hawaiian Telcom

December 21, 2014

RECEIVED
DEC 29 2014
WILSON OKAMOTO 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 [Kalihi]

WILSON OKAMOTO CORPORATION
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

Mr. Jon Uyehara
Senior Manager – OSP Engineering
Hawaiian Telcom, Network Engineering & Planning
P.O. Box 2200
Mail Code: HIA10
Honolulu, Hawai'i 96826

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. 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]
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

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WILSON OKAMOTO CORPORATION
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

Mr. Rouen Q. W. Liu
Permits Engineer
Hawaiian Electric Company
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

DAVID Y. IGE
GOVERNOR

KERRY K. YONESHIGE
Comptroller

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

DEC 18 2014

RECEIVED
DEC 22 2014

(P)1375.4

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

WILSON OKAMOTO CORPORATION
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

Ms. Kerry Yoneshige
Comptroller
Department of Accounting and General Services
State of Hawaii
P.O. Box 119
Honolulu, Hawai'i 96810-0119

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 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

DAVID Y. IGE
GOVERNOR OF HAWAII

CARTY S. CHANG
ACTING CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

FIRST DEPUTY

WILLIAM M. TAM
INTERIM DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

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 via email: woc@wilsonokamoto.com
Honolulu, HI 96826

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. 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. IGE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

JESSE K. SOUKI
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 11, 2014

RECEIVED
DEC 12 2014
AQUATIC RESOURCES

DAR #5045

JKV
MF

MEMORANDUM

TO: **DLNR 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 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 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.
(X) Comments are attached.

Signed:
Print Name: William J. Aila Jr.
Date: 12/29/14

2015 JAN -7 P1 2:24

DAVID Y. IGE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

JESSE K. SOUKI
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

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

DATE: 12/26/14

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
	12/11/2014	12/12/2014	12/15/2014	1/2/2015

Requested by: Russell Y. Tsuji, Land Administrator

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.

DAVID Y. IGE
GOVERNOR OF HAWAII

CARTY S. CHANG
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

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 via email: woc@wilsonokamoto.com
Honolulu, HI 96826

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
Land Administrator

Enclosure(s)

DAVID Y. IGE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

JESSE K. SOUKI
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
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CONSERVATION AND COASTAL LANDS
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LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 11, 2014

MEMORANDUM

FROM TO:

DLNR 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

TO FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: 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 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.
(x) 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: Barry Cheung
Print Name: BARRY CHEUNG
Date: 12/19/14

DAVID Y. IGE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

JESSE K. SOUKI
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
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CONSERVATION AND COASTAL LANDS
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HISTORIC PRESERVATION
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LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 11, 2014

2014 DEC 16 PM 2:58

RECEIVED
LAND DIVISION

MEMORANDUM

TO: **DLNR 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 Hawai`i, SOEST and METC Facilities at Sand Island
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APPLICANT: University of Hawaii, by its consultant Wilson Okamoto Corporation

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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.
(X) We have no comments.
( ) Comments are attached.

Signed: [signature]
Print Name: Edward R. Underwood
Date: 12/15/14

DEC15'14-AM10:37BOR DLN

DAVID Y. IGE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

JESSE K. SOUKI
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AQUATIC RESOURCES
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LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 11, 2014

'14 DEC 12 PM 2:15 ENGINEERING

2014 DEC 23 PM 3:15

RECEIVED
LAND DIVISION

MEMORANDUM

~~TO~~: FR: **DLNR 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~~: TO: Russell Y. Tsuji, Land Administrator
SUBJECT: 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 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.
(X) Comments are attached.

Signed: [signature]
Print Name: Carty S. Chang, Chief Engineer
Date: 12/23/14

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 Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

(X) Mr. Mario Siu 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: _____

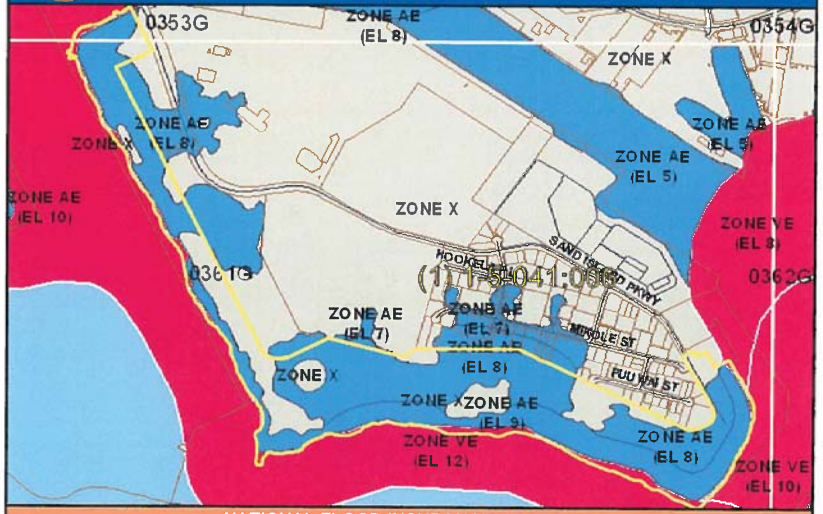
Should you have any questions, please call Mr. Dennis Imada of the Planning Branch at 587-0257.

Signed: _____
for CARTY S. CHANG, CHIEF ENGINEER

Date: 12/23/14

State of Hawaii

FLOOD HAZARD ASSESSMENT REPORT



NATIONAL FLOOD INSURANCE PROGRAM

FLOOD ZONE DEFINITIONS

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD – 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:

- **Zone A:** No BFE determined.
- **Zone AE:** BFE determined.
- **Zone AH:** Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
- **Zone AO:** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.
- **Zone V:** Coastal flood zone with velocity hazard (wave action); no BFE determined.
- **Zone VE:** Coastal flood zone with velocity hazard (wave action); BFE determined.
- **Zone AEF:** 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.

NON-SPECIAL FLOOD HAZARD AREA – An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

- **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.
- **Zone X:** Areas determined to be outside the 0.2% annual chance floodplain.

OTHER FLOOD AREAS

- **Zone D:** Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

PROPERTY INFORMATION

COUNTY:	HONOLULU
TMK NO:	(1) 1-5-041-006
PARCEL ADDRESS:	1640 SAND ISLAND PKWY HONOLULU, HI 96819
FIRM INDEX DATE:	NOVEMBER 05, 2014
LETTER OF MAP CHANGE(S):	NONE
FEMA FIRM PANEL(S):	15003C0361G-JANUARY 19, 2011 15003C0353G-JANUARY 19, 2011
PARCEL DATA FROM:	APRIL 2014
IMAGERY DATA FROM:	MAY 2006

IMPORTANT PHONE NUMBERS

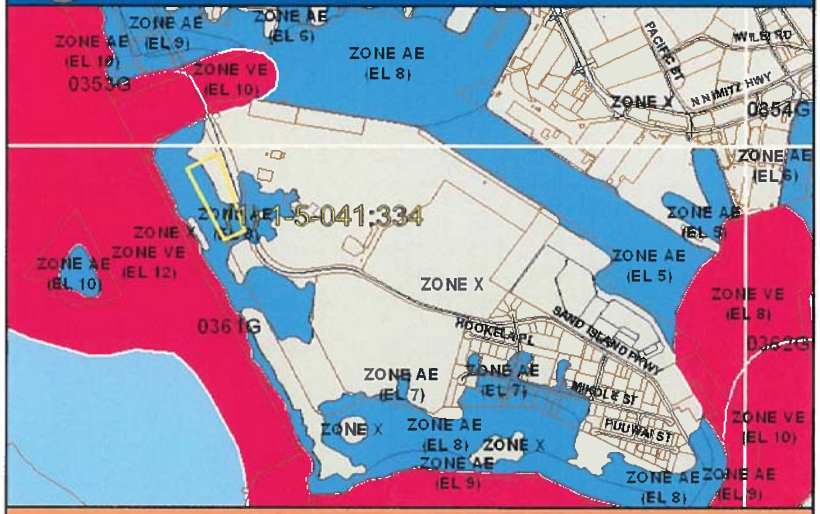
County NFIP Coordinator	
City and County of Honolulu	
Mario Siu-Li, CFM	(808) 768-8098
State NFIP Coordinator	
Carol Tyau-Beam, P.E., CFM	(808) 587-0267

Disclaimer: The Department of Land and Natural Resources (DLNR) assumes no responsibility arising from the use of the information contained in this report. Viewers/Users are responsible for verifying the accuracy of the information and agree to indemnify the DLNR from any liability, which may arise from its use.

If this map has been identified as 'PRELIMINARY' or 'UNOFFICIAL', please note that it is being provided for informational purposes and is not to be used for official/legal decisions, regulatory compliance, or flood insurance rating. Contact your county NFIP coordinator for flood zone determinations to be used for compliance with local floodplain management regulations.

State of Hawaii

FLOOD HAZARD ASSESSMENT REPORT



NATIONAL FLOOD INSURANCE PROGRAM

FLOOD ZONE DEFINITIONS

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD – 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:

- **Zone A:** No BFE determined.
- **Zone AE:** BFE determined.
- **Zone AH:** Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
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- **Zone AEF:** 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.

NON-SPECIAL FLOOD HAZARD AREA – An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

- **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.
- **Zone X:** Areas determined to be outside the 0.2% annual chance floodplain.

OTHER FLOOD AREAS

- **Zone D:** Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

PROPERTY INFORMATION

COUNTY:	HONOLULU
TMK NO:	(1) 1-5-041-334
PARCEL ADDRESS:	
FIRM INDEX DATE:	NOVEMBER 05, 2014
LETTER OF MAP CHANGE(S):	NONE
FEMA FIRM PANEL(S):	15003C0361G
PANEL EFFECTIVE DATE:	JANUARY 19, 2011
PARCEL DATA FROM:	APRIL 2014
IMAGERY DATA FROM:	MAY 2006

IMPORTANT PHONE NUMBERS

County NFIP Coordinator	
City and County of Honolulu	
Mario Siu-Li, CFM	(808) 768-8098
State NFIP Coordinator	
Carol Tyau-Beam, P.E., CFM	(808) 587-0267

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WILSON OKAMOTO CORPORATION

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

Mr. Russell Y. Tsuji
Land Administrator
Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, Hawai'i 96809

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. 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.

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

CARTY S. CHANG
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

FIRST DEPUTY

WILLIAM M. TAM
INTERIM DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
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KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

EM

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

DIVISION OF STATE PARKS
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

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, Hawai'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

WILSON OKAMOTO CORPORATION
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

Mr. Daniel S. Quinn
Administrator
Department of Land and Natural Resources
Division of State Parks
P.O. Box 621
Honolulu, Hawai'i 96809

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. 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

KEITH YAMAMOTO
DIRECTOR OF HEALTH

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

In reply, please refer to:
EMD/CWB

12048PJF.14

December 24, 2014

Mr. Earl Matsukawa, AICP
Project Manager
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

RECEIVED
DEC 29 2014
WILSON OKAMOTO CORPORATION

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.

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).

   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.

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,

Darryl Lum TA for AW

ALEC WONG, P.E., CHIEF
Clean Water Branch

JF:bk

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10056-01
May 1, 2015

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.

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

VIRGINIA PRESSLER, M.D.
DIRECTOR OF HEALTH

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

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

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/epo/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/cwb/site-map/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

c: CWB, HEER {via email only}

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10056-01
May 1, 2015

Ms. Laura Leialoha Phillips McIntyre, AICP
Program Manager
Department of Health
Environmental Planning Office
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 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 Hawai'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

FORD N. FUCHIGAMI
DIRECTOR

Deputy Directors
JADE T. BUTAY
ROSS M. HIGASHI
EDWIN H. SNIFFEN

IN REPLY REFER TO:

STP 8.1733

January 6, 2015

Mr. Earl Matsukawa, AICP
Project Manager
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

RECEIVED
JAN 16 2015
WILSON OKAMOTO CORPORATION

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 propose 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.

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

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10056-01
May 1, 2015

Mr. Ford Fuchigami, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawai'i 96813-5097

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 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

FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
560 N. NIMITZ HWY., SUITE 200
HONOLULU, HAWAI'I 96817

HRD 14/7327

January 9, 2015

RECEIVED
JAN 28 2015
WILSON OKAMOTO CORPORATION

Mr. Earl Matsukawa
Project Manager
Wilson Okamoto Corporation
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawai'i 96826

Re: Pre-Assessment Consultation for an Environmental Assessment (EA), University of Hawai'i SOEST and METC Facilities at Sand Island, Honolulu, O'ahu, Hawai'i
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 Hawai'i 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 Hawai'i 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.

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.

'O wau iho nō me ka 'oia 'i'o,

Kamana'opono M. Crabbe, Ph.D.
Ka Pouhana, Chief Executive Officer

KC:jbn

C: Maynard Young, UH-OCI
Alexander Shor, UH-SOEST

WILSON OKAMOTO CORPORATION

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10056-01
May 1, 2015

Kamana'opono M. Crabbe, Ph.D.
Ka Pouhana, Chief Executive Officer
Office of Hawaiian Affairs
560 N. Nimitz Hwy., Suite 200
Honolulu, Hawai'i 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

DAVID Y. IGE
GOVERNOR

LEO R. ASUNCION
ACTING DIRECTOR
OFFICE OF PLANNING

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

Telephone: (808) 587-2846
Fax: (808) 587-2824
Web: http://planning.hawaii.gov/

Ref. No. P-14615

December 22, 2014

RECEIVED
DEC 29 2014
WILSON OKAMOTO CORPORATION

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 TMK: (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,

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/dbedt/op/czm/initiative/stomwater_imapct/final_stormwater_impact_assessments_guidance.pdf.

If you have any questions regarding this comment letter, please contact Josh Hekekia of our office at 587-2845.

Sincerely,

Leo R. Asuncion
Acting Director

WILSON OKAMOTO CORPORATION

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10056-01
May 1, 2015

Mr. Leo Asuncion
Acting Director
Office of Planning
State of Hawaii
235 South Beretania Street, 6th Floor
Honolulu, Hawai'i 96813

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. 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 Hawai'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 Hawai'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.

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

CARTY S. CHANG
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

January 6, 2015

Russell Y. Tsuji, Administrator
Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, HI 96809

LOG NO.: 2014.05538
DOC NO.: 1501GC02
Archaeology

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 por., 334 por.

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 Snug 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 if you have any questions or concerns regarding this letter.
Aloha,

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)

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10056-01
May 1, 2015

Ms. Susan Lebo, O'ahu Lead Archaeologist
Department of Land and Natural Resources
State Historic Preservation Division
Kakuhihewa Building
601 Kamokila Blvd., STE 555
Kapolei, Hawai'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

Earl Matsukawa, AICP
Project Manager

cc: Mr. Maynard Young, UH-OCI
Mr. Alexander "Sandy" Shor, UH-SOEST

APPENDIX F:

Draft EA
Comment and Response Letters

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 96801-3378

In reply, please refer to:
File:

EPO 15-124

June 19, 2015

Mr. Maynard Young
University of Hawaii
Manager, Facilities Planning and Design
Office of Capital Improvements
1960 East West Road, Biomedical Sciences B-102
Honolulu, Hawaii 96822
Via email: maynardy@hawaii.edu

Dear Mr. Pang:

SUBJECT: Draft Environmental Assessment (DEA) for the University of Hawaii School of Ocean and Earth Science and Technology (SOEST) and Marine Education Training Center (METC) Facilities at Sand Island
TMK: (1) 1-5-041: portions of 006 and 334, Honolulu, Hawaii

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your DEA to our office on May 23, 2015. Thank you for allowing us to review and comment on the proposed SOEST and METC Facilities at Sand Island available on the OEQC website at:

http://oeqc.doh.hawaii.gov/Shared%20Documents/EA_and_EIS_Online_Library/Oahu/2010s/2015-05-23-OA-5B-DEA-UH-SOEST-and-METC-Facilities-at-Sand-Island.pdf

The DEA was routed to various branches. The various branches will provide specific comments to you if necessary. EPO recommends that you review the standard comments and available strategies to support sustainable and healthy design provided at: http://health.hawaii.gov/epo/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 revised Water Quality Standards Maps that have been updated for all islands. The Water Quality Standards Maps can be found at: http://health.hawaii.gov/cwb/site-map/clean-water-branch-home-page/water-quality-standards/.

We request that you utilize all of this information on your proposed project to increase sustainable, innovative, inspirational, transparent and healthy design.

Mahalo nui loa,

Laura Leialoha Phillips McIntyre, AICP
Program Manager, Environmental Planning Office

c: Earl Matsukawa, Wilson Okamoto Corporation {via email: ematsukawa@wilsonokamoto.com}
CWB, HEER {via email}

WILSON OKAMOTO CORPORATION
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10056-01
August 8, 2015

Ms. Laura Leialoha Phillips McIntyre, AICP
Program Manager
Department of Health
Environmental Planning Office
P.O. Box 3378
Honolulu, Hawai'i 96801-3378

Subject: Draft Environmental Assessment (EA)
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 Ms. McIntyre:

Thank you for your letter dated June 19, 2015 (EPO 15-124) commenting on the subject Draft Environmental Assessment (EA). 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 Hawai'i Environmental Health Portal will be utilized as a reference resource throughout the design process for the subject project.

Your letter, along with this response, will be reproduced and included in the forthcoming Final EA Finding of No Significant Impact (FEA-FONSI). We appreciate your participation in the environment 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

FORD N. FUCHIGAMI
DIRECTOR

Deputy Directors
JADE T. BUTAY
ROSS M. HIGASHI
EDWIN H. SNIFFEN
DARRELL T. YOUNG

IN REPLY REFER TO:
STP 8.1821

June 29, 2015

RECEIVED
JUL 07 2015
WILSON OKAMOTO CORPORATION

Mr. Earl Matsukawa, AICP
Project Manager
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Matsukawa:

Subject: Draft Environmental Assessment – Findings of No Significant Impact (FONSI)
University of Hawaii, School of Ocean and Earth Science and Technology (SOEST) and Marine Education Training Center (METC) Facilities
Sand Island, Oahu
TMK: (1) 1-5-041:006 (por.) and 334 (por.)

The Department of Transportation (DOT) previously commented on the subject project during the Pre-Assessment Consultation (STP 8.1733, 1/6/15), and acknowledge your response (10056-01, 5/1/15). Both letters are included in the Appendix E of the Draft Environmental Assessment (DEA). We have the following supplemental comments:

Airports Division (DOT-AIR)

We note your acknowledgement that the proposed development will be subject to aircraft overflights and noise due to its proximity to the approach/departure surface for the Honolulu International Airport (HNL), and statement that there are no plans to develop classrooms or other noise sensitive uses on the project site.

We also note your statement that the applicant will file a FAA Form 7460-1, "Notice of Proposed Construction or Alteration" with the Federal Aviation Administration (FAA). This should be added to the list of permits, approvals and reviews that may be required prior to construction and operation of the proposed project under Section 4.3 of the DEA.

Harbors Division (DOT-HAR)

We reiterate that since the proposed project shares a common ingress and egress corridor along Sand Island Parkway with a Matson storage area on an adjacent lot, Matson should be consulted.

Highways Division (DOT-HWY)

We acknowledge that a Traffic Impact Report (TIR) has been prepared and is included in Appendix D of the DEA. DOT-HWY is currently reviewing the TIR; upon completion of our review, comments will be submitted to you.

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

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10056-01
August 8, 2015

Mr. Ford Fuchigami, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawai'i 96813-5097

Subject: Environmental Assessment (EA)
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 Director:

Thank you for your letter dated June 29, 2015 (STP 8.1821) regarding the subject pre-assessment consultation. We offer the following response to your comments:

Airports Division (DOT-AIR)

Thank you for recommending that the FAA Form 7460-1 "Notice of Proposed Construction or Alteration" be added to the list of permits, approvals and reviews that may be required for the construction of the proposed project under Section 4.3 of the Environmental Assessment. It will be included, accordingly, in the Final EA.

Harbors Division (DOT-HAR)
Matson has been contacted regarding the proposed project and availability of the Draft EA for review. While we have yet to hear back from them, we will follow-up on any concerns they may have regarding the proposed project.

Highways Division (DOT-HWY)
We acknowledge that DOT-HWY is reviewing the subject Traffic Impact Report (TIR), and look forward to any comments they may have.

Your letter, along with this response, will be reproduced and included in the forthcoming Final Environmental Assessment – Finding of No Significant Impact (FEA-FONSI). We appreciate your participation in the environmental 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

Final Environmental Assessment

Wilson Okamoto Corporation

Engineers & Planners
1907 South Beretania Street, Suite 400
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