

DRAFT
ENVIRONMENTAL ASSESSMENT

FOR THE

HANUA STREET CONTAINMENT CAP AND BARRIER

AT

JAMES CAMPBELL INDUSTRIAL PARK
91-008 HANUA STREET
KAPOLEI, OAHU, HAWAII

TMK: 9-1-26: 26

September 2008

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TABLE OF CONTENTS

1.0	SUMMARY	1-1
2.0	DESCRIPTION OF THE PROPOSED ACTION	2-1
2.1	PROJECT OVERVIEW	2-1
2.2	PROJECT BACKGROUND.....	2-1
2.3	PROJECT DESCRIPTION.....	2-3
3.0	DESCRIPTION OF THE AFFECTED ENVIRONMENT.....	3-1
3.1	OVERVIEW	3-1
3.2	PHYSICAL ENVIRONMENT.....	3-1
3.2.1	General Setting	3-1
3.2.2	Climate.....	3-1
3.2.3	Air Quality and Noise Levels	3-1
3.2.4	Geology	3-2
3.2.5	Soils.....	3-3
3.2.6	Topography and Slopes	3-4
3.2.7	Hydrology and Drainage	3-4
3.2.8	Groundwater Resources	3-5
3.3	BIOLOGICAL ENVIRONMENT	3-6
3.3.1	Flora	3-6
3.3.2	Fauna	3-7
3.3.3	Aquatic Habitat	3-7
3.4	SOCIO-ECONOMIC ENVIRONMENT	3-8
3.4.1	Population.....	3-8
3.4.2	Existing Land Use	3-8
3.4.3	Recreation.....	3-9
3.4.4	Scenic and Visual Resources.....	3-9
3.4.5	Archaeological and Historical Resources	3-9
3.4.6	Infrastructure	3-10
3.4.7	Economic Considerations.....	3-11
4.0	THE RELATIONSHIP OF THE PROPOSED ACTION TO LAND USE PLANS, POLICIES AND CONTROLS FOR THE AFFECTED AREA.....	4-1
4.1	OVERVIEW	4-1
4.2	POLICY PLANS	4-1
4.2.1	Overview of Policy Plans.....	4-1
4.2.2	Hawaii State Plan	4-1
4.2.3	General Plan of the City and County of Honolulu	4-3
4.2.4	State Environmental Policy	4-4
4.2.3	Hawaii Administrative Rules.....	4-5

TABLE OF CONTENTS (continued)

4.3	PROJECT PERMIT REQUIREMENTS.....	4-6
4.3.1	Federal Permits	4-7
4.3.2	State of Hawaii Permits	4-7
4.3.3	City and County of Honolulu.....	4-10
5.0	SUMMARY OF PROBABLE IMPACTS OF THE PROPOSED ACTION AND PROPOSED MITIGATION MEASURES.....	5-1
5.1	OVERVIEW.....	5-1
5.2	PHYSICAL ENVIRONMENT	5-1
5.2.1	Air Quality and Noise Levels.....	5-1
5.2.2	Soils	5-2
5.2.3	Topography and Slopes	5-3
5.2.4	Hydrology and Drainage.....	5-3
5.2.5	Groundwater Resources.....	5-4
5.3	BIOLOGICAL ENVIRONMENT	5-4
5.3.1	Flora	5-4
5.3.2	Fauna.....	5-5
5.3.3	Aquatic Habitat.....	5-5
5.4	SOCIAL ENVIRONMENT.....	5-6
5.4.1	Population	5-6
5.4.2	Existing Land Use	5-6
5.4.3	Recreation	5-6
5.4.4	Scenic and Visual Resources	5-6
5.4.5	Archaeological and Historical Resources.....	5-7
5.4.6	Infrastructure	5-7
5.4.7	Economic Considerations	5-7
6.0	ALTERNATIVES TO THE PROPOSED ACTION.....	6-1
6.1	OVERVIEW OF ALTERNATIVES.....	6-1
7.0	FINDINGS SUPPORTING THE ANTICIPATED DETERMINATION.....	7-1
7.1	SIGNIFICANCE CRITERIA	7-1
7.2	ANTICIPATED DETERMINATION	7-3
8.0	AGENCY AND ORGANIZATION CONSULTATION AND REVIEW	8-1
8.1	PRELIMINARY CONSULTATION ACTIVITIES	8-1
8.2	DRAFT ENVIRONMENTAL ASSESSMENT REVIEW	8-2
9.0	REFERENCES	9-1

FIGURES

- Figure 1 Project Location Map
- Figure 2 Site and Surrounding Areas Aerial Photograph
- Figure 3 Site Aerial Photograph
- Figure 4 Site Map Showing Proposed Containment Cap, Barrier, Excavation and Nourishment Locations
- Figure 5 Proposed Containment Cap and Barrier Conceptual Model
- Figure 6 Median Annual Rainfall and Surface Wind Map
- Figure 7 Soils Map
- Figure 8 FEMA Flood Map
- Figure 9 Aquifer Identification Map
- Figure 10 Shoreline Area Photographs
- Figure 11 Excavation and Nourishment Area Photographs
- Figure 12 State Land Use Map

APPENDICES

- Appendix A Department of Health Letter Regarding Remedial Alternative Selection
- Appendix B Pre-Assessment Consultation Letter and Comments Received

LIST OF ACRONYMS

BMP	Best Management Practice
CCH	City and County of Honolulu
COEM	Coastal Erosion Management Plan
CWB	Clean Water Branch (State of Hawaii)
DLNR	Department of Land and Natural Resources (State of Hawaii)
DOH	Department of Health (State of Hawaii)
DPP	Department of Planning and Permitting (City & County of Honolulu)
EA	Environmental Assessment
EIS	Environmental Impact Statement
ECP	Exposure Contingency Plan
EMRP	Exposure Monitoring and Reporting Plan
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
HAR	Hawaii Administrative Rules
HCZMP	Hawaii Coastal Zone Management Program
HEER	Hazard Evaluation and Emergency Response (State of Hawaii)
HRS	Hawaii Revised Statutes
LAW	Leeward Auto Wreckers
LUO	Land Use Ordinance (City & County of Honolulu)
MFA	Masa Fujioka & Associates
NEPA	National Environmental Policy Act
NOAA	National Oceanic & Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
OCCL	Office of Conservation and Coastal Lands (State of Hawaii)
OEQC	Office of Environmental Quality Control (State of Hawaii)
OSP	Office of State Planning (State of Hawaii)
PPE	Personal Protective Equipment
PRGs	Preliminary Remedial Goals
RAA	Remedial Alternative Analysis
RAM	Remedial Alternative Memorandum
RAOs	Remedial Action Objectives
SHPD	State Historic Preservation Division (State of Hawaii)
SMA	Shoreline Management Area
SMP	Special Management Area Permit
SSA	Shoreline Setback Area
SSV	Shoreline Setback Variance
UH	University of Hawaii

UIC	Underground Injection Control
USBC	United States Bureau of the Census
USDA	United States Department of Agriculture
USFWS	United States Fish & Wildlife Service
USGS	United States Geological Survey

1.0 SUMMARY

The applicant and landowner's proposed project is a remedial action to address ash-impacted soil at the subject property. The Hawaii Department of Health (DOH) Office of Hazard Evaluation and Emergency Response (HEER) has concurred with the applicant and landowner's proposed remedy of capping the affected soil to prevent direct exposure and constructing a containment barrier to prevent migration of ash-impacted material to the coastal environment. A portion of the subject property, lying makai of the certified shoreline, contains ash-impacted soil that will need to be excavated from the beach. The excavated area will be back filled following state-regulated beach nourishment guidelines. Actual or threatened releases of hazardous substances from the subject property, if not addressed by implementing the proposed remedy, may present an endangerment to public health and the environment.

The proposed project will require Federal, State and City and County of Honolulu (CCH) permits. Excavation work will be conducted in the beach, which has the potential to impact navigable waters of the United States (US). The proposed project will be conducted within a Special Management Area (SMA) which requires a Special Management Area Use Permit (SMP) and also within a Shoreline Setback Area (SSA), requiring a Shoreline Setback Variance (SSV) for construction. Construction within the SSA triggers the requirement for an Environmental Assessment (EA) under Subchapter 10, DOH, Chapter 200 of Title 11, Hawaii Administrative Rules (HAR) and Chapter 343, Hawaii Revised Statutes (HRS). This EA has been prepared to fulfill the requirements of HRS Chapter 343.

Project Name: Hanua Street Containment Cap and Barrier

Proposed Action: To install a containment cap and barrier as the remedial solution for ash-impacted soil located at the subject property. Portions of the subject property located on the beach will be excavated and back filled following state-regulated beach nourishment guidelines.

Project Location: 91-008 Hanua Street, Kapolei, HI

Tax Map Key Parcel: 9-1-026:026

Owner: Hawaii Metamorphosis, LLC

Applicant: REIT Management & Research, LLC

Approving Agency: City & County of Honolulu
Department of Planning and Permitting

EA Preparer: Masa Fujioka & Associates

Project Area: 9.572 acres

Existing/Proposed Uses: Light Industrial/Commercial

State Land Use: Urban

Zoning: I-2 Intensive Industrial District

Special Management Area: Within SMA boundary

Shoreline Set Back: Within the Shoreline Setback boundary

Anticipated Determination: Finding of No Significant Impact

Impacts: The proposed action is not anticipated to have any significant short-term or long-term negative impacts upon the environment.

Pre-Assessment Consultation: A list of agencies, individuals and community groups consulted prior to submitting this Draft EA for review is provided in Section 8.1 of this report. The pre-assessment letters were written prior to a change in the shoreline survey. The revised shoreline survey initiated the need for excavation of ash-impacted soil from the beach and subsequent beach nourishment activities.

Discussion with the DLNR and State Surveyors Office regarding this proposed project are also described in Section 8.1 of this report.

Draft Assessment Review:

A list of agencies and community groups sent a copy of this Draft EA for their review is provided in Section 8.2 of this report.

2.0 DESCRIPTION OF THE PROPOSED ACTION

2.1 PROJECT OVERVIEW

The proposed project will contain ash-impacted soil on the subject property. The proposed remedial action consists of capping the affected soil and constructing a subsurface containment barrier near the shoreline to prevent migration of ash-impacted soil to the coastal environment. A portion of the subject property, lying makai of the certified shoreline, contains ash-impacted soil that will need to be excavated from the beach. The excavated area will then be back-filled following State-regulated beach nourishment guidelines. The excavated ash-impacted soil will be placed on the subject property, mauka of the certified shoreline, and capped along with the entire subject property. This EA has been prepared to meet the HRS Chapter 343 requirements for a project constructed within the SSA. The project will begin once appropriate permits are obtained (anticipated March 2009) and will take approximately two months to complete.

2.2 PROJECT BACKGROUND

The subject property, James Campbell Industrial Park Lot 14, TMK 9-1-026:26 is located at 91-008 Hanua Street in Kapolei, Oahu, Hawaii as shown on Figure 1, Project Location Map and Figure 2, Site and Surrounding Areas Aerial Photograph. The subject property and surrounding areas are shown on Figure 3, Site Aerial photograph.

The subject property was developed in the 1960s. The neighboring property to the north was leased to Leeward Auto Wreckers (LAW) who operated an auto-wrecking facility on that plot. LAW's activities spread onto the subject property and an incinerator was operated near the center of the subject property. Automobiles were burned to remove unwanted materials (e.g., oil, paint, plastic, etc.) prior to metals recycling, and the resultant ash was disposed on the subject property (MFA, 2005). LAW conducted operations on the subject property until 1989, and the subject property has remained in continuous light industrial use by a variety of businesses since that time. The subject property is currently occupied by Mendocino Forest Products, LLC, a lumber distributor who uses the site for lumber storage. One small trailer, used for office space, and lumber is stored on northeast portions of the subject property and is surrounded by a chain-link fence. A majority of the subject property is vacant, although some concrete structures remain from former tenants.

Several soil and groundwater investigations performed in the past several years at the subject property have characterized environmental impacts from these previous activities. Approximately 6.5 acres of the subject property, centered towards the middle and seaward portions of the subject property, have buried ash deposits. The ash-impacted soil has an average thickness of approximately 2.5 feet and a maximum depth of approximately 6 feet. Reported concentrations of lead in soil ranged from below laboratory detection limits to a maximum of 39,100 milligrams per kilogram. Native soils above and below the ash-impacted soil layer were not found to contain appreciable amounts of lead. Analytical tests of leachate potential indicated that the potential for migration of contaminants from the affected soil to groundwater was low (CH2M HILL, 2004). Groundwater, which occurs at a depth of approximately 6 feet below ground surface, contained no contaminants above regulatory limits in groundwater samples collected from wells on the subject property.

A human health risk assessment, which used data collected during the investigations, identified lead as the only the contaminant of concern present at the subject property (CH2M HILL, 2004). Lead in soil, associated with the buried ash deposits, was found to be in excess of the U.S. Environmental Protection Agency (EPA) industrial Preliminary Remedial Goals (PRGs) in various locations on the subject property. Additionally, an ecological screening assessment concluded that a potential risk could exist to the marine environment if ash-impacted soil located near the beach were to erode and migrate to the near-shore beach sediment (CH2M HILL, 2004).

A Remedial Alternative Analysis (RAA) was conducted for the subject property in 2006. The RAA: presented Remedial Action Objectives (RAOs); identified several possible remedial alternatives; developed preferred remedial alternatives; and evaluated the alternatives based on the DOH's criteria of effectiveness, implementability, and cost. In addition to the No Action alternative, three potential remediation alternatives were developed: installation of a containment cap and barrier; excavation and off-subject property disposal; and soil stabilization.

A containment cap and barrier can be readily implemented with local materials and services, and creates the least disturbance of ash-impacted soil on the subject property. Due to its superior ability to be implemented, its protection of public health and the environment through engineered and institutional controls, its proven effectiveness at similar local

properties, and lowest costs, the containment cap and barrier was identified in the RAA study as the preferred remedial alternative for the subject property (MFA, 2006).

Recent changes in the certified shoreline survey have required a modification of the remedial alternative selected in 2006. The shoreline previously had been mapped at or makai of the ash-impacted soil located on the subject property in 1997. During 2007, in support of conducting this environmental assessment for the subject property, an updated shoreline survey was performed. As part of the state shoreline certification process, staff from the Department of Land and Natural Resources (DLNR) visited the subject property in August 2007. Based on debris line observations made in the field by DLNR staff, the central portion of the subject property's shoreline location was revised. The revised shoreline was moved mauka of the original surveyed shoreline by a maximum of 63 feet and increased the amount of beach on the subject property by 0.17 acres. Ash-impacted soil is located in this newly defined beach area and will need to be excavated (S. Lemmo, Personal Communication, 11/27/2007). The excavated ash-impacted soil will then be placed on the subject property and capped.

Excavating ash-impacted soil from the beach and placing it on the subject property for capping is a modification of the selected remedial alternative that does not detract from the selected alternative being the best permanent long-term remedial solution for the subject property.

Based on the RAA, a draft Response Action Memorandum (RAM) prepared in 2006 presented the remedial alternative, containment cap and barrier, for the subject property. The RAM summarized pertinent property information, documented the basis for remediation, and described the rationale for selecting the remedial alternative. The RAM was based on the results of previous subject property characterizations, risk assessments, and analysis of remedial action alternatives. The DOH HEER office was contacted about the revised shoreline survey and excavation of ash-impacted soil from the beach. DOH HEER concurred that the excavation work was a minor modification of the remedial alternative (S. Mow, Personal Communication, January 16, 2008) and a revised draft RAM is now being prepared to address this modification.

2.3 PROJECT DESCRIPTION

The proposed remedial action consists of excavating ash-impacted soil located on the beach, capping the affected soil with clean earthen materials and constructing a subsurface

containment barrier near the shoreline as shown in Figure 4, Site Map Showing Proposed Containment Cap, Barrier, Excavation and Nourishment Locations. The cap would be surfaced with asphalt. The subsurface containment barrier would be constructed near, but mauka of the shoreline, to prevent the migration of ash-impacted soil to the beach and marine waters. In addition to these containment measures, institutional controls (such as an environmental covenant) would be implemented to ensure worker safety and minimize future disturbances of the ash-impacted soils capped at the subject property.

Site Preparation: The first stage of cap construction would be subject property preparation including the implementation of erosion, drainage and dust control measures. An integrated silt fence/dust screen would be constructed at the subject property borders to prevent migration of runoff or dust to surrounding areas. The integrity of the silt fence and dust screen will be verified on a daily basis by the contractor.

A clean zone would be established and maintained at the subject property ingress and egress point located in the northeast corner of the subject property. Heavy equipment (including material transport trucks) would be washed prior to exiting the subject property, in order to remove soil from blades, buckets, tires, etc. The remainder of the subject property would be considered a “hot zone” for as long as ash-impacted soils remain exposed on the subject property. Personnel entering the hot zone would be required to wear appropriate personnel protective equipment (PPE) to prevent exposure to contaminated dust and soil.

Excavation and Nourishment of Beach Area: Approximately 1200 cubic yards of ash-impacted soil is proposed for excavation from the central portion of the subject property’s beach (Figure 4). The area to be excavated is approximately 7,350 square feet (0.17 acres) in size and will affect approximately 200 feet, or 20% of the subject property’s shoreline. Excavation from the beach will be conducted in two 100 foot lengths, in order to minimize the amount of open excavation at any one time. Prior to excavation, double silt fences would be placed around the area to be excavated in a “U” shape, allowing for access by the excavating equipment to the beach from only the non-beach portions of the subject property. Because of nearby wave action, silt fences will need to be secured in place at the beginning of each day. Excavation will proceed from the furthest point makai and progress mauka to the certified shoreline. Only the amount of excavated area that can be re-nourished on a daily basis will be removed. No open excavation will be allowed during non-working hours or storm events. Excavated areas will be back filled with clean carbonate sand from an approved

source. As excavated areas are re-nourished, the sand will be sloped to meet pre-excavation elevations and slopes. Beach profiling and daily monitoring required for a small-scale beach nourishment project will be followed as discussed below.

A site-specific Best Management Practices (BMPs) plan will be designed, implemented, operated and maintained in a manner to properly isolate, confine and control the excavation and nourishment activities and to contain and prevent any potential pollutant(s) discharges from adversely impacting State waters. A site-specific Monitoring and Assessment Plan (MAP) will also be prepared to address monitoring requirements for all required permits. Additionally, the small-scale beach nourishment permit and water quality permits will have specific conditions that also will be incorporated into the site-specific BMP and MAP.

Construction of Containment Barrier: Once the subject property is prepared, a subsurface containment barrier is proposed for construction along the southern portion of the subject property, mauka of the certified shoreline (Figure 5, Proposed Containment Cap and Barrier Conceptual Model). A trench would be dug down to the underlying coral deposits (located 4 to 6 feet below ground surface in various locations); and the surface of the coral deposit would be scarified to provide a bonding surface for the containment barrier. Groundwater is located approximately 5-6 feet from the ground surface (MFA, 2005) in these areas and therefore no construction de-watering is anticipated during the installation of the containment barrier.

The trench would be approximately 1,000 feet long and follow along the mauka side of the certified shoreline. During trenching activities, ash-impacted soils located makai of the certified shoreline would be excavated (estimated 5,000 cubic yards) and be spread onto low areas of the subject property. It would then be covered with clean earthen material, with care taken to ensure that dust or affected soil does not migrate off the subject property. An approximate one-foot-thick concrete containment barrier with footing would be poured into the trench, and keyed into the coral deposit for stability. The containment barrier would extend to match the final grade, as necessary. A conceptual model of the barrier cap and containment barrier is shown on Figure 5, Proposed Containment Cap and Barrier Conceptual Model.

Sub-Base Preparation: The existing soil surface across the subject property would be minimally graded and compacted to the satisfaction of the project engineer to provide an

acceptable sub-base. Grading would only be conducted as needed to create a generally flat final grade and to match required drainage conditions. Ash-impacted soil excavated from the beach and soil removed from the containment barrier trench excavation would be covered with clean earthen materials. Grading will be conducted using BMPs to prevent dust migration, soil erosion, and mechanical transport of the affected soil. The primary dust control measure would be application of water, which would be closely monitored in order to avoid over-application that could result in runoff leaving the subject property. Air at downwind areas of the fence line would be monitored every day that ash-impacted soil may be disturbed in order to verify and document the efficacy of dust control measures.

Due to a lack of lead in excess of the EPA PRG, and the absence of ash-impacted soil layer, the northernmost section of the subject property would not require a cap. The barrier cap would only be required in the “Extent of Proposed Cap” area shown on Figure 4, comprising approximately 6.5 acres. However, the base course and asphalt layer would be extended across the entire subject property to mitigate potential dust and to provide ease of use for future tenants. Therefore, the existing soil in the northern area would be (minimally) graded accordingly.

Construction of Cap: The prepared existing soil would comprise the first layer of the cap and serve as a buffer layer. A single layer of high-density polyethylene plastic with yellow warning tape would be installed on top of the prepared existing soil. The marker layer would warn potential future construction and/or utility crews of the potentially hazardous soil below.

Once the marker layer is in place and approved by the project engineer, a 6-inch thick layer of clean fill material with fines (i.e., base course) would be graded across the subject property, and compacted to the satisfaction of the project engineer; estimated amount of fill material is 5,250 cubic yards (compacted). Most (5,000 cubic yards) of this fill material will be provided by excavating ash-impacted soil from the beach. The cap would be surfaced with a 6-inch layer of asphaltic concrete.

Maintenance and Management Practices: In order to satisfy the long-term effectiveness RAO, several management and maintenance plans would be required. The following plans will be prepared as part of the detailed design, subject to DOH approval:

- *Exposure Monitoring and Reporting Plan (EMRP)* would describe the existing subject property conditions, including natural barriers and engineered controls,

contaminant detection and monitoring systems, and preventative maintenance measures to be employed. Such measures may include cap inspection, integrity evaluation, record keeping, and notification procedures.

- *Exposure Contingency Plan (ECP)* would be prepared as a stand-alone, action-oriented response plan. Should the subject property conditions or the EMRP provisions indicate a breach in or failure of the engineered exposure barriers, the ECP would be activated. The ECP would describe contingency response actions, including notification and record keeping requirements.

Institutional Controls: Institutional controls, in the form of an environmental covenant, would be placed upon the property. The environmental covenant would notify potential future subject property owners or operators of the nature and extent of contamination, describe the configuration of the cap and restrict disturbance of affected soil. Subject property easement holder(s) would also be similarly notified.

3.0 DESCRIPTION OF THE AFFECTED ENVIRONMENT

3.1 OVERVIEW

This section of the EA contains a description of the existing physical, biological and socio-economic environment affected by the proposed project. The physical, biological and socio-economic factors were considered during the analysis of project components, potential impacts and mitigation measures, and proposed project alternatives.

3.2 PHYSICAL ENVIRONMENT

3.2.1 General Setting

The subject property is located on the leeward coast of the island of Oahu, 9.572 acres, located at the southern terminus of Hanua Street, within James Campbell Industrial Park and as shown in Figure 1. The subject property is bound to the south by the Pacific Ocean, to the west by Drain A, to the north by Drain B, and is adjacent to another James Campbell Industrial Park Lot to the east (Figures 2, 3, and 4).

The subject property is currently occupied by Mendocino Forest Products, LLC, a lumber distributor who uses the site for lumber storage. One small trailer, used for office space, and lumber is stored on northeast portions of the subject property and is surrounded by a chain-link fence. A majority of the subject property is vacant, although some concrete structures remain from former tenants.

The subject and neighboring properties are primarily industrial, with the exception of Barber's Point Beach Park, which is located west of the subject property, across Drain A. The shoreline at the subject property, accessible to the general public, is buffered by a broad flat coralline reef at the waters' edge which meet gently sloping sandy dunes.

3.2.2 Climate

The outstanding features of the Hawaiian Islands' climate include mild and equable temperatures year round, moderate humidity, persistence of northeasterly tradewinds, remarkable differences in rainfall within short distances, and infrequency of severe storms (UH Dept. Geography, 1983). In most of Hawaii there are only two seasons. The "dry" season occurs between about May and October, the weather warmer and drier, and the tradewinds most persistent. The "wet" season occurs between about October and April, the weather

cooler, and the tradewinds more often interrupted by other winds and by intervals of widespread clouds and rain (Figure 6, Median Annual Rainfall and Surface Wind Map).

Mean annual temperature in the islands generally varies between 72° and 75°F near sea level and decreases by about 3°F for each 1,000 feet of elevation (UH Dept. Geography, 1983). Almost everywhere at low elevations the highest temperatures of the year are in the low 90s and the lowest near 50°F.

The islands' heaviest rains are brought by storms during the October-to-April season (UH Dept. Geography, 1983). The subject property receives an average annual rainfall of less than 20 inches per year, Figure 6 (Climate Source, 2002). Periodic thunderstorms can result in flooding, especially during winter months. Evaporation rates are high, approximately 80-86 inches annually, resulting from brisk tradewinds and high solar radiation. Potential impacts and mitigation measures for runoff control during construction are discussed in Section 5.2.4 of this EA.

3.2.3 Air Quality and Noise Levels

Air quality in most areas of Oahu is generally affected by vehicular traffic and stationary sources. The general lack of high volumes of both sources, combined with the normal fresh tradewind conditions and close proximity to the shoreline, indicate that the air quality is good in the project area.

High noise levels in the northern portions of the project area are due to industrial land use directly adjacent the subject property. The existing ambient noise levels within the project area are dominated by heavy equipment operating at the abutting Schnitzer Steel Hawaii Corporation (a.k.a., Hawaii Metal Recycling Company) facility and from vehicular traffic and equipment operating at nearby industrial properties. Potential impacts and mitigation measures regarding air quality and noise levels are discussed in Section 5.2.1 of this EA.

3.2.4 Geology

The Hawaiian Islands are comprised of an undersea mountain range almost wholly built up by volcanic activity. The eroded remains of the Koolau volcanic shield, approximately 37 miles long and oriented northwest southeast, comprise eastern Oahu. The shield-building phase of the volcano resulted in the Koolau Volcanic series. A long period of volcanic quiescence followed the shield building state, during which erosion occurred and

alluvium and marine sediments accumulated along the coastal regions when a series of worldwide sea level changes occurred. During the periods of greater submergence, sedimentation filled the great valleys, resulting in flat valley floors and coral reefs grew in areas presently above sea level (Stearns and Vaksvik, 1938).

The subject property is located south of the Waianae Range on the southwestern Ewa coastal plain of Oahu. Extrusive igneous rocks (lava flows) from the Waianae Volcanic Series underlie the relatively thin sequence of coastal sedimentary deposits. This relatively thin sequence of sedimentary deposits is collectively referred to as caprock. The caprock in the vicinity of the subject property has been subject to dissolution as a result of natural chemical weathering and exhibits the pitted and cavernous characteristics commonly termed “karstic”. The coralline limestone and consolidated sand dune deposits were emplaced during higher stands of the Ewa coastal plain. These carbonate formations are a result of marine sedimentation and precipitation with subsequent partial dissolution. The Ewa coastal plain is situated on an extensive formation of interbedded carbonate and terrigenous sediments with a thick vertical component (caprock). There are no known structural discontinuities (that is, faults) in this area (Stearns and Vaksvik, 1938).

3.2.5 Soils

Surface soil at the subject property (Figure 7, Soils Map) has been classified by the U.S. Department of Agriculture, Soil Conservation Service (USDA) as “Coralline Rock” with “Beach Sand” along the southern edge of the subject property. The material consists of coral or cemented calcareous sand. Small areas of coral outcrop are exposed on the ocean shore and are geographically associated with Jaucas, Keaau and Mokuleia soils. These coral outcrop soils are sedimentary coastal marine deposits. Coral outcrop makes up about 80 to 90 percent of this type of soil. The remaining 10 percent are a thin layer of friable red soil materials formed as alluvium occurs in cracks, crevices and depressions within the coral. The generalized soil map for the subject property area describes it as having deep, nearly level to moderately sloping, well drained soils that have a fine textured or moderately fine textured subsoil or underlying material and areas of fill land on coastal plains. These soils are described to have moderate permeability (USDA, 1972).

Subsurface soil textures, identified in soil borings installed during environmental investigations, generally consisted of reddish-brown silty, sandy gravel, sandy coral gravel and coralline sand underlying the buried ash-impacted material (CH2M HILL, 2004 & MFA,

2005). Potential impacts and mitigation measures regarding soil are discussed in Section 5.2.2 of this EA.

3.2.6 Topography and Slopes

Topographic map coverage of the subject property is provided by the U.S. Geological Survey (USGS) Ewa Quadrangle at a scale of 1:24,000 (USGS, 1998). The Ewa Quadrangle was used as the base map for Figure 1 and the USGS topographic information can be viewed on this figure. The subject property regional topography is relatively flat. A topographic and shoreline survey was conducted at the subject property in June 2007 and ground surface elevations at the subject property are less than 10 feet above mean sea level. The shoreline survey was submitted to the Department of Land and Natural Resources (DLNR) for state certification and a file No. OA-1175 has been assigned to the application. The completion date for application processing is October 5, 2007. Potential impacts and mitigation measures regarding topography and slopes are discussed in Section 5.2.3 of this EA.

3.2.7 Hydrology and Drainage

No surface water features, ponds, streams or wetlands are located within the project boundaries. A topographic and shoreline survey was performed in June 2007 that did not identify any surface water features or significant surface depression on the subject property.

There are 2 drainage canals, Drain A and Drain B, located along the western and northern boundaries of the subject property, respectively (Figures 2, 3, and 4). Drain B is a narrow ditch (approximately 10 wide) that bounds the subject property to the north and discharges entirely to Drain A. These drainage canals provide for stormwater runoff catchment from the subject and neighboring properties. Drain A (approximately 25 feet wide) discharges to the ocean through an outlet located near the south-western corner of the subject property. There are no other known drainage features.

Drain A was constructed into surface soil and subsurface coralline bedrock and consists of calm stretches of shallow water when a storm event is not present. Vegetation along the banks of Drain A is sparse or non-existent near the mouth, but approximately 100 feet north, the vegetation becomes gradually more dense. Emergent vegetation within Drain A is sparse and the majority of the main channel lacks an overhanging vegetative cover. According to City and County of Honolulu staff, there are no storm drain connection licenses for connections between the CCH and privately-owned storm water drain system in areas

near the subject property to Drain A (D. Kimura, Personal Communication, 5/15/2007). CCH utility maps document connections between CCH and privately-owned portions of the drainage system in JCIP that eventually discharge to Drain A. A review of government records was requested from the DOH Clean Water Branch (CWB) and according to their files, there are no discharge permits of any type for the subject property or for businesses who have historically leased space at the subject property. Storm water from the subject property directly infiltrates into soil of unpaved portions of the subject property, drains to the ocean, to Drain A or to Drain B by overland surface flow.

Flood zones are geographic areas that the Federal Emergency Management Agency (FEMA) has defined according to varying levels of flood risk. These zones are depicted on a community's Flood Insurance Rate Map (FIRM) or Flood Hazard Boundary Map. Each zone reflects the severity or type of flooding in the area. According to the FEMA FIRM 15003C03115F, the subject property is located in flood hazard Zones A and AE (FEMA, 2004). The entire property is designated as Zone A and approximately 60% of the property appears to be in Zone AE. Both Zone A and Zone AE are defined as high risk areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage (Figure 8, FEMA Flood Map).

Based on the FEMA flood information, the subject property is defined by the CCH Land Use Ordinance (LUO) (DPP, 1997) as being located in three different categories of flood districts: a General floodplain district (Zone A); a Flood fringe district (Zones AE, AO, AH); and a Floodway district (Zone AE). It is not located within a Coastal high hazard district (Zone VE). There are specific required development standards for permitting construction within this type of district and these requirements are discussed further in Section 4.3.3. Potential impacts and mitigation measures regarding hydrology, drainage and potential flooding issues related to the project are discussed in Section 5.2.4.

3.2.8 Groundwater Resources

Data presented in *Aquifer Identification and Classification for O'ahu: Groundwater Protection Strategy for Hawaii* (Mink and Lau, 1990) indicates the shallow groundwater located beneath the subject property is part of the Ewa aquifer system of the Pearl Harbor aquifer sector. This aquifer is unconfined and is comprised of caprock sediments that flank the Waianae basalt. Groundwater within the caprock aquifer is considered unconfined basal groundwater and resides within the sedimentary materials overlaying the lava flows of the

Waianae Volcano. Groundwater within the volcanic basal flank aquifer is considered confined and resides within the interconnected pore space and fractures of the underlying Waianae basalt lavas.

The inter-layered sedimentary sequence comprising the caprock aquifer typically contains stratigraphic units that exhibit low permeability, which generally retards upward flow of groundwater from the basal flank volcanic aquifer. Because of the confining nature of the caprock sedimentary unit, groundwater within the volcanic basal flank aquifer is artesian in nature. Because rainfall tends to be greater in the interior mountainous areas of the island, recharge to the basal groundwater bodies is also greatest in these areas. As a result, groundwater levels are high in these areas, causing groundwater to flow, generally, from the interior to the shoreline.

The system identifier for the Ewa System is 30204116(13321)/30204121(13213) (Mink and Lau, 1990). The numerator represents the upper sedimentary aquifer and the denominator represents the lower basalt aquifer (Figure 9, Aquifer Identification Map). Regional groundwater immediately underlying the subject property (the upper sedimentary aquifer) has a moderate salinity (1,000 to 5,000 milligrams per liter chlorides) and is currently in use. It is classified as unsuitable for drinking water purposes (Mink and Lau, 1990). Groundwater is located approximately 5-6 feet from the ground surface (MFA, 2005) at the subject property. No construction de-watering is anticipated during the proposed work.

The Hawaiian Islands typically have groundwater flow directions that follow topographic gradients (USGS, 1999). Surface topography can be indicative of groundwater flow because it often mimics the gradients of underlying, relatively impervious surfaces of horizontal volcanic flows, along which the hydraulic conductivity is much greater parallel to the horizontal directions of the layers and least conductive in the direction perpendicular to stratigraphic sections (USGS, 1999). Thus, regional groundwater flow direction at the subject property would be expected to be generally seaward (to the south). However, the subject property's proximity to the ocean and the adjacent drains likely results in tidal influence over the groundwater gradient.

The nearest drinking water well (DLNR well # 3-2004-05) is located approximately 3.7 miles northeast and hydraulically up gradient of the subject property (DOH, 1983). The project is located approximately 1.2 miles makai (seaward) of the Underground Injection

Control (UIC) line (DOH, 1983). Potential impacts and mitigation measures regarding groundwater resources are discussed in Section 5.2.5.

3.3 BIOLOGICAL ENVIRONMENT

3.3.1 Flora

The subject property has been in industrial and commercial use for at least 50 years. It consists of paved and unpaved areas largely devoid of vegetation. The shoreline along the southern portion of the property consists of a coralline sandy substrate. Vegetation along the shoreline includes shrubs of beach naupaka and low-lying mats of pickleweed and beach morning glory. Areas along the drainage canal include some kiawe and koa-haole.

A detailed botanical survey for the project was not undertaken and the existing vegetation at the subject property consists mainly of dune plants. The subject property is not located on the *Critical Habitat Area map for the General Locations of Units for 99 Species of Plants on Oahu* (USFWS, 2002). The subject property also does not lie in areas included within the *O'ahu Plant Cluster Recovery Plan* (USFWS, 1998). No rare, threatened or endangered plant species are known to occur on the subject property. Photographs of the subject property, showing the typical vegetation, are included on Figure 10, Shoreline Area Photographs. Potential impacts and mitigation measures regarding flora at the subject property are discussed in Section 5.3.1.

3.3.2 Fauna

The subject property has been in industrial and commercial use for at least 50 years. It consists of paved and unpaved areas largely devoid of wildlife. No ponds, streams or wetlands are located within the project boundaries and no anchialine pond or wetland fauna is expected to be present at the subject property. Aquatic species in neighboring Drain A and immediately along the adjacent shoreline may include fresh water and marine fishes, fresh water and marine invertebrates, aquatic and terrestrial arthropods, marine mammals and marine reptiles. Wading birds may forage on the aquatic life present in sea water, sand, sediment and exposed coral shelves. Species or evidence of species noted during current and previous subject property visits include mammals (feral cat, mongoose), birds (common myna, java sparrow) and insects (dragon flies, butterflies). Potential impacts and mitigation measures regarding fauna at the subject property are discussed in Section 5.3.2.

3.3.3 Aquatic Habitat

Shoreline and shallow coral reef communities exist immediately south of the subject property (Figures 10 and 11). The shoreline area south of the subject property has not been designated by DLNR as a Marine Protected Area or as a Marine Life Conservation District by the National Oceanic and Atmospheric Administration (NOAA). The adjacent marine area is not designated as a fishery management area, a fisheries replenishment area a wildlife sanctuary or a natural reserve area as designated by DLNR (NOAA, 2000).

Rare, threatened and endangered animal species potentially using areas at or near the subject property include the green sea turtle, hawksbill sea turtle, the Hawaiian monk seal, Hawaiian coot, Hawaiian duck, Hawaiian stilt and the Hawaiian moorhen. The four Hawaiian water birds listed as endangered species (Hawaiian coot, Hawaiian duck, Hawaiian stilt and the Hawaiian moorhen) do not yet have designated Critical Habitats. These water birds commonly utilize coastal wetland as their primary habitat. In lieu of designated Critical Habitats for these endangered species, the USFWS developed a list of Core wetlands and Supporting wetlands for these four water bird species and none of these wetlands are located at or near the subject property (USFWS, 2005).

The Pacific Ocean near the subject property has been designated by DOH as Class A waters (DOH, 1993). According to Hawaii Administrative Rules §11-54-03, the objective of Class A waters is "...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 criteria established for this class." Installation of a containment cap and barrier has been proposed to provide an overall benefit to marine waters by decreasing the potential for ash-impacted soil to erode into nearby marine waters. Potential impacts and mitigation measures regarding aquatic habitats at and near the subject property are discussed in Section 5.3.3.

3.4 SOCIO-ECONOMIC ENVIRONMENT

3.4.1 Population

The resident population of Oahu is estimated to be 909,863 persons in 2006 (U.S. Census Bureau, 2007) and of Kapolei is estimated to be 84,150 persons in 2005 (CCH, 2007).

Potential impacts and mitigation measures regarding affects to population for the surrounding area are discussed in Section 5.4.1.

3.4.2 Existing Land Use

Approximately 41% of the land on Oahu is zoned as conservation land, partly because of the steep slopes and the need to preserve watersheds (OP, 2005). National parks and recreational preserves are included in this percentage. In 2005, agricultural uses utilized approximately 33% of Oahu's land. Urban uses, including residential, commercial, and industrial uses, comprised approximately 26%, including military use (residential and non-residential), which comprised approximately 17% of the total land use on Oahu (OP, 2005). The current State Land Use District classifications place the proposed subject property within an Urban District as shown on Figure 12, State Land Use Map.

The subject property is located in an industrial park and the area immediately surrounding the subject property is zoned as an intensive industrial district (I-2) (CCH, 2007). According to the LUO, the intent of an intensive industrial district is to "set aside areas for the full range of industrial uses necessary to support the city. It is intended for areas with necessary supporting public infrastructure, near major transportation systems and with other locational characteristics necessary to support industrial centers. It shall be located in areas away from residential communities where certain heavy industrial uses would not be allowed." The City of Kapolei's *Long Range Master Plan Map* (Estate of James Campbell, 2000) indicates that current and future plans for the subject area are to be used for heavy industry/marine industry activities. There are several properties located west of the subject property, that support a mix of land uses, such as commercial, military, and recreational. Barbers Point Beach Park is located west of the subject property. Potential impacts of the proposed project on land use and proposed mitigation measures are discussed in Section 5.4.2.

3.4.3 Recreation

The area's principal recreational resource is the shoreline of the Pacific Ocean, which provides a range of recreational uses (fishing, swimming, diving) and other seaside activities. Because Barber's Point Beach Park is located west of the subject property, there is public use of the shoreline adjacent to the proposed project. The proposed project will not interfere with public access to the shoreline during or after construction. Potential impacts of the proposed project

on recreational use of the shoreline and proposed mitigation measures are discussed in Section 5.4.3.

3.4.4 Scenic and Visual Resources

The proposed project will not block scenic views of ocean or mountain resources. Potential impacts of the proposed project on scenic and visual resources and proposed mitigation measures are discussed in Section 5.4.4.

3.4.5 Archaeological and Historical Resources

A review of available archeological and historic files for the subject property area was conducted at the Hawaii State Historical Preservation Division (SHPD) office on May 9, 2007. There has been extensive archeological work conducted in areas located north, Kapolei Business Park, and west, Barber's Point Harbor, of the subject property. None of the survey work above included areas directly near or at the subject property.

In 1978, the CCH, Department of Parks and Recreation conducted a reconnaissance survey of land planned for the expansion of Barbers Point Beach Park. This park lies directly west of the subject property across from Drain A and the survey was conducted at areas that are very close to the subject property. The report states, "The parcel is irregularly shaped, about 2 acres in size and located adjacent (southeast) to the developed park property. The purpose of the survey, conducted on December 22, 1978, was to determine whether significant archeological remains are present on the property. The survey area is situated on a fairly flat coastal plain consisting of coral and cemented calcareous sands within which are numerous sinkholes. Vegetation consists primarily of kiawe, morning glory and koa haole. The archeological staff walked over the area several times and found no surface cultural remains present. The bottoms of the sinkholes were inspected and were found to be void of cultural materials as well. It was noted that the area had been previously bulldozed. It is the conclusion of the archeological staff that no further archeological work is necessary or justified in this area." (Clark, 1979).

Additionally, according to the National and State Register of Historic Places, there are no known registered historic sites located at or adjacent to the subject property (SHPD, 2007). According to available SHPD files, there are no known archeological and/or historic sites located at or adjacent to the subject property. Potential impacts of the proposed project on

archeological or historic resources and proposed mitigation measures are discussed in Section 5.4.5.

3.4.6 Infrastructure

The main roadway in the area is Hanua Street, a paved two-lane road. Vehicular access to the subject property is currently provided by a series of paved two-lane County and privately-owned roads. Potable water is supplied by the CCH municipal water system. CCH does not have a sanitary sewer system within James Campbell Industrial Park and all properties are assumed to be serviced by private on-site septic systems. Telephone, electric power and cable television service are provided to the project area via underground and overhead utility lines. Natural gas service is not located on Hanua Street, but is available in others areas of CIP (P. Ramos, Personal Communication, May 10, 2007). Existing utilities will be located, marked and avoided during grading and capping activities.

An easement for underground pipelines lies on the eastern edge of the Site. The easement is listed in State of Hawaii Land Court documents as #664 for Hawaiian Independent Refinery, Inc. (CKA Tesoro Corporation) underground pipelines located at Lot 1111, 9.572 acres, Map 122 of Land Court Application 1069 of the Trustees of the Estate of James Campbell and expires April 30, 2019.

There are 4 pipelines in this easement: one 20" Black Oil Pipeline; one 12" Diesel Pipeline; one 10" Jet Pipeline and a 10" Gasoline pipeline. They are located within 15 feet of the eastern property boundary and are at least 4 feet deep from the ground surface. During grading and any follow-on compaction work, there should be no problem with using a compactor roller over the pipeline. If the pipeline area is excavated to the pipeline line, Tesoro has a specific material, C33 sand, to be placed within 1 foot of pipeline. Otherwise normal fill outside the specified 1 foot surrounding pipeline is acceptable backfill material around the pipes. If needed, Tesoro has a compaction specification for fill over the pipelines.

Tesoro's easement states that it needs normal maintenance access to the pipelines. Should building or structure be proposed for construction, the land-owner will notify Tesoro for approvals. Tesoro requested to be on-Site during any excavation work that may take place over the pipelines, but none is planned.

The potential impact and mitigating factors related to infrastructure are presented in Section 5.4.6.

3.4.7 Economic Considerations

The goal of this project is to construct a containment cap and barrier that protects human health and the environment. Some of the generalized economic considerations of this proposed project are listed below.

Economic considerations if the project is not completed:

- Loss of lease income to the property owner;
- Loss of jobs and associated income tax generated by having businesses on-subject property;
- Loss of income to local contractors for materials and labor to install the barrier cap;
- Loss of permit SVA and SMAP fees to CCH; and
- Loss of income to utility companies for would-be tenants.

Economic considerations if the project is completed:

- Losses from above become gains;
- Continued use of 9.5 acres of industrial/commercial space; and
- Protecting coastal resources from lead contamination, thereby helping maintain a healthy marine habitat for recreational activities that generate local economic benefits.

The potential impact and mitigating factors related to the local and state economy are presented in Section 5.4.7.

4.0 THE RELATIONSHIP OF THE PROPOSED ACTION TO LAND USE PLANS, POLICIES AND CONTROLS FOR THE AFFECTED AREA

4.1 OVERVIEW

This section discusses the various land use plans and policies pertaining to the proposed installation of a containment cap and barrier for the purposes of protecting human health and the environment. Other plans and regulations related to the proposed project are also discussed.

4.2 POLICY PLANS

4.2.1 Overview of Policy Plans

The State of Hawaii and the CCH have adopted general plans to guide the physical, social and economic development of the islands in general and Oahu and shoreline areas in particular. These general plans outline the objectives and policies that encourage the controlled development of resources (energy, economics, water, etc.). These policies also include a general framework for protecting human health and the environment.

4.2.2 Hawaii State Plan

On May 22, 1978, the Hawaii State Plan (Plan) was signed into law. The Plan serves "as a guide for the future long-range development of the State; identifies goals, objectives, policies, and priorities for the State. The Plan provides a basis for determining priorities and allocating limited resources, such as public funds, services, and human resources. It improves coordination of federal, state, and county plans, policies, programs, projects, and regulatory activities. The Plan also establishes a system for plan formulation and program coordination to provide for an integration of all major state and county activities." (OP, 1996). Since this statute was signed into law, different state agencies have been directed to develop their own Functional Plans that detail specific ways in which the individual departments meet the objectives of the Plan. This may include the adoption of rules, or similar legal tools, that require specific actions, some of which are discussed in greater detail in this section of the report.

The Plan objectives and policies that pertain most directly to the proposed containment cap and barrier are contained in HRS, Chapter 226 Hawaii State Planning Act, Sections 226-11 and 226-13 of the Plan:

Section 226-11: Objective and policies for the physical environment - land-based, shoreline, and marine resources

(a) Planning for the State's physical environment with regard to land-based, shoreline, and marine resources shall be directed towards achievement of the following objectives:

- (1) Prudent use of Hawaii's land-based, shoreline, and marine resources.*
- (2) Effective protection of Hawaii's unique and fragile environmental resources.*

(b) To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to:

- (1) Exercise an overall conservation ethic in the use of Hawaii's natural resources.*
- (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.*
- (7) Provide public incentives that encourage private actions to protect significant natural resources from degradation and unnecessary depletion.*

Section 226-13: Objective and policies for the physical environment - land, air, and water quality.

(a) Planning for the State's physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives.

- (1) Maintenance and pursuit of improved quality in Hawaii's land, air, and water resources.*
- (2) Greater public awareness and appreciation of Hawaii's environmental resources.*

(b) To achieve land, air, and water quality objectives, it shall be the policy of this State to:

- (1) Foster educational activities that promote a better understanding of Hawaii's limited environmental resources.*

- (2) *Promote proper management of Hawaii's land and water resources.*
- (3) *Promote effective measures to achieve desired quality in Hawaii's surface, ground, and coastal waters.*
- (6) *Encourage design and construction practices that enhance the physical qualities of Hawaii's communities.*
- (7) *Encourage urban developments in close proximity to existing services and facilities.*
- (8) *Foster recognition of the importance and value of the land, air, and water resources to Hawaii's people, their cultures, and visitors.*

The proposed project responds to these objectives and policies by protecting human health and the environment, helping support state-wide social, economic, and physical environment objectives. Specifically, the proposed project reduces the potential for negative impacts to coastal water quality and marine resources from previous practices (i.e., auto wrecking and incineration) conducted at the subject property. The completed project will help provide for continued beneficial and multiple uses of the shoreline for the general public. The project has been designed in a manner that promotes prudent use of resources and will accommodate public concerns.

4.2.3 General Plan of the City and County of Honolulu

In 1992 (updated 2006), the *General Plan of the CCH* (CCH Plan) was adopted as a “...comprehensive statement of objectives and policies, which set forth the long-range aspirations of Oahu’s residents and the strategies of actions to achieve them.” (DPP, 1992). In general, the CCH Plan speaks to eleven areas of concern, two of which are the Natural Environment and Culture and Recreation. The CCH Plan states, “...policies seek to protect and enhance our natural attributes by increasing public awareness and appreciation of them and by mitigating against the degradation of these assets.” The proposed project addresses the following specific objectives and policies relating to the Natural Environment and Culture and Recreation as listed in the updated CCH Plan.

Part III. Natural Environment, Objective A: To protect and preserve the natural environment.

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

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

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

Policy 13: Encourage the safe use of Oahu's ocean environments.

The proposed project meets the intent of these objectives and policies of the CCH Plan. The project has been proposed in order to protect human health and the environment. The project will protect nearby coastal resources and provide for safe recreational use of the shoreline by the general public.

4.2.4 State Environmental Policy

Adopted in 1974 and patterned after the National Environmental Policy Act (NEPA) requirements, Hawaii's Environmental Impact Statement law (HRS 343) requires the preparation of EAs and EISs for many development projects. Although the proposed project is not a development, it does involve construction of a barrier structure within the shoreline setback and shoreline management area. The law requires that government give systematic consideration to the environmental, social and economic consequences of proposed development projects before granting permits and allowing construction to begin. The National Environmental Policy Act also assures the public right to participate in planning projects that may affect the community (OEQC, 1997).

An EA is required under HRS 343 for any program or project that proposes one or more of the following eight land uses or administrative acts:

- 1. Use of state or county lands or funds other than for feasibility studies or the purchase of raw land,*
- 2. Use of any land classified as Conservation District set by state law,*
- 3. Use within the Shoreline Setback Area (usually 40 feet inland from the certified shoreline),*
- 4. Use within any Historic Subject property or District as designated in the National or Hawaii Register of Historic Subject property,*
- 5. Use within the Waikiki Special District as designated by the county,*

6. *Any amendment to county general plans that would designate land as other than agriculture, conservation or preservation except comprehensive plan amendments initiated by the county,*
7. *Reclassification of State Conservation District lands, and*
8. *Construction or modification of helicopter facilities which may affect conservation land, the shoreline area, or historic properties.*

This EA was prepared to comply with the State's environmental policy and to give appropriate regard to environmental, economic, technical and community concerns. This EA has been prepared to address potential environmental concerns with the installation of the containment cap and barrier within the SSA.

4.2.5 Hawaii Administrative Rules

HAR Title 11, DOH and Title 13, DLNR, define the State required procedures for permitting and constructing the proposed containment cap and barrier project.

The HAR, Title 11, were developed and have been enforced by the DOH. As part of the DOH, the HEER is responsible for implementing the Hawai'i Environmental Response Law (HRS 128D) and the State Contingency Plan (HAR 11-451), as well as the Hawai'i Emergency Planning and Community Right-to-Know Act (HRS 128E). The State Contingency Plan was promulgated to implement the requirements of HRS 128D. HEER has prepared a draft *Technical Guidance Manual* for implementation of the State Contingency Plan that contains HEER's policies on investigating and cleaning up contamination from land use activities.

The subject property has been the focus of subsurface environmental investigations since 2003. Activities conducted at the subject property have followed numerous polices and requirements set forth in HAR Chapter 11-451.

A history of regulatory-related actions taken at the subject property, since contamination was reported for the subject property in 2003, can be found in reports submitted to DOH that are publicly available at their offices. The DOH states in an August 14, 2006 letter, "The Hawaii Department of Health Hazard Evaluation and Emergency Response Office has reviewed the Remedial Alternative Analysis (dated June 26, 2006) and considers

that the document has adequately fulfilled the requirements for a remedial alternative analysis pursuant to HAR 11-451-15(g). The Department agrees with your preferred remedial alternative for the subject property.” Further discussion of the analysis of remedial alternatives for the subject property is presented in Section 6.0 of this report. A copy of the DOH letter referenced above is included as Appendix A, Department of Health Letter Regarding Remedial Alternative Selection. The proposed project will ensure that the subject property owner meets State Contingency Plan requirements for addressing contamination at the subject property.

The HAR, Title 13, were developed and have been enforced by the DNLR. The Coastal Lands program is part of the Office of Conservation and Coastal Lands (OCCL) within the DNLR. “The Coastal Lands Program is responsible for maintaining the delicate balance between preservation and responsible development of marine and coastal areas. The Coastal Lands Program is involved with initiating and developing innovative shoreline management techniques that will help with the long term goal of beach and coastal protection” (DLNR, 2007). The 2000 Hawaii Coastal Erosion Management Plan (COEMAP) and the currently Draft DLNR Shoreline Policy both discuss the overall general policy of the State. “It is the policy of the State of Hawaii under HRS Chapter 205A to discourage all shoreline hardening that may affect access to or the configuration of, our island beaches.” (COEMAP, 2000). The intent of the policies and COEMAP are to reduce human impacts that cause chronic erosion of coastal lands which eventually lead to a retreat of the shoreline and loss of coastal lands.

The primary goal of the proposed project is to prevent ash-impacted soil from negatively impacting human health and or the environment. The proposed project includes excavating ash-impacted soil, then capping all the ash-impacted soil with clean earthen materials/pavement and then containing it on the subject property in the shoreline direction with a barrier that, when installed and finished, will be at grade. The proposed containment barrier is not considered a seawall, revetment, groin or other type of shoreline hardening structure because it is not designed to protect an eroding shoreline and will be substantially subsurface when complete. This project is designed and intended to prevent terrestrial contaminated land from eroding to marine waters and negatively impacting coastal resources. Containing and capping ash-impacted soil on the subject property is in the public interest because it reduces the potential for negative impacts to the marine environment and helps to maintain a non-contaminated shoreline for use by the general public.

4.3 PROJECT PERMIT REQUIREMENTS

The following permits were reviewed as to applicability to the proposed project. Certain permits are discussed in detail in the following sections.

4.3.1 Federal Permits

Permit for Activities in Waterways

Not applicable. The proposed project will not cross or enter waterways.

Section 404, Clean Water Act for discharges into the waters of the U.S.

Because of the need to excavate ash-impacted soil from the beach, the proposed project has the potential to discharge ash-impacted soil to the waters of the U.S.. Permitting under the Nationwide Permit #38, Cleanup of Hazardous and Toxic Waste will be sought for this proposed project. All nationwide and regional conditions will be included as part of the overall BMPs for the proposed project. This permit will be needed for the proposed project and is being sought as part of this Draft EA process.

Flood Determination in General Flood Plain District / Development Applications in Flood Hazard District / Flood Hazard Variance

According to the FEMA FIRM (15003C03115F, 2004) the subject property is located in flood hazard Zones A and AE. The entire property is designated as Zone A and approximately 60% of the property appears to be in Zone AE. The proposed project is not considered a development project and will not require a Federal Flood Hazard variance or a CCH Flood Hazard District permit (refer to Section 4.3.3).

4.3.2 State of Hawaii Permits

Conservation District Use Permit

Not applicable. The proposed project is not in a Conservation District.

Special Permit - State Land Use, Agricultural, and Rural Districts

Not applicable. The proposed project is not in an Agricultural or Rural District.

Historic Subject Property Review

Based on the information presented in Section 3.4.5 regarding the review of cultural and historic sites, there are no expected required historical permits for the proposed project.

In Stream Use of Water: Stream Channel Alteration

Not applicable. The proposed project does not involve altering any stream channel or using stream water.

Variation from Pollution Controls (Noise and Air Pollution)

Not Applicable.

Section 401, Water Quality Certification

Because of the need to excavate ash-impacted soil from the beach, the proposed project involves conducting work within the high tide line (State waters). A 401 Water Quality Certification application will be submitted for this proposed project and is being sought as part of this Draft EA process..

CZM Consistency Determination

The Hawaii Coastal Zone Management Program (HCZMP) was established to guide the development, protection, and use of the land and ocean resources within Hawaii's coastal zone. The objectives of the HCZMP are stated in Chapter 205A of the Hawaii Revised Statutes (HRS, 1998b). Any significant development activity within the coastal zone is required by law to conform to the HCZMP objectives and policies. The objectives are listed below:

- 1. Recreational resources; (A) Provide coastal recreational opportunities accessible to the public.*
- 2. Historic resources; (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.*
- 3. Scenic and open space resources; (A) Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.*
- 4. Coastal ecosystems; (A) Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.*
- 5. Economic Uses; (A) Provide public or private facilities and improvements important to the State's economy in suitable locations.*

6. *Coastal hazards; (A) Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.*
7. *Managing development; (A) Improve the development review process, communication, and public participation in the management of coastal resources and hazards.*
8. *Public participation; (A) Stimulate public awareness, education, and participation in coastal management.*
9. *Beach protection; (A) Protect beaches for public use and recreation.*
10. *Marine resources; (A) Implement the State's ocean resources management plan.*

A Coastal Zone Management (CZM) Federal Consistency determination will be needed for the proposed project and will be sought after the completion of this Draft EA process.

The HCZMP is expanded on the county level by the establishment of SMA that controls development along the shoreline. The proposed project is not a development project, but an environmental enhancement project that will not encourage any further development than already exists. A SMP is required from the CCH Department of Planning and Permitting because of the proposed construction of a containment cap and barrier within the SMA.

Perform Work Affecting State Highway

The proposed project does not effect State highways.

Cross or Enter State Energy Corridor

The proposed project does not cross or enter any State Energy Corridors.

EA/EIS

In accordance with the provisions set forth in Chapter 343, Hawaii Revised Statutes, and the significance criteria of Chapter 200, Title 11, Hawaii Administrative Rules, this environmental assessment indicates that the proposed project will have no significant short-term or long-term negative impacts upon the environment and will not require an EIS.

The installation of the proposed barrier cap project requires construction work within the SSA and thereby requires an EA.

NPDES/Storm Water Discharge Permit

In 1972, the Federal Water Pollution Control Act (often referred to as the Clean Water Act) was amended to provide that the discharge of pollutants to waters of the United States from any point source is effectively prohibited, unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Amendments to the CWA in 1987 added Section 402(p) to the Act and establishes a framework for regulating municipal and industrial discharges under the NPDES program.

Under the HRS, the DOH issues water pollution control permits which serve as NPDES permits. The NPDES General Permit Coverage is regulated primarily under Sections 11-55-34 to 34.12 and Appendices of HAR Chapter 11-55, Water Pollution Control. As part of the containment cap and barrier design, storm water from the subject property will be directed towards Drain A and Drain B. A NPDES permit, DOH CWB NOI Form C, for storm water discharge during construction will be obtained prior to the start of proposed site work.

Small-Scale Beach Nourishment Permit

A Category II small-scale beach nourishment permit for back-filling the excavated beach area will be needed for the proposed project and will be sought after the completion of this EA.

4.3.3 City and County of Honolulu

Development Plan Public Facilities Map Amendment

Not Applicable. The proposed project is not a public facility.

Property Ownership

Work for the proposed project will be conducted on one individual piece of private property.

Conditional Use Permit, or any other relevant city Permit

Not Applicable. The proposed project is not a development requiring a Conditional Use Permit.

Special Management Area Use Permit (SMA), Major Project

The proposed project is considered a major project only because its construction costs exceed a total value of \$125,000. The proposed project is not a development, but an environmental remedial activity that provides an overall benefit to the general public and environment. This permit will be needed for the proposed project and will be sought after the completion of this EA.

Street Usage Permit

Not Applicable.

Shoreline Setback Variance

This permit will be needed for the proposed project and is being sought as part of the Draft EA process. A topographic and shoreline survey was conducted at the subject property in June 2007 and the shoreline survey was submitted to the DLNR for state certification (File No. OA-1175)

As part of the state shoreline certification process, staff from the Department of Land and Natural Resources (DLNR) visited the subject property in August 2007. Based on debris line observations made in the field by DLNR staff, the central portion of the subject property's shoreline location was revised from a previous 1997 certified shoreline survey. The revised shoreline was moved mauka of the original 1997 surveyed shoreline by a maximum of 63 feet and increased the amount of beach on the subject property by 0.17 acres (certified January 3, 2008).

Shoreline setback variances may be granted for activities that are clearly in the public interest. A shoreline setback variance is expected to be granted for this proposed project because of its overriding goal to protect public health and the environment. Pursuant to ROH, Section 23-1.8 (b)(2), this proposed project meets the criteria for granting a variance based on the Public Interest Standard. There is a benefit to the general public by completing this proposed project because it protects the shoreline for safe public recreational use and it protects the marine environment from contamination located at the subject property.

Special District Permit

Not applicable. The project is not located within a special district.

Subdivision Permit

Not applicable.

Permit to Discharge Effluent (Temporary)

Not applicable. Drain A is privately-owned, so no permit to discharge to a CCH-owned drainage system is applicable.

Grubbing, Grading, and Stockpiling Permit

This permit will be needed for the proposed project and is being sought as part of this Draft EA process.

Permit to Excavate in Public Right-of-Way

Not applicable.

Permit to Develop in a Flood Hazard District

A Flood Hazard District permit is not required for the proposed project work in the subject property's floodway because the proposed remedial work is not for site development purposes and because buildings are not being proposed as part of this work (L. Furukawa, Personal Communication. 10/3/2007)..

5.0 SUMMARY OF PROBABLE IMPACTS OF THE PROPOSED ACTION AND PROPOSED MITIGATION MEASURES

5.1 OVERVIEW

This section discusses the probable impacts of the proposed project and proposed mitigation measures. Mitigation includes efforts to avoid, minimize, rectify, or reduce impacts from the proposed activities on the surrounding environment. Impacts can be either short- or long-term. Short-term impacts are usually construction related, while long-term impacts are usually related to the monitoring and maintenance of the proposed project.

5.2 PHYSICAL ENVIRONMENT

5.2.1 Air Quality and Noise Levels

Impacts on air quality and noise from excavating ash-impacted soil and the installation of the cap and barrier are anticipated to be minor. Some short-term deterioration of subject property air quality is anticipated during construction. This potential impact might primarily affect the construction workers and nearby recreational users of the shoreline and Barber's Pont Beach Park. These short-term effects will be intermittent and will not be sustained beyond construction.

Normal tradewind patterns along the subject property's shoreline area should disperse short-term pollutant emissions generated by construction activities. Construction management measures (i.e., dust control and BMPs) are expected to minimize these potential adverse effects. Construction activities must comply with provisions of HAR Chapter 11-60.1, "Air Pollution Control," Section 11-60.1-33, Fugitive Dust, which states that:

The contractor should provide adequate measures to control dust from the road areas and during the various phases of construction. These measures include, but are not limited to:

- a. Planning the different phases of construction, focusing on minimizing the amount of dust generating materials and activities, centralizing subject property vehicular traffic routes, and locating potentially dusty equipment in areas of least impact;
- b. Providing an adequate water source for dust control prior to start up of construction activities;
- c. Landscaping and rapid covering of bare areas, including slopes, starting from the initial grading phase;

- d. Controlling dust from access roads;
- e. Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
- f. Controlling of dust from debris being hauled away from subject property.

High noise levels currently exist in the project area due to intensive industrial land use directly north of the subject property. The existing ambient noise levels within the project area are dominated by heavy equipment operating at the abutting facility and from vehicular traffic and equipment operating at nearby industrial properties.

Heavy vehicles traveling to and from the subject property must comply with the provisions of the DOH's Administrative Rules, Chapter 11-46, "Community Noise Control" which states that:

- a. The contractor must obtain a noise permit if the noise levels from the construction activities are expected to exceed the allowable levels of the rules as stated in Section 11-46-6(a);
- b. Construction equipment and on-subject property vehicles requiring an exhaust of gas or air must be equipped with mufflers as stated in Section 11-46-6(b) (1)(A); and
- c. The contractor must comply with the requirements pertaining to construction activities as specified in the rules and the conditions issued with the permit as stated in Section 11-46-7(d) (4).

Positive long-term effects on air quality consist of eliminating the potential for lead-contaminated dust to drift to nearby recreational, terrestrial and/or aquatic environments. Negative long-term effects on air quality and noise are not anticipated.

5.2.2 Soils

The purpose of the proposed project is to cap and contain ash-impacted soil located on the subject property. The proposed project will involve excavating ash-impacted material from a portion of the beach, capping the subject property with pavement and installing an approximate 1,000-foot long subsurface containment barrier along the southern edge of the

subject property, mauka of the certified shoreline. The subject property will be minimally graded to direct storm water runoff into Drain A and Drain B.

There will be significant long-term positive impacts to the soils in the project area because ash-impacted soils will be removed from the beach and capped and contained mauka of the beach. These positive long-term effects consist of eliminating the potential for lead contaminated dust to drift to nearby terrestrial and/or aquatic environments and to reduce the potential for ash-impacted soil to erode to the shoreline and marine waters.

There are no known negative long-term effects on subject property soils from conducting the proposed project. Paving may create a long-term effect on hydrology or drainage and those potential impacts are discussed further in Section 5.2.4 of this report.

5.2.3 Topography and Slopes

The subject property is relatively flat and minimal grading of the subject property will minimize ponding of water on the paved cap and help drain stormwater towards Drains A & B. During the limited excavation of ash-impacted soil and the construction of the containment barrier, the slopes of the shoreline will be affected. Some vegetation located along the proposed containment barrier will need to be removed prior to excavation for construction of the barrier. Dual silt fences will be placed along the seaward side of the proposed barrier location to help prevent runoff from the construction area to marine waters. The shoreline area has been formally surveyed as part of work conducted to obtain a State-certified shoreline boundary for the subject property. This topographic survey information will be used to slope any disturbed shoreline to pre-construction conditions. Vegetation will be restored in areas where it had been removed.

Minimal grading will be conducted and shoreline areas will be re-stabilized with native plantings, therefore, there will be limited short-term and no anticipated long-term impacts to topography and slopes of the subject property.

5.2.4 Hydrology and Drainage

The subject property is located in a Flood Hazard District. Under flooded conditions, paving the subject property decreases the available surface area for flood waters to directly infiltrate into surface soils, increasing the amount of time for flood waters to drain from the subject property. The subject property is fairly large (9.57 acres) and with the limited paving

observed on abutting properties and the presence of the adjacent drains, paving is not expected to affect hydrology or drainage on adjacent properties in the short or long-term.

Construction activities could provide a short-term adverse impact to the quality of stormwater draining from the subject property. The contractor will comply with permit conditions regarding stormwater control during construction. The contractor also will comply with required BMPs described in the grading, drainage and erosion control plans, which must be approved by the CCH.

Paving the subject property may have a long-term effect on hydrology and drainage, but only at the subject property. Grading the site to direct stormwater flow to drain towards Drains A & B will help minimize the impact from paving, and therefore, long-term adverse impacts on hydrology and drainage are not anticipated.

5.2.5 Groundwater Resources

The proposed project is located near the shoreline and will involve excavation. Trenches will be excavated to the coralline bedrock located approximately 4- 6 feet from the ground surface along the areas where the containment barrier is proposed for installation. Groundwater is located approximately 5-6 feet from the ground surface (MFA, 2005) in these areas and therefore no construction de-watering is anticipated during the installation of the containment barrier. The proposed project is not anticipated to have any adverse affect on the caprock or basal aquifer below.

Contractors working on this project will be required to have pollution prevention BMPs in place to prevent contamination of groundwater from construction activities performed on the subject property.

The long-term impact to groundwater in the project area will be positive because it eliminates rainfall infiltration through the ash-impacted soil, thereby eliminating potential leaching of contaminants to the groundwater beneath it.

5.3 BIOLOGICAL ENVIRONMENT

5.3.1 Flora

The majority of the subject property contains paved and unpaved areas devoid of significant vegetation. The subject property is not located on the *Critical Habitat Area map for the General Locations of Units for 99 Species of Plants on Oahu* (USFWS, 2002). No rare, threatened or endangered plant species are known to occur on the subject property.

Vegetation removal will be kept to a minimum, and the proposed project is not expected to have a significant negative effect on flora in the area. Vegetation will be restored in areas where it had been removed to construct the containment barrier. No long-term adverse affects are anticipated to the flora of the subject property.

5.3.2 Fauna

The majority of the subject property contains paved and unpaved areas devoid of wildlife. The subject property is not located within the critical habitats designated for the endangered O'ahu 'elepaio bird species (USFWS, 2002). However, rare, threatened and endangered animal species potentially using the areas at or near the subject property include the green sea turtle, hawksbill turtle, Hawaiian stilt and the Hawaiian monk seal (USFWS, 2002). Coral reef communities exist in the offshore areas.

There is a potential for short-term negative impacts to these animals if there is a large storm event that erodes a significant amount of the ash-impacted soil into marine waters. During construction, dual silt fences will be placed along the makai side of the proposed barrier location. The silt fences will help prevent runoff from the construction area to the marine waters. If a large storm event is predicted during containment barrier construction, additional measures would be taken to minimize erosion of ash into marine waters. These additional steps may include covering the excavated shoreline areas with tarps and and/or stopping work. Additionally, construction of the containment barrier will be performed in a phased approach, reducing the amount of open excavation areas at any one time.

The proposed project is expected to have significant long-term positive impact on fauna in the area because of its intrinsic environmental enhancement of the area. The proposed project will not have a significant long-term negative impact on fauna in the area.

5.3.3 Aquatic Habitat

Impacts to the aquatic environment related to local soils, topography, hydrology, drainage, groundwater, flora and fauna have been discussed in the previous sections of this report. The positive long-term effects consist of eliminating the potential for ash-impacted dust to drift to nearby terrestrial and/or aquatic environments and to reduce the potential for ash-impacted soil to erode to the shoreline and marine waters. The proposed project is expected to have a significant long-term positive impact on nearby aquatic habitats because of its intrinsic environmental protection and enhancement of the area. The proposed project will not have a significant long-term negative impact on aquatic habitats of the area.

5.4 SOCIAL ENVIRONMENT

5.4.1 Population

The proposed project will not result in increased development nor an increase in the residential population. The proposed project will allow the property to be used as zoned.

5.4.2 Existing Land Use

The proposed project will not result in changes to current or planned future use of the subject property or nearby properties. The subject property will remain as an industrial property in perpetuity. An environmental covenant will be placed on the subject property as an institutional control and will be an important aspect of the remedial action. Containing ash-impacted soil on the subject property is an active form of environmental remediation. Restrictive covenants ensure that the future owners of the subject property understand the limitations placed on it due to ash-impacted soil remaining at the subject property.

5.4.3 Recreation

The area's principal recreational resource is the shoreline of the Pacific Ocean, which provides a range of recreational uses (fishing, swimming, diving) and other seaside activities. Because Barber's Point Beach Park is located west of the subject property, there is easy public access to the shoreline adjacent to the proposed project. The proposed project will not interfere with public access to the shoreline during or after construction. Users of the park could potentially be adversely impacted through dust blowing to the park during grading activities. Managing dust during grading work is discussed in Section 5.2.1. In general, construction management measures (i.e., dust control and BMPs) are expected to minimize these potential short-term adverse effects.

The positive long-term effects of the proposed project for local recreational users of the park and shoreline consist of eliminating the potential for contaminated dust to drift to the nearby park and to reduce the potential for ash-impacted soil to erode to the shoreline, contaminating coastal waters.

5.4.4 Scenic and Visual Resources

The proposed project will not block scenic views of ocean or mountain resources. The proposed project construction activities not will result in any short-term or long-term impacts on scenic and visual resources for subject or nearby properties.

5.4.5 Archaeological and Historical Resources

According to the SHPD files available and discussed in Section 3.4.5 of this report, there are no known archeological and/or historic sites located at or adjacent to the subject property. In the event that any human burials, artifacts, or other cultural remains or deposits are encountered during construction, the contractor will contact the SHPD. Work in the immediate area will be suspended until the SHPD is able to assess the impact and make further recommendations for mitigation, if warranted. There are no anticipated short term or long-term impacts to archeological and historic resources from the proposed project.

5.4.6 Infrastructure

There are no short term or long-term impacts to infrastructure or utility systems at the subject property. Planned future use of the subject property will primarily be for commercial purposes. Any future on-site septic system would be located in the northern portion of the subject property that does not contain ash-impacted soil. Existing utilities will be located, marked and avoided during grading and capping activities. Grading and paving work located over the fuel pipeline easement will be coordinated with Tesoro.

5.4.7 Economic Considerations

The proposed project will have a beneficial short-term impact on Hawaii's economy by increasing the demand for goods and services from the construction industry during construction of the proposed project. The proposed project will also have beneficial long-term economic impact on the subject property owner because paving it will allow for more effective use of space at the subject property. There are no anticipated short term or long-term adverse impacts to Hawaii's economy from the proposed project.

6.0 ALTERNATIVES TO THE PROPOSED ACTION

6.1 OVERVIEW OF ALTERNATIVES

The proposed project is a remedial action required by the DOH for the subject property. A RAA was produced as part of the on-going environmental work performed at the subject property. The RAA presented remedial action objectives, identified several possible remedial alternatives, developed preferred remedial alternatives, and evaluated them based on the DOH's criteria of effectiveness, implementability, and cost, including the alternative to take no action at the site.

In addition to the No Action alternative, three potential remediation alternatives were developed: 1) containment cap and barrier; 2) excavation and off-subject property disposal; and 3) soil stabilization. These three alternatives were deemed feasible and implementable for the subject property. Each would provide an effective long-term solution at the subject. Each of these technologies has a documented successful history at similar sites.

A containment cap and barrier can be readily implemented with local materials and services, and creates the least disturbance of the ash-impacted soil on the subject property. Due to its superior ability to be implemented, its proven effectiveness at similar local sites, and lowest costs, containment cap and barrier was identified in the RAA study as the preferred remedial alternative for the subject property. Excavating ash-impacted soil from the beach and placing it on the subject property for capping is a modification of the selected remedial alternative that does not detract from the selected alternative being the best permanent long-term remedial solution for the subject property.

The DOH agreed with this the preferred alternative and a copy of this DOH letter documenting their concurrence with of the selected remedial alternative is included as Appendix A. The DOH HEER office was contacted about the subsequently revised shoreline survey and excavation of ash-impacted soil from the beach. DOH HEER concurred that the excavation work was a minor modification of the remedial alternative (S. Mow, Personal Communication, January 16, 2008). A revised draft RAM is now being prepared to address this modification.

6.2 NO ACTION

The “No Action” alternative is always considered when evaluating remedial alternatives for cleaning up contaminated property. The "No Action" alternative was determined to be unacceptable in the RAA. The "No Action" alternative means that no remedial action would be taken at the subject property. If the proposed project is not undertaken, there is a potential risk to humans and the potential degradation of the marine environment.

7.0 FINDINGS SUPPORTING THE ANTICIPATED DETERMINATION

To determine whether the proposed project may have a significant adverse impact on the environment, expected consequences, both short and long term have been evaluated. Based on the information evaluated, it is anticipated that the approving authority will issue a Finding of No Significant Impact (FONSI) as summarized in this section.

7.1 SIGNIFICANCE CRITERIA

Administrative Rules of the DOH, Title 11, Chapter 200 establishes “Significance Criteria” to be used as the basis for identifying whether significant adverse environmental impacts will occur. The relationship of the proposed project to these thirteen criteria is provided below.

- 1. Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;**
Natural or cultural resources will not be lost or destroyed by installation of the proposed project.
- 2. Curtails the range of beneficial uses of the environment;**
The construction of the proposed project will not curtail the range of beneficial uses of the environment, nor will it adversely affect the environment of the surrounding area.
- 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 long-term environmental policies, goals or guidelines of the State of Hawaii. The proposed project will not significantly adversely affect natural resources, and will prevent erosion of ash-impacted soil to the marine environment.
- 4. Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;**
The economic and social welfare, and cultural practices of the community or State will not be adversely affected by the proposed project.
- 5. Substantially affects public health;**
There are no adverse public health concerns relating to the proposed project. There are positive affects to public health by constructing the proposed project. There may be

short-term negative affects to workers during the construction of this project, but will be minimized by use of BPMs and PPE.

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

There are no anticipated secondary impacts.

7. Involves a substantial degradation of environmental quality;

The proposed project does not degrade the quality of the subject property environment. Construction of the proposed project will prevent possible negative environmental impacts to the marine environment from the ash-impacted soils located at the subject property.

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

The construction of the proposed project will not curtail the range of beneficial uses of the environment, nor will it adversely affect the environment of the surrounding area. The project is solely for environmental restoration purposes and will only keep the subject property useable as an industrial/commercial site, not changing future use of the subject property.

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

The construction of the proposed project will not substantially affect rare, threatened, or endangered species, or their habitats. The construction of the proposed project will have the potential to positively affect the habitats for rare, threatened, or endangered species.

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

The construction of the proposed project will not detrimentally affect air or water quality or ambient noise levels. There are positive long-term benefits to water quality by constructing the proposed project.

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

The construction of the proposed project will not affect or is likely to suffer significant damage by being located in an environmentally sensitive area. Grading will help surface storm water drain towards Drains A & B. The containment cap and barrier are proposed to be constructed mauka of the certified shoreline. Because the certified shoreline generally represents the furthest wash of the highest wave, both the barrier

and cap will not be subject to wave action on a regular basis. The site-specific MAP will help ensure monitoring and associated long-term maintenance of the cap and barrier.

12. Substantially affects scenic vistas and view planes identified in County or State plans or studies;

The construction of the proposed project will not affect scenic vistas and view planes identified in County or State plans or studies.

13. Requires substantial energy consumption;

The proposed project will not require substantial energy consumption.

7.2 ANTICIPATED DETERMINATION

On the basis of the above criteria and the discussion of impacts and mitigative measures contained in this document, the findings of this EA indicate that the proposed project will not have a significant adverse environmental impact. Potential short-term construction impacts can be mitigated through construction management practices and by complying with all appropriate governmental permit requirements.

Long-term benefits to the general public and environment of the proposed project include:

- 1.) Reducing the potential for ash-impacted soil to erode to the shoreline and marine environment;
- 2.) Eliminating potential groundwater contamination by capping ash-impacted soil;
- 3.) Protecting the shoreline and marine environment for safe recreational use; and
- 4.) Eliminating the potential for contaminated dust to drift to Barber's Point Beach Park.

It is anticipated that the approving authority, City and County of Honolulu, Planning and Permitting, Land Use Division, will issue a FONSI for this proposed project.

8.0 AGENCY AND ORGANIZATION CONSULTATION AND REVIEW

8.1 PRELIMINARY CONSULTATION ACTIVITIES

The following agencies and organizations were sent a pre-consultation letter during preparation of this Draft EA. As part of pre-consultation activities, several individuals also were contacted in person or via telephone and those individuals are denoted with “PC” for Personal Communication. A sample of the pre-assessment letter and preliminary correspondence received are included as Appendix B, Pre-Assessment Consultation Letter and Comments Received.

CITY AND COUNTY OF HONOLULU AGENCIES

Department of Planning and Permitting

PC: Steve Tagawa, Land Use Permits Division, pre-consult meeting, 4/20/2007

PC: Dawn Kimura, Engineering Department, 5/15/2007

PC: Len Furukawa, Engineering Department, 10/3/2007

STATE OF HAWAII AGENCIES

Department of Business, Economic Development & Tourism:

Office of Planning

Hawaii Coastal Zone Management

Land Use Division

PC: Mary Ellen Evans, 5/9/2007

Department of Health:

Clean Water Branch

P.C.: Ann Teruya, Government Records, 5/29/2007

Environmental Management Division

Hazard Evaluation and Emergency Response

P.C. Steve Mow, Remedial Project Manager for Site, 1/16/2008

Office of Environmental Quality Control

PC: Les Segundo, 4/18/2007

Department of Land & Natural Resources:

Land Use Division

State Historic Preservation Division

Office of Conservation and Coastal Lands

PC: Dolan Eversoll, 5/1/2007

Meeting with Samuel Lemmo, Chris Conger and Land Survey Division,
11/27/2007

Department of Accounting and General Services
Land Survey Division
Meeting with OCCL and State Surveyor, Reid Siarot, 11/27/2207
University of Hawaii, Sea Grant College

FEDERAL AGENCIES

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

U.S. Army
Corps of Engineers, Honolulu District
PC: Farley Watanabe, 6/19/2007
PC: Peter Galloway, 1/24/2008

OTHER ORGANIZATIONS

Campbell Industrial Park, pre-consult letter to be published in Campbell Local
Emergency Action Network (CLEAN) newsletter

PC: Mary Emerson, 5/16/2007

The Gas Company

PC: Primo Ramos, 5/17/2007

Tesoro Petroleum Corporation

P.C: Loie V. Tamoria, 5/29/2008

Sierra Club, Hawaii Chapter

8.2 DRAFT ENVIRONMENTAL ASSESSMENT REVIEW

Copies of the Draft EA have been submitted to the City and County of Honolulu Department of Planning and Permitting for their initial review. This department will determine which governmental agencies need to review the EA.

The following governmental agencies and organizations are expected to be sent a copy of this Draft EA for their review. A copy of this Draft EA also will be placed in the Kapolei Public Library during the 30-day public comment period to be held in the near future.

CITY AND COUNTY OF HONOLULU AGENCIES

Department of Design and Construction
Board of Water Supply
Department of Parks and Recreation

STATE OF HAWAII AGENCIES

Department of Business, Economic Development & Tourism:
Office of Planning
Hawaii Coastal Zone Management
Land Use Division

Department of Health:
Office of Environmental Quality Control
Clean Water Branch
Environmental Management Division
Hazard Evaluation and Emergency Response

Department of Land & Natural Resources:
Aquatic Resources Division
Office of Conservation and Coastal Lands
State Historic Preservation Division
Land Division
Water Resource Management Division
Environmental Center, University of Hawaii
Kapolei Public Library

FEDERAL AGENCIES

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

U.S. Army
Corps of Engineers, Honolulu District

OTHER ORGANIZATIONS

Sierra Club, Hawaii Chapter

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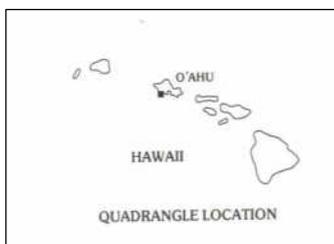
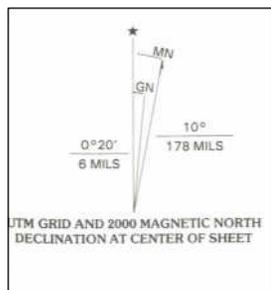
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http://capp.water.usgs.gov/gwa/ch_n/index.htm, 1999. (May 2007).

FIGURES



Project:
05404-015

Approved: DRD
Drawn: LJB

Date:
August 2008

Scale:
1:24,000

Figure 1 Project Location Map

91-008 Hanua Street
TMK 9-1-026: Parcel 026
Kapolei, Hawaii

MASA FUJIOKA & ASSOCIATES
ENVIRONMENTAL ■ GEOTECHNICAL ■ HYDROGEOLOGICAL CONSULTANTS

Source: USGS 7.5' Series Topographic: Ewa Quadrangle, 1998

Figure 2, Site and Surrounding Area Aerial Photograph

91-008 Hanua Street, Kapolei, Oahu

Photographed November 9, 2007



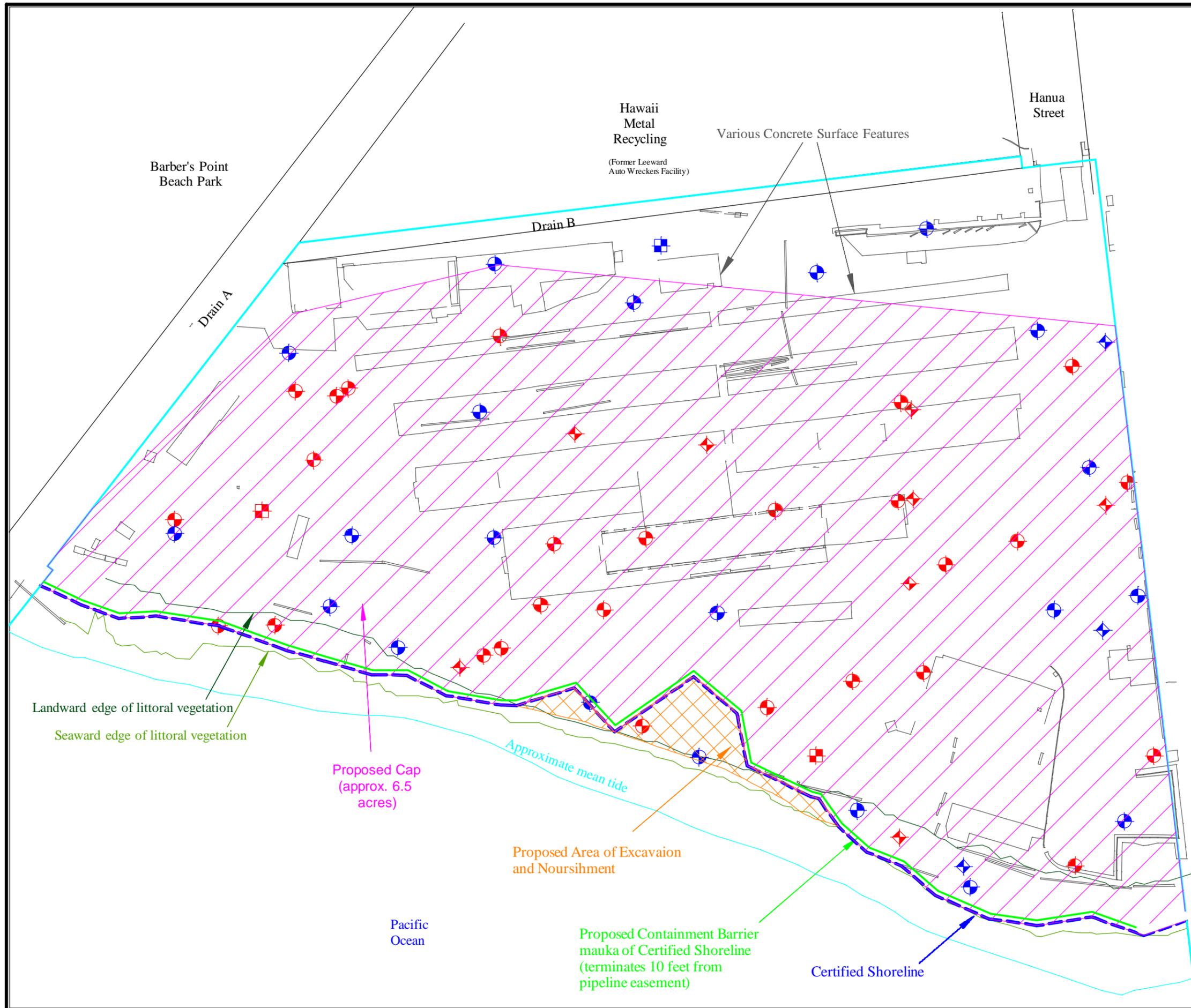
Figure 3, Site Aerial Photograph

91-008 Hanua Street, Kapolei, Oahu

Photographed November 9, 2007



91-008 Hanua Street
Kapolei, Oahu
TMK:(1)9-1-026:026
November 9, 2007



LEGEND:

Red Sample location requires capping due to either concentration of lead in soil or presence of ash layer .

Blue sample location indicates that concentration of lead in soil was less than the EPA PRG and no ash layer was detected.

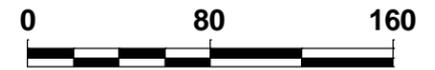
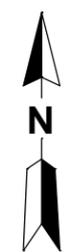
Proposed Containment Barrier at Certified Shoreline

Proposed Containment Barrier

Subject Property Boundary

Extent of proposed cap

Proposed Area of Excavation and Nourishment



Scale In Feet

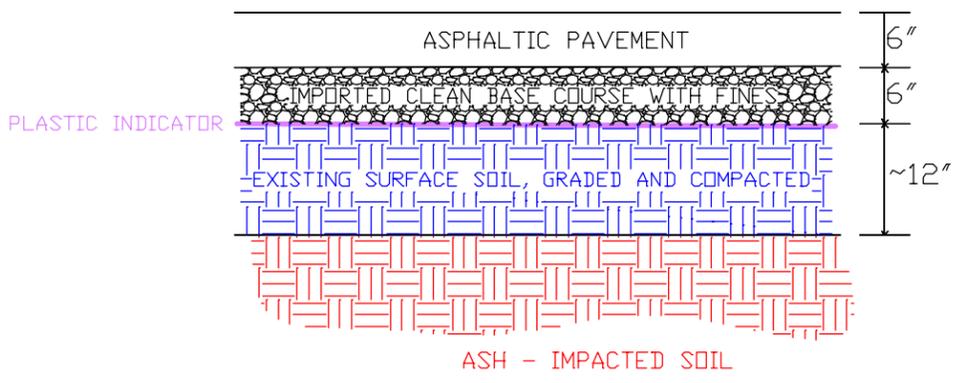
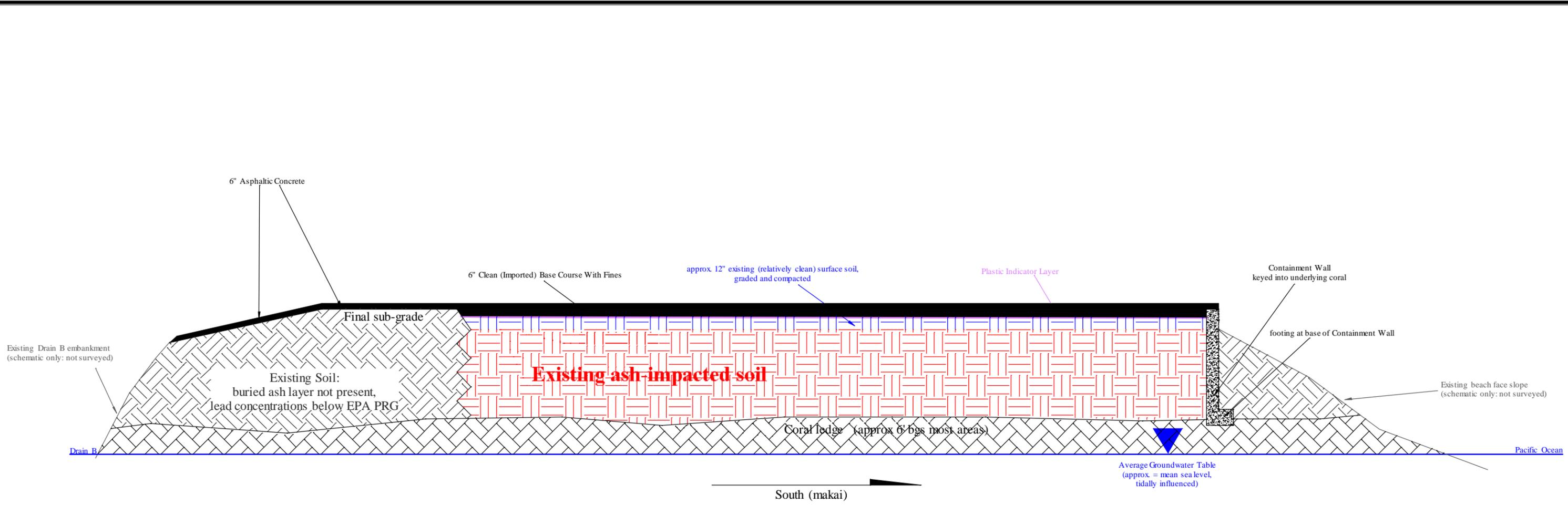
Boundaries, features, and dimensions are approximate
Source: Adapted from CH2M Hill, 2004.

Project: 05404-015
Approved: DRD
Drawn: FC
Date: August 2008
Scale: 1"=80'

Figure 4
Site Map Showing Proposed Containment Cap, Barrier, and Excavation and Nourishment Areas

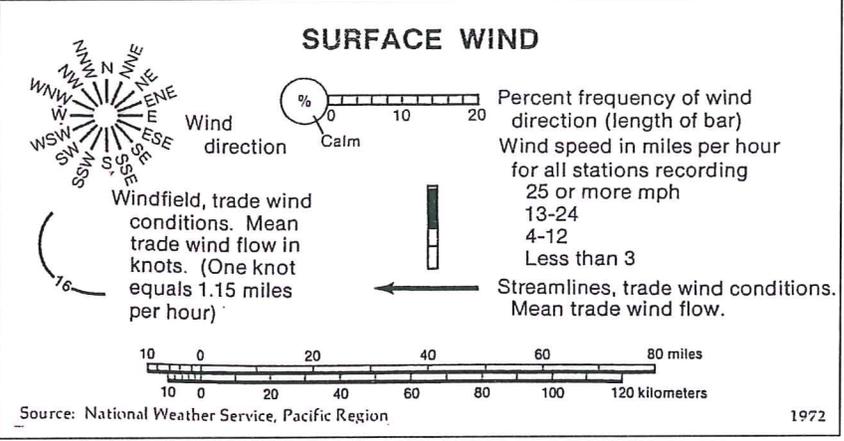
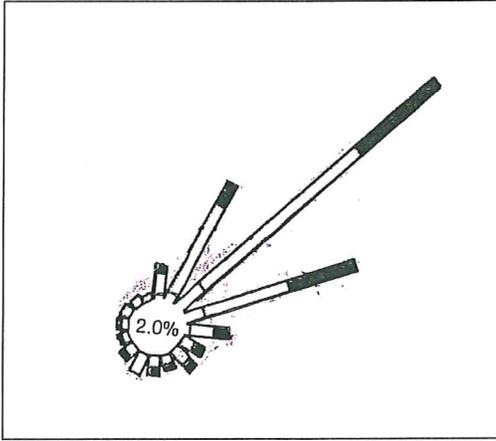
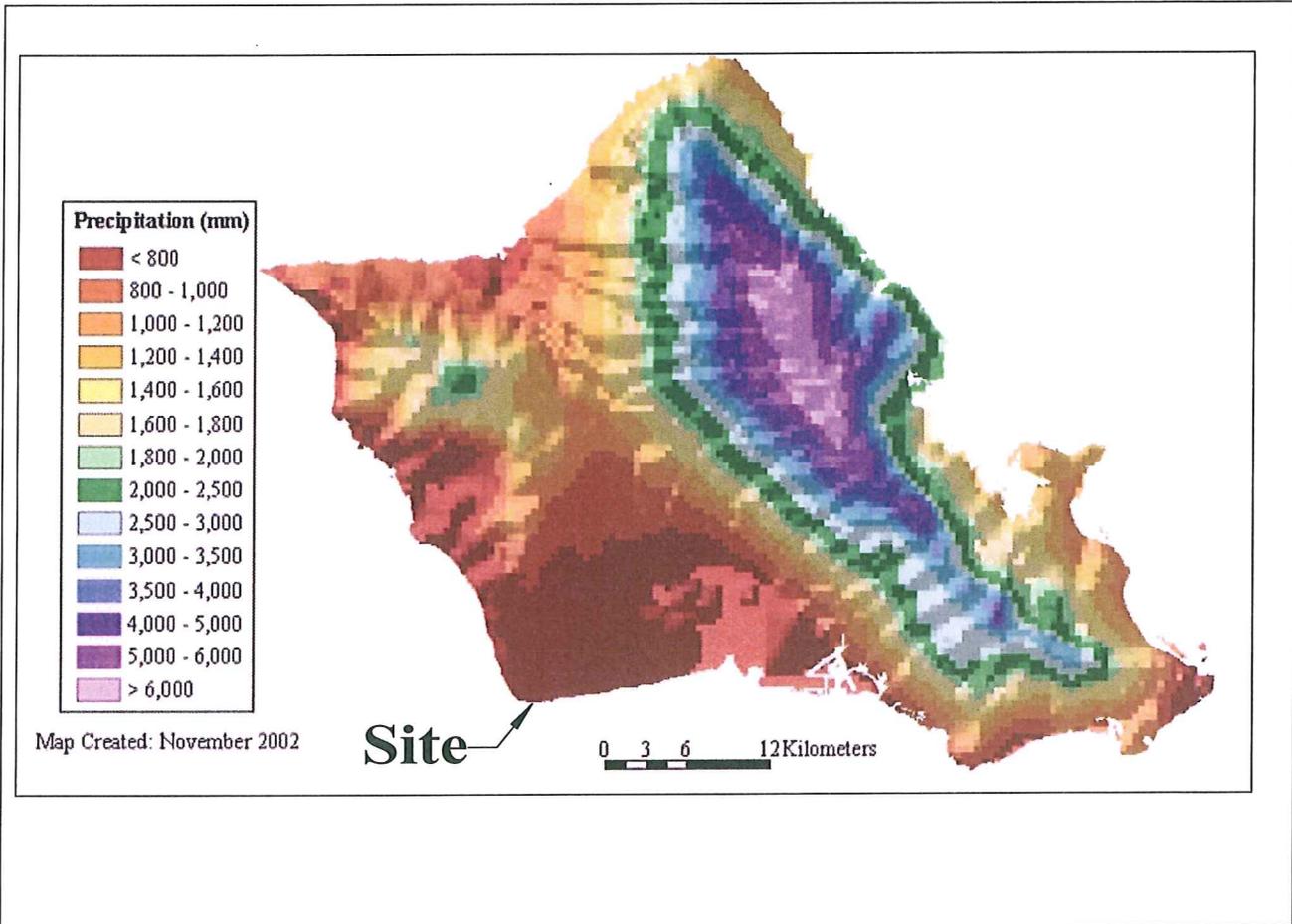
91-008 Hanua Street
TMK 9-1-026: Parcel 026
Kapolei, Hawaii

M-F-A MASA FUJIOKA & ASSOCIATES
ENVIRONMENTAL • GEOTECHNICAL • HYDROGEOLOGICAL CONSULTANTS



TYPICAL CAP DETAIL

Project: 05404-015	Figure 5 Proposed Containment Cap and Barrier Conceptual Model 91-008 Hanua Street TMK 9-1-026: Parcel 026 Kapolei, Hawaii
Approved: DRD Drawn: FC	
Date: Dec. 2005	
Scale: schematic	MASA FUJIOKA & ASSOCIATES ENVIRONMENTAL • GEOTECHNICAL • HYDROGEOLOGICAL CONSULTANTS



Notes:

Parameter-elevation Regression on Independent Slopes Model
 Created by Spatial Climate Analysis Service at
 Oregon State University in 2000.

Sources:

Surface Wind Map
 Atlas of Hawaii, University of Hawaii Press. 1983

Mean Annual Precipitation Map for Oahu, 1961-1990
 Climate Source, Inc. 2002



Project:
 05404-015

Approved: DRD
 Drawn: LJB

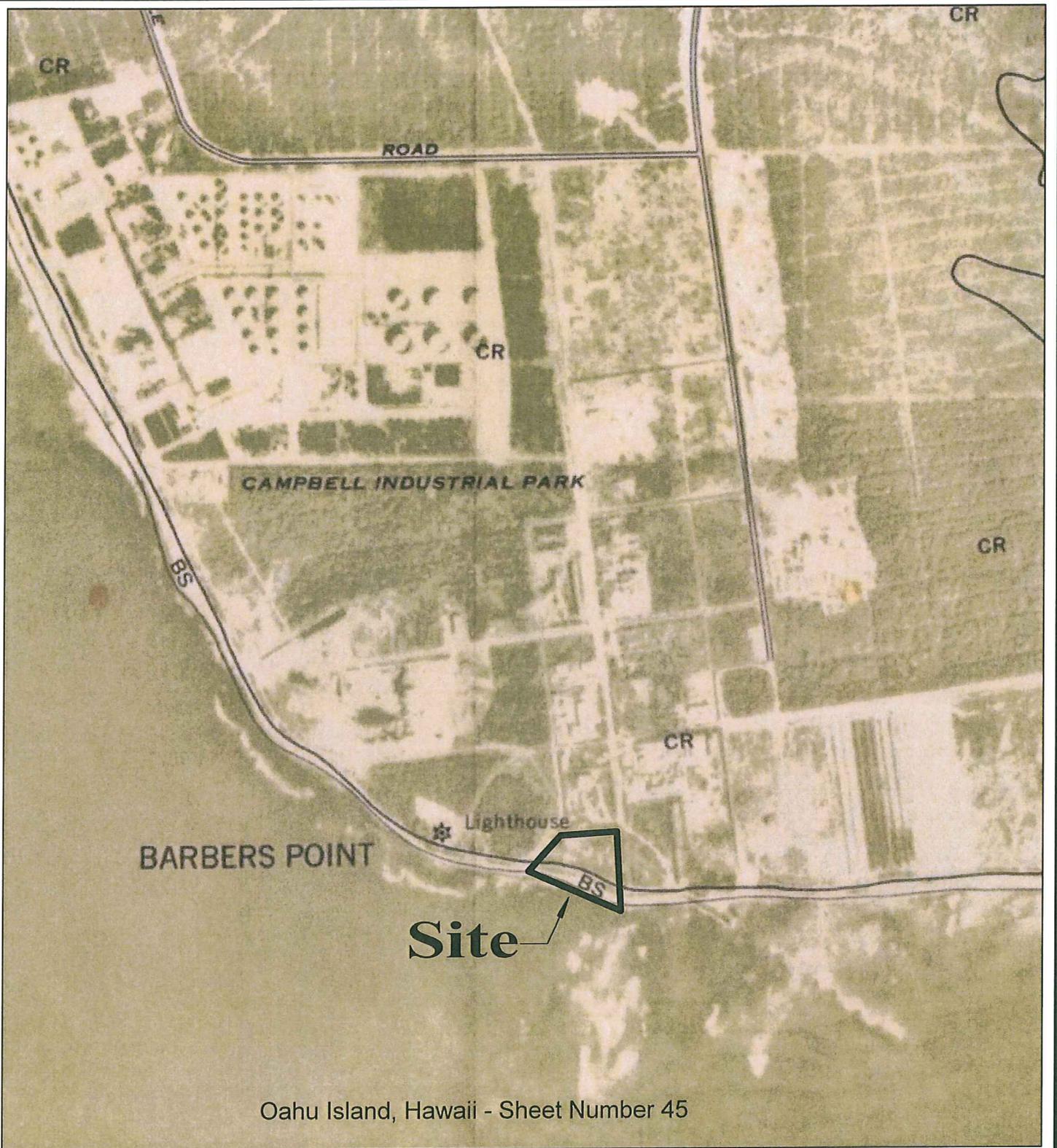
Date:
 August 2008

Scale:
 Not to scale

Figure 6
Median Annual Rainfall
and Surface Wind Map

91-008 Hanua Street
 TMK 9-1-026: Parcel 026
 Kapolei, Hawaii

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Legend:

- CR Coralline Rock
- BS Beach Sand



Project:
05404-015

Approved: DRD

Drawn: LJB

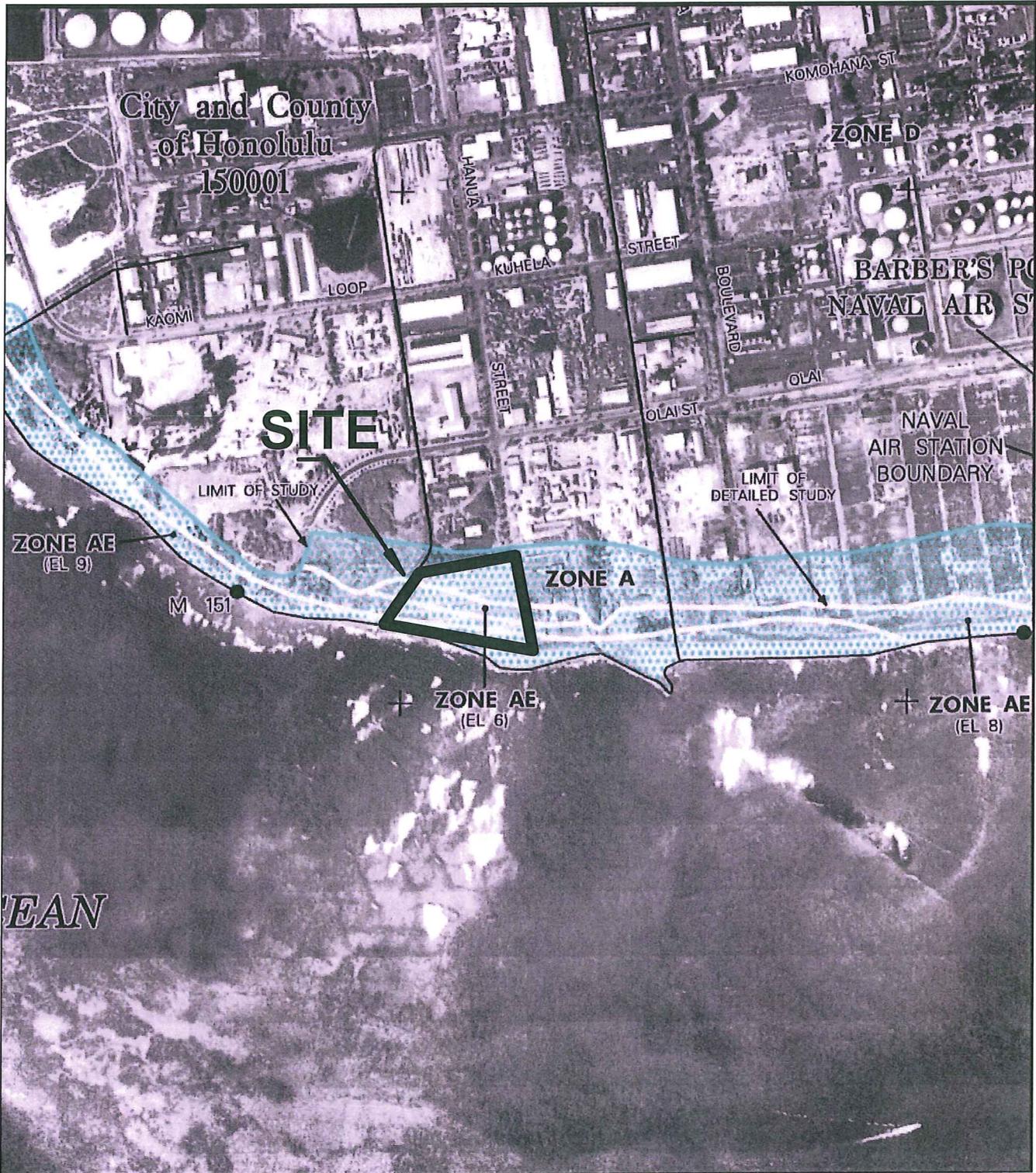
Date:
August 2008

Scale:
Not to scale

**Figure 7
Soils Map**

91-008 Hanua Street
 TMK 9-1-026: Parcel 026
 Kapolei, Hawaii

Source: USDA Soil Conservation Service, Soil Survey of Island of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii. 1972



Zones A and AE: High risk areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage

Source: FEMA FIRM City and County of Honolulu, Hawaii, Map Number 15003C0315F, September 30, 2004

Project:
05404-015

Approved: DRD
Drawn: LJB

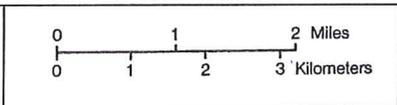
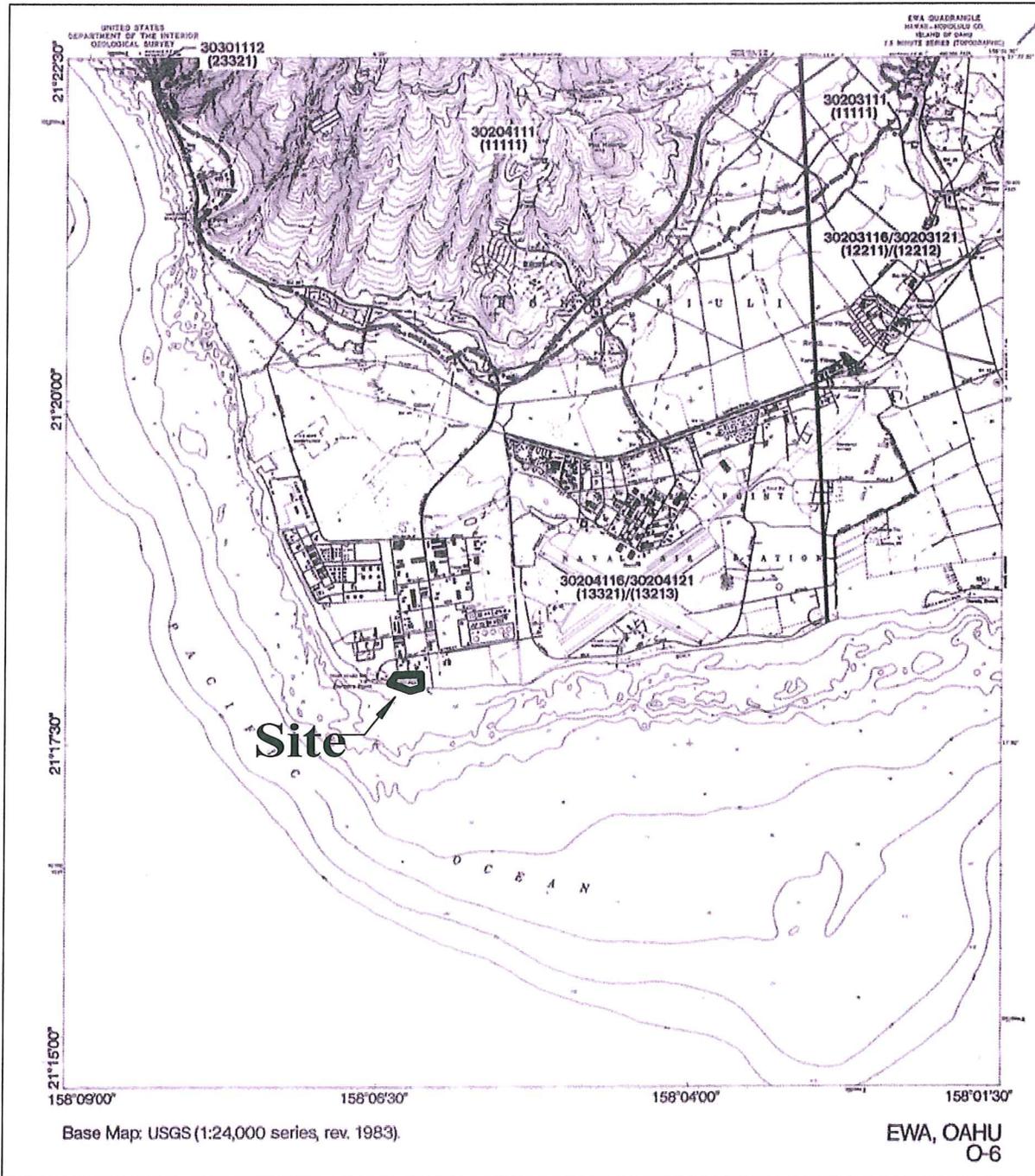
Date:
August 2008

Scale:
1" = 1000'

Figure 8 FEMA Flood Map

91-008 Hanua Street
TMK 9-1-026: Parcel 026
Kapolei, Hawaii

M_FA MASA FUJIOKA & ASSOCIATES
ENVIRONMENTAL • GEOTECHNICAL • HYDROGEOLOGICAL CONSULTANTS



Legend:

	Sector
	Aquifer System
	Aquifer Type
	Aquifer Code
	Status Code



Project: 05404-015

Approved: DRD
 Drawn: LJB

Date: August 2008

Scale: as shown

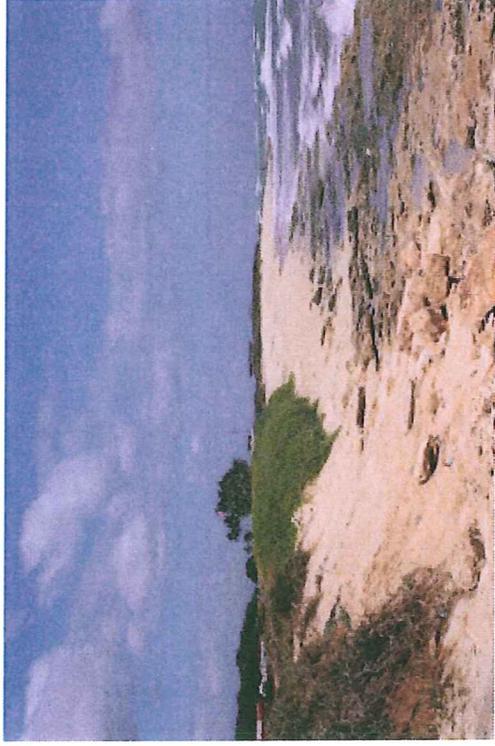
**Figure 9
 Aquifer Identification
 Map**

91-008 Hanua Street
 TMK 9-1-026: Parcel 026
 Kapolei, Hawaii

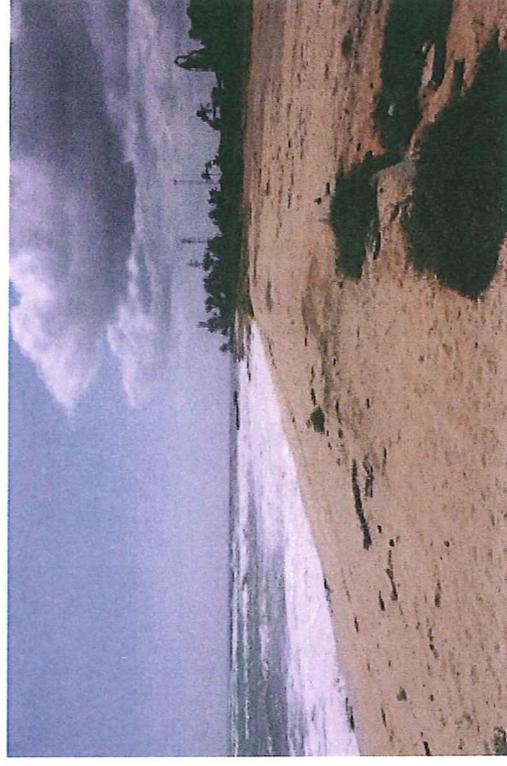
Source: Aquifer Identification and Classification for Oahu: Groundwater Protection Strategy for Hawaii, UH Water Resources Research Center. 1990

Figure 10, Shoreline Area Photographs

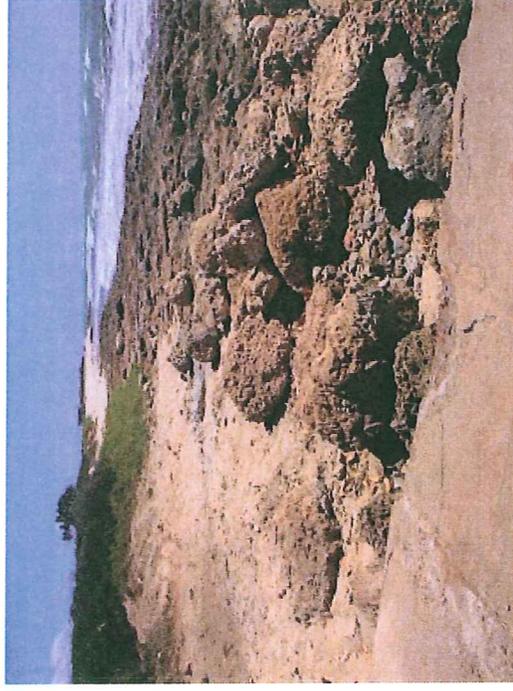
91-008 Hanua Street, Kapolei, Oahu



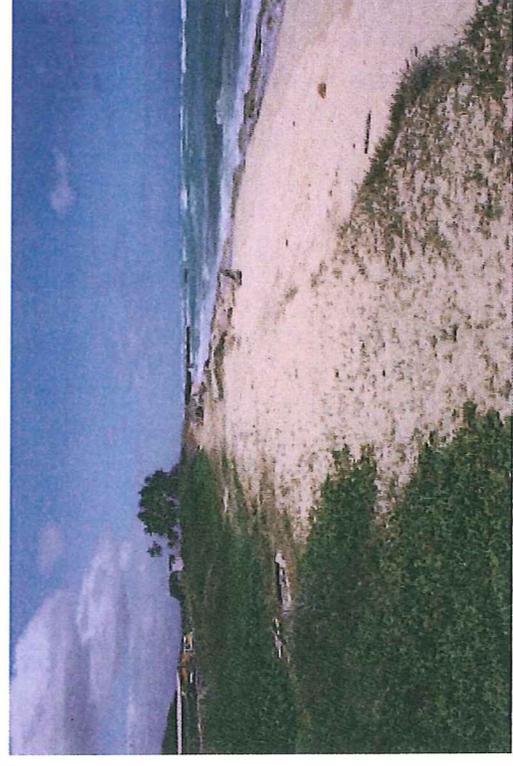
Central shoreline area-facing East 5/2007



Central shoreline area-facing West 5/2007



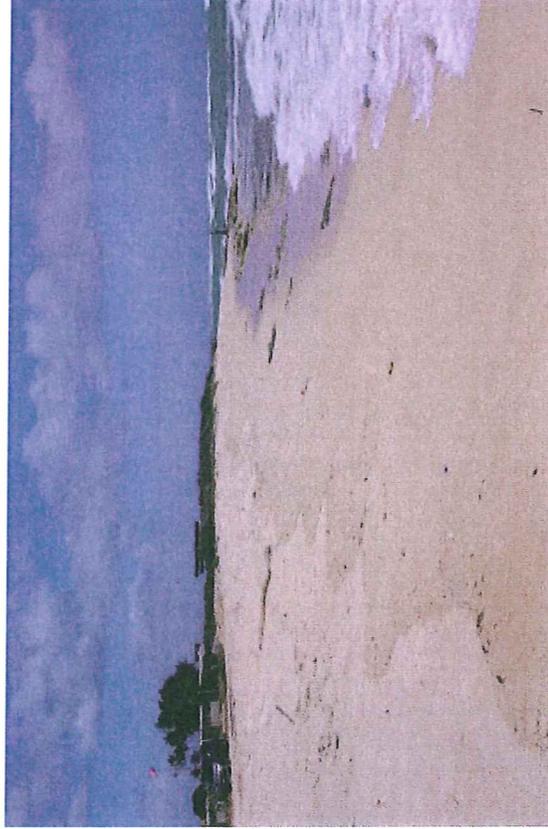
Western shoreline area-facing East 10/2007



Eastern shoreline area-facing East 5/2007

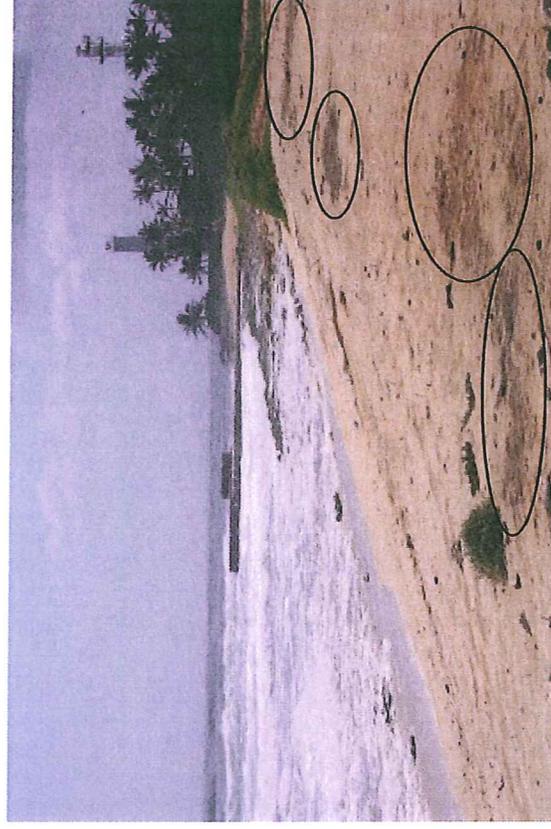
Figure 11, Excavation and Nourishment Area Photographs

91-008 Hanua Street, Kapolei, Oahu



5/2007

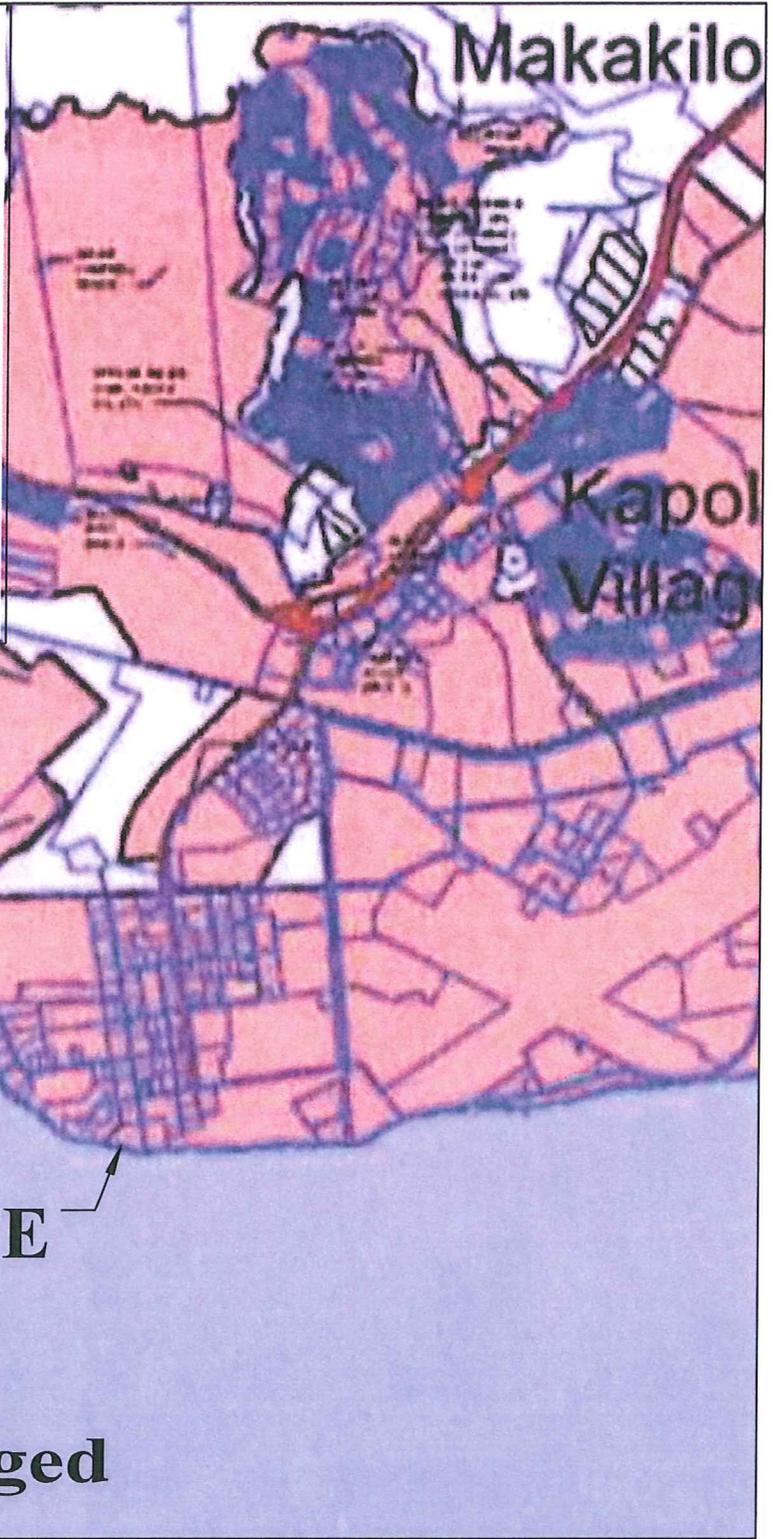
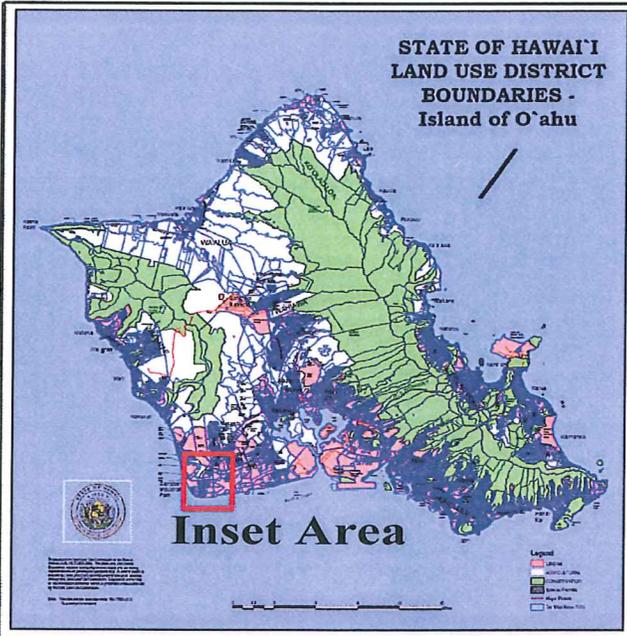
Central shoreline area-facing East



5/2007

Central shoreline area-facing West

Circled areas show evidence of ash-impacted soil



Inset Area Enlarged

Legend:

- Urban Land Use
- Shoreline Management Area



Project:

05404-015

Approved: DRD

Drawn: LJB

Date:

August 2008

Scale:

not to scale

Figure 12 State Land Use Map

91-008 Hanua Street
TMK 9-1-026: Parcel 026
Kapolei, Hawaii

Source: State of Hawaii Land Use District Boundaries
State Land Use Commission, 2005

MASA FUJIOKA & ASSOCIATES
ENVIRONMENTAL • GEOTECHNICAL • HYDROGEOLOGICAL CONSULTANTS

APPENDIX A

DEPARTMENT OF HEALTH LETTER REGARDING
REMEDIAL ALTERNATIVE SELECTION

LINDA LINGLE
GOVERNOR OF HAWAII



CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

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

In reply, please refer to:
File: EHAJHEER Office
2006-498-SPM

August 14, 2006

Leah B. Young (S), RPA, CCIM, CPM
Senior Property Manager
Reit Management & Research LLC - Hawaii
Property Management Division
Davies Pacific Center
841 Bishop Street, Suite 700
Honolulu, Hawaii 96813

Subject: James Campbell Industrial Park Lot 14, 91-008 Hanua Street

Dear Ms. Young:

The Hawaii Department of Health Hazard Evaluation and Emergency Response Office has reviewed the Remedial Alternatives Analysis (dated June 26, 2006) and considers that the document has adequately fulfilled the requirements for a remedial alternatives analysis pursuant to HAR 11-451-15(g). The Department agrees with your preferred remedial alternative for the site, which consists of:

- A barrier cap over the affected soil to prevent direct exposure, and
- A containment wall near the shoreline to prevent erosion and migration of ash material into the ocean,

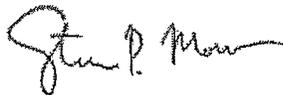
as described in the above-stated analysis. In light of the fact that land-use controls are the selected remedy for this site, you will be required by the Department to register an environmental covenant per the recently enacted Uniform Environmental Covenants law (refer to HB 1706) with the Bureau of Conveyances and the Department of Health.

The Department will now prepare a draft response action memorandum (RAM), pursuant to HAR 11-451-15(h), describing the proposed remedy. The draft RAM will be presented to the public for comment. After receipt and consideration of public comments, the Department will make a final remedy selection decision for the site and direct you to implement the selected remedy.

At your option, you may prepare a preliminary draft RAM as a base document from which the Department will develop the official draft RAM. If you wish to do so, please notify our office as your earliest convenience.

Should there be any questions, please do not hesitate to contact me at 586-4251. Thank you very much for your time and consideration in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven P. Mow". The signature is fluid and cursive, with a large initial "S" and "M".

Steven P. Mow
Remedial Project Manager
Hazard Evaluation and Emergency Response Office

APPENDIX B

PRE-CONSULTATION LETTER AND COMMENTS RECEIVED



MASA FUJIOKA & ASSOCIATES

A PROFESSIONAL PARTNERSHIP

ENVIRONMENTAL • GEOTECHNICAL • HYDROGEOLOGICAL CONSULTANTS

98-021 Kamehameha Highway, #337 • Aiea, Hawaii • 96701-4914

Phone 808 484-5366 • Fax 808 484-0007

May 15, 2007

MFA Project No. 05404-015

Office of Conservation and Coastal Lands
Department of Land and Natural Resources
State of Hawaii
1151 Punchbowl Street, Room 131
Honolulu, HI 96813

Subject: Proposed Barrier Cap Installation
James Campbell Industrial Park, Lot 14
91-008 Hanua Street, Kapolei, Oahu

Dear Sir/Madam,

Masa Fujioka and Associates (MFA) has been working with the owner of the above listed property and the Hawaii Department of Health (DOH) to investigate and cleanup lead-contaminated ash. MFA has received approval from DOH to install a barrier cap at the property (Figure 1). The barrier project entails two components, capping and containment. Lead contaminated ash will be capped with pavement and contained on the property by a subsurface containment wall. The barrier will keep future users of the property from being exposed to lead contaminated ash and will keep it from eroding to coastal waters and negatively impacting the marine environment.

The proposed project will be partially constructed within the Shoreline Setback Area, which triggers the requirement for an Environmental Assessment (EA) under State laws. The EA is being prepared to comply with the State's environmental policy and to give appropriate regard to environmental, economic, and technical concerns. We are notifying potentially interested parties to provide the opportunity for comments or the raising of potential concerns that can be addressed in the Draft EA.

Additionally, a draft copy of the EA will be made available for your review. A copy of the draft EA also will be placed in the Kapolei Public Library, 1020 Manawai Street, Kapolei, Oahu, for a 30-day public comment period to be held later this year.

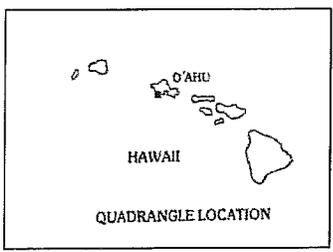
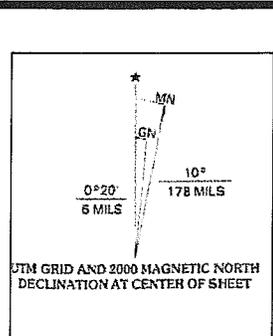
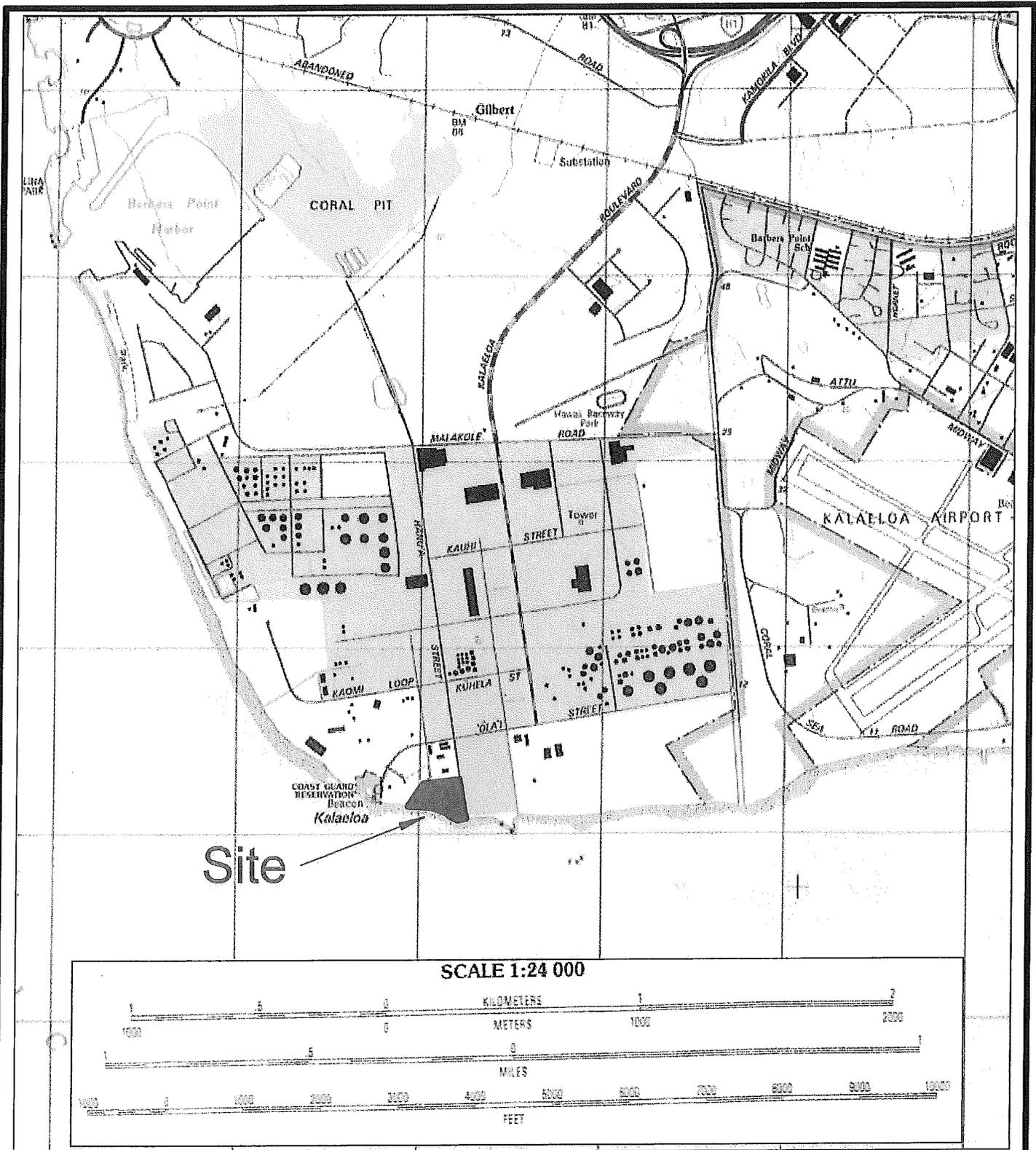
Please direct your comments to Lana Brodziak via mail at the letter head address, by e-mail to lbrodziak@masafujioka.com, or by fax 484-0007. We welcome your input.

Sincerely,

MASA FUJIUOKA & ASSOCIATES
A Professional Partnership

Lana Brodziak
Soil Scientist

Attachment: Figure1, Location Map



Project:
05404-015

Approved: DRD

Drawn: LJB

Date:
August 2008

Scale:
1:24,000

Figure 1

Project Location Map

91-008 Hanua Street
 TMK 9-1-026: Parcel 026
 Kapolei, Hawaii

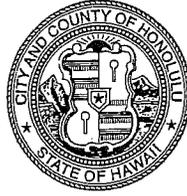
M-F A MASA FUJIOKA & ASSOCIATES
 ENVIRONMENTAL • GEOTECHNICAL • HYDROGEOLOGICAL CONSULTANTS

Source: USGS 7.5' Series Topographic: 'Ewa Quadrangle, 1998

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
TELEPHONE: (808) 768-8000 • FAX: (808) 527-6743
INTERNET: www.honolulu.gov • DEPT. WEB SITE: www.honoluluodpp.org

MUFI HANNEMANN
MAYOR



HENRY ENG, FAICP
DIRECTOR

DAVID K. TANOUE
DEPUTY DIRECTOR

2007/ELOG-1405(ST)

July 12, 2007

Ms. Lana Brodziak
Masa Fujioka & Associates
98-021 Kamehameha Highway, #337
Aiea, Hawaii 96701-4914

Dear Ms. Brodziak:

Subject: Early Consultation for a Draft Environmental Assessment
Proposed Barrier Cap and Containment Wall Installation
91-008 Hanua Street - Campbell Industrial Park (Lot 14) - Kapolei
Tax Map Key 9-1-26: 26

This is to acknowledge receipt of your letter dated May 15, 2007, regarding the preparation of an environmental assessment (EA) for the above-referenced project. As you clarified with our staff on May 22, 2007, the State Department of Health has not issued an approval for the proposed containment/barrier project, but it has agreed to the method of containment that would be acceptable to them.

We confirm that the proposed lead-contaminated ash containment project will require the approval of a Special Management Area Use Permit and a Shoreline Setback Variance (SV) from the Honolulu City Council, pursuant to Chapters 25 and 23, Revised Ordinances of Honolulu, respectively. We note that a certified shoreline survey is required for the SV application. We also suggest that a complete description of the beach fronting the site (i.e., type and width) is included in the Draft EA, including the recreational resources provided by this area (i.e., fishing, camping, diving, surfing, etc.).

If you have any questions, please contact Steve Tagawa of our staff at 768-8024.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Henry Eng".

for Henry Eng, FAICP, Director
Department of Planning and Permitting

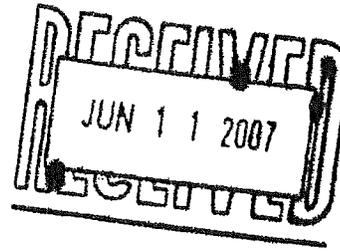
HE:cs

G:\SteveT\DEACampbellCap.pre

LINDA LINGLE
GOVERNOR OF HAWAII



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



CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

In reply, please refer to:
EMD / CWB

06020PKP.07

June 6, 2007

Ms. Lana Brodziak
Soil Scientist
Māsa Fujioka & Associates
98-021 Kamehameha Highway, #337
Aiea, Hawaii 96701-4914

Dear Ms. Brodziak:

Subject: Proposed Barrier Cap Installation at James Campbell Industrial Park, Lot 14

The Department of Health, Clean Water Branch (CWB), has reviewed the subject document and offers these comments on your project. Please note that our review is based solely on the information provided in the subject document and its compliance with Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You 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://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.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. Please call the Army Corps of Engineers at (808) 438-9258 to see if this project requires a Department of the Army (DA) permit. Permits may be required for work performed in, over, and under navigable waters of the United States. Projects requiring a DA permit also require a Section 401 Water Quality Certification (WQC) from our office.

3. You are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for NPDES general permit coverage by submitting a Notice of Intent (NOI) form:

- a. Storm water associated with industrial activities, as defined in Title 40, Code of Federal Regulations, Sections 122.26(b)(14)(i) through 122.26(b)(14)(ix) and 122.26(b)(14)(xi).
- b. Storm water associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. **An NPDES permit is required before the start of the construction activities.**
- c. Treated effluent from leaking underground storage tank remedial activities.
- d. Construction dewatering effluent.

You must submit a separate NOI form for each type of discharge at least 30 days prior to the start of the discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this type of discharge, the NOI must be submitted 30 days before to the start of construction activities. The NOI forms may be picked up at our office or downloaded from our website at:
<http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html>.

4. For types of wastewater not listed in Item 3 above or wastewater discharging into Class 1 or Class AA waters, you must obtain an NPDES individual permit. An application for an NPDES individual permit must be submitted at least 180 days before the commencement of the discharge. The NPDES application forms may be picked up at our office or downloaded from our website at
<http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html>.

5. You must also submit a copy of the NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the CWB that SHPD has or is in the process of evaluating your project. Please submit a copy of your request for review by SHPD or SHPD's determination letter for the project along with your NOI or NPDES permit application, as applicable.

Ms. Lana Brodziak

June 6, 2007

Page 3

6. 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://www.hawaii.gov/health/environmental/water/cleanwater/index.html>, or contact the Engineering Section, CWB, at 586-4309.

Sincerely,

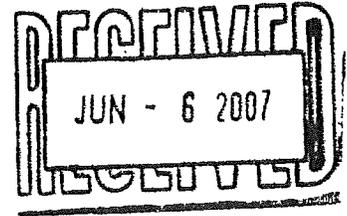

ALEC WONG, P.E., CHIEF
Clean Water Branch

KP:np

LINDA LINGLE
GOVERNOR OF HAWAII



ALLAN A. SMITH
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

June 4, 2007

Masa Fujioka & Associates
98-021 Kamehameha Highway #337
Aiea, Hawaii 96701-4914

Attention: Ms. Lana Brodziak

Gentlemen:

Subject: Pre-Consultation for Draft Environmental Assessment for proposed barrier cap installation, Kapolei, Oahu, Tax Map Key: (1) 9-1-26:26

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 comment.

Other than the comments from Land Division – Oahu District, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Russell Y. Tsuji".

Russell Y. Tsuji
Administrator



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

May 18, 2007

MEMORANDUM

From: ~~TO:~~

DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division – Oahu District

To: ~~FROM:~~

Russell Y. Tsuji

SUBJECT: Pre-Consultation for Draft Environmental Assessment for proposed barrier cap installation

LOCATION: Kapolei, Oahu, Tax Map Key: (1) 9-1-26:26

APPLICANT: Masa Fujioka & Associates

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by June 1, 2007.

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 my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed: _____

Date: 5/23/07