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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

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OFC. OF ENVIRONMENTAL QUALITY CONTROL

Director of the Office of Environmental Quality Control
Department of Health, State of Hawaii
235 S. Beretania Street, Room 702
Honolulu, Hawai'i 96813

Dear Sir/Madam:

Draft Environmental Assessment
Kawaihae Small Boat Harbor
Road and Waterline System Improvements
South Kohala, Island of Hawaii
Tax Map Key: (03) 6-1-003: Por. 025, 026, 047, and 051

With this letter, the Department of Land and Natural Resources hereby transmits the subject draft environmental assessment and anticipated finding of no significant impact for the subject project situated in Kawaihae, Tax Map Key: (03) 6-1-003: Por. 025, 026, 047, and 051, in the South Kohala District on the island of Hawaii, for publication in the next available edition of the Environmental Notice.

Enclosed is a completed OEQC Publication Form, two copies of the DEA-AFNSI, an Adobe Acrobat PDF file of the same, and an electronic copy of the publication form in MS Word. We have also submitted the summary of the action in a text file by electronic mail to your office.

If there are any questions, please contact Mr. Carty Chang, Chief Engineer of our Engineering Division, at 587-0230.

Sincerely,

for WILLIAM J. AILA, JR.
Chairperson

Enclosures

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

Project Name: Kawaihae Small Boat Harbor (SBH) South - Waterline and Access Road Improvements

Island: Hawaii

District: South Kohala

TMK: 3rd Tax Division 6-1-003: Portion 026

Permits:

State Of Hawaii

- Department of Health - NPDES Permit (NOI-C, Other NOIs as required)
- Department of Transportation – Highways Division

County Of Hawaii

- Grading/Grubbing Permit
- Flood Zone Variance (if applicable)

Received
NOV 22 2013
1:53 pm

Proposing/Determination Agency:

State of Hawaii
Department of Land and Natural Resources
Division of Boating and Ocean Recreation
333 Queen Street, Suite 300
Honolulu, Hawaii 96813
Contact: Ms.Valerie Suzuki
Phone: 808-587-0275

Consultant:

AECOM, Inc.
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813
Contact: Ms. Diane Kodama, Senior Project Manager
Phone: 808-521-3051

Status (check one only):

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

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

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

__Act 172-12 EISPN — Submit the proposing agency notice of determination on agency letterhead, an OEQC publication form, and an electronic word processing summary (you may send the

summary to oeqchawaii@doh.hawaii.gov). NO environmental assessment is required and a 30-day consultation period upon publication in the periodic bulletin.

__DEIS

The proposing agency simultaneously transmits to both the OEQC and the accepting authority, a hard copy of the DEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the DEIS (you may send both the summary and PDF to oeqchawaii@doh.hawaii.gov); a 45-day comment period ensues upon publication in the periodic bulletin.

__FEIS

The proposing agency simultaneously transmits to both the OEQC and the accepting authority, a hard copy of the FEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the FEIS (you may send both the summary and PDF to oeqchawaii@doh.hawaii.gov); no comment period ensues upon publication in the periodic bulletin.

__ Section 11-200-23 Determination

The accepting authority simultaneously transmits its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS to both OEQC and the proposing agency. No comment period ensues upon publication in the periodic bulletin.

__Section 11-200-27 Determination

The accepting authority simultaneously transmits its notice to both the proposing agency and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is not required. No EA is required and no comment period ensues upon publication in the periodic bulletin.

__Withdrawal (explain)

See summary following page>

Summary:

This current project is needed to ensure the implementation of the 2003 Small Boat Harbor (SBH) (South) Master Plan. The objective of this project is to implement the second phase of master planning features to satisfy the public and commercial need for a modern small boat harbor at Kawaihae. This project encompasses two specific elements. The existing access road will be widened to 24 feet and be comprised of a 3-inch thick layer of asphalt concrete atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4 inch-wide double-yellow centerline striping and white stop bar. The second element involves the installation of two new potable waterlines (8-inch and 4-inch, respectively), which would be connected to an existing 12-inch waterline along Route 270 with new isolation valves, run westerly down the deep-draft harbor south access road, then turn southward beneath the access roadway down to the SBH. These water lines will be buried and will run parallel to the proposed roadway improvements described above.

DRAFT

ENVIRONMENTAL ASSESSMENT
KAWAIHAE SMALL BOAT HARBOR SOUTH

ROADWAY AND WATERLINE SYSTEM IMPROVEMENTS

State of Hawaii
Department of Land and Natural Resources
Division of Boating and Ocean Recreation
333 Queen Street, Suite 300
Honolulu, Hawaii 96813

November 2013

DRAFT

ENVIRONMENTAL ASSESSMENT
KAWAIHAE SMALL BOAT HARBOR SOUTH

ROADWAY AND WATERLINE SYSTEM IMPROVEMENTS

Prepared for:

State of Hawaii
Department of Land and Natural Resources
Division of Boating and Ocean Recreation
333 Queen Street, Suite 300
Honolulu, Hawaii 96813

Prepared by:

AECOM Technical Services, Inc.
1001 Bishop Street, Suite 1600
Honolulu, HI 96813-3698

November 2013

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ACRONYMS AND ABBREVIATIONS

§	Section
°F	degree Fahrenheit
AIS	Archaeological Inventory Survey
BMP	best management practice
CDP	Community Development Plan
cfs	cubic foot per second
CZM	Coastal Zone Management
DDH	deep draft harbor
DHHL	Department of Hawaiian Home Lands
DLNR	Department of Land and Natural Resources
DOBOR	Division of Boating and Ocean Recreation
DOH	State of Hawaii Department of Health
DPW	Department of Public Works
DWS	Department of Water Supply
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency, United States
FF	fire flow
FIRM	Flood Insurance Rate Maps
FL	fill land
FONSI	Finding of No Significance
HAR	Hawaii Administrative Rules
HDOT	State of Hawaii Department of Transportation
HRS	Hawaii Revised Statutes
ind	Industrial
LUPAG	Land Use Pattern Allocation Guide
mdu	Medium Density Urban
mgd	million gallons per day
NOI	notice of intent
NPDES	National Pollutant Discharge Elimination System
OCCL	Office of Conservation and Coastal Lands
ope	Open Area
SBH	Small Boat Harbor
SHPD	State Historic Preservation Division
SMA	Special Management Area
SSCBMP	Site-Specific Construction Best Management Practice
TWIC	Transportation Workers Identification Credential
U.S.	United States
USACE	U.S. Army Corps of Engineers

1.0 PROJECT SUMMARY

Project Name:	Kawaihae Small Boat Harbor (SBH) South Roadway and Water System Improvements Environmental Assessment (EA)
Proposing/Determination Agency:	State of Hawaii Department of Land and Natural Resources (DLNR) Division of Boating and Ocean Recreation (DOBOR) 333 Queen Street, Suite 300 Honolulu, Hawaii 96813 Contact: M. Valerie Suzuki Phone: 808-587-0275
Consultant Agent:	AECOM Technical Services, Inc. 1001 Bishop Street, Suite 1600 Honolulu, Hawaii 96813 Contact: Ms. Diane Kodama, Senior Project Manager Phone: 808-521-3051
Location:	Kawaihae SBH (South) Kohala, Island of Hawaii, Hawaii
TMK Designation:	3rd Tax Division 6-1-003: Por. 026
Property Owner:	State of Hawaii Department of Transportation (HDOT)
State Land Use:	Urban
Land Use Pattern Allocation Guide (LUPAG) Classification:	Industrial (ind), Medium Density Urban (mdu), Open Area (ope)
County Zoning:	MG-1a (General Industrial -1 acre), Open, RM-1.5 (Multiple Family Residential -1.5 acre)
County General Plan:	Open
Proposed Action:	State of Hawaii DLNR is proposing a new 24 foot-wide improved-access roadway that follows the existing alignment of a coral access road leading to the Kawaihae SBH South on the Island of Hawaii. Additionally, two waterlines will be added and connected to an existing 12 inch-wide waterline along Akoni Pule Highway. The waterlines would run contiguous to the new improved-access roadway from a water main connection near Akoni Pule Highway to the existing SBH site.
Determination:	Anticipated Finding of No Significant Impact

2.0 PROJECT DESCRIPTION

2.1 PROJECT HISTORY, NEED AND OBJECTIVE

This project represents Phase II of the implementation of the planning, construction, and improvements associated with the Kawaihae SBH. The SBH entrance channel and west breakwater were completed in 1950. Construction of the west breakwater extension and east revetted mole with connecting breakwater was completed in July 1998. In 2003, at the request of the DLNR-DOBOR, the United States (U.S.) Army Corps of Engineers (USACE) completed an overall master plan for the SBH in 2003. A more comprehensive master plan encompassing the entire harbor network on the Island of Hawaii was completed by HDOT in 2011.

The objective of this current project is to implement the second phase of the harbor improvements approved SBH master planning to satisfy the public and commercial need for a modern SBH at this location to serve this area of the Island of Hawaii. A location map is provided in Figure 2-1.

2.2 PREVIOUS DOCUMENTS ASSOCIATED WITH THE SBH DEVELOPMENT

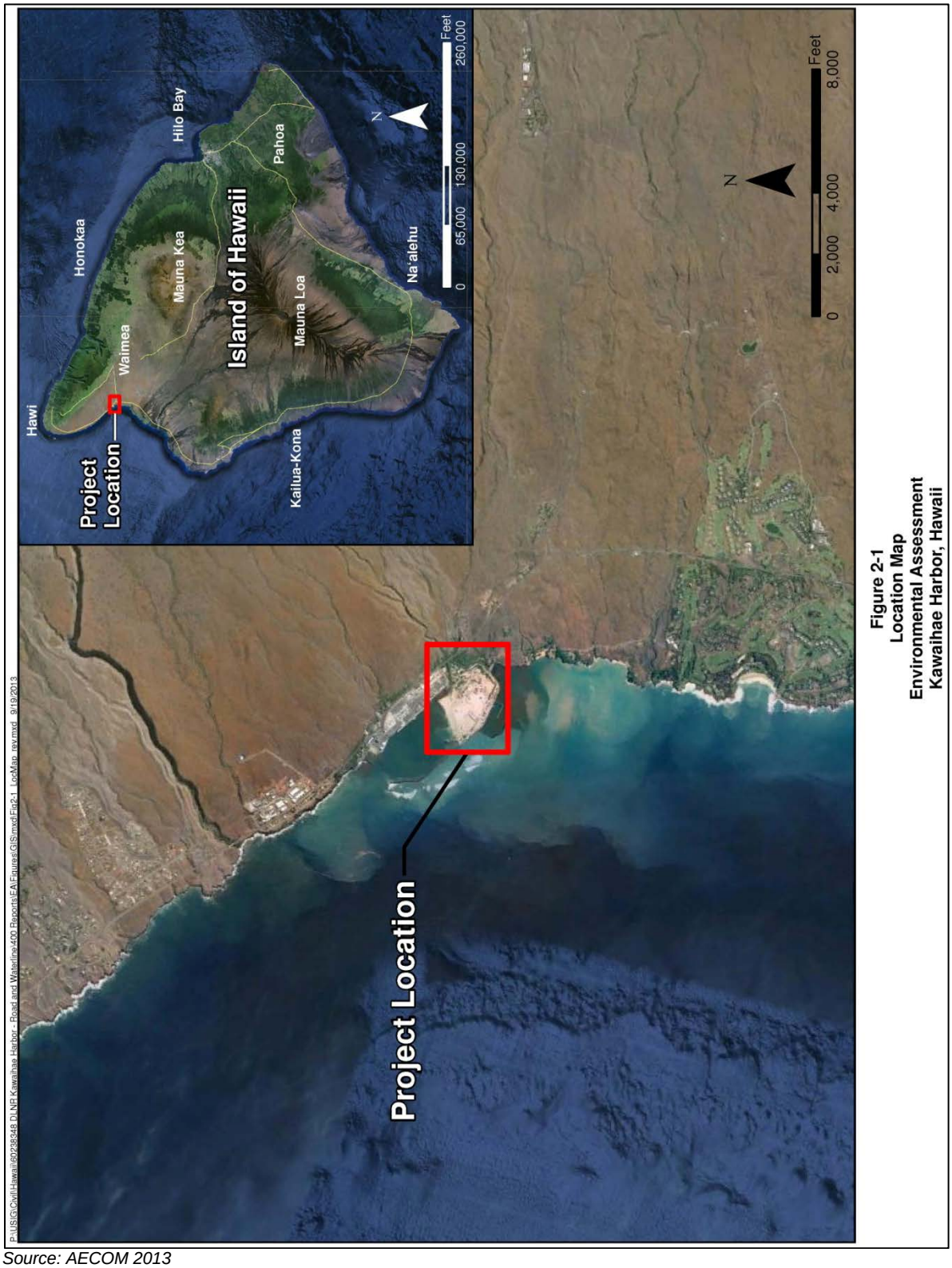
Table 2-1 lists the publicly available documents that helped develop the impact analysis and recommendations associated with the current project.

Table 2-1: Publicly Available Documents Used for Analysis

Date	Details	Reference
1985	An EIS for the development of Kawaihae Harbor is prepared and accepted by the HDOT–Harbors Division.	HDOT 1985
1994	USACE prepares and issues a *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* with the DLNR-DOBOR as the lead state agency.	USACE 1994
2003	USACE on behalf of DLNR-DOBOR contracts with AECOM (M&E) to complete a Master Plan for the Kawaihae SBH.	M&E Pacific 2003
2008	An EA is subsequently prepared by AECOM (M&E) and a FONSI issued in 2008 for Phase I implementation of the 2003 Kawaihae SBH Master Plan improvements. The proposed Phase I improvements include construction of a boat launch ramp with loading docks, a floating dock with mooring blocks, a comfort station with outdoor shower, a boat wash down area, and various parking areas.	M&E Pacific 2008
2011	HDOT-Harbors Division completes the Commercial Harbors 2035 Master Plan Update. This document is primarily focused on the commercial/military aspects of the Kawaihae Harbor under the jurisdiction of HDOT-Harbors Division. However, this current road/waterline project (Phase II) is shown as a "conceptual perimeter roadway alignment" in Figure 4.2 of that Master Plan document.	HDOT 2011
2013	HDOT – Harbors Division completes a *Draft Environmental Assessment* for infrastructure improvements to Kawaihae Harbor including dredging. (Publication of the Final EA is currently pending.)	HDOT 2013
2013	This current EA document encompasses Phase II and is associated with the implementation of the SBH as outlined in the 2003 Kawaihae SBH Master Plan and the Commercial Harbors 2035 Master Plan Update.	—

EIS Environmental Impact Statement

Figure 2-1: Location Map



Source: AECOM 2013

2.3 PROJECT ELEMENTS

A new 24-foot wide roadway would more or less follow the existing alignment of a coral access road between the commercial harbor access road and the facilities of the SBH area. This roadway extends in a southerly arc west of Akoni Pule Highway and parallel to the shoreline to the SBH (Appendix A - Engineering Plans Dated February 2013).

The existing access road will be widened to 24 feet and be comprised of a 3-inch thick layer of asphalt concrete atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4-inch wide double-yellow centerline striping and 12-inch wide white stop bar. Surface drainage will be directed off the roadway via pavement cross slopes to roadway edges and managed by 5-foot wide vegetated earthen swales, which will convey drainage longitudinally to 6-foot diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

This EA also assesses two new potable waterlines (4-inch and 8-inch, respectively), which would be connected to an existing 12-inch waterline along Akoni Pule Highway. The new water lines would be connected to the existing 12-water line with new isolation gate valves, run westerly down the deep-draft harbor south access road, then turn southward beneath the access roadway down to the SBH. Placement of the water lines would require trenching up to four feet for placement of the lines, prior to replacing the soil over the buried lines. As the project site exceeds 1 acre, issuance of a National Pollutant Discharge Elimination System (NPDES) Permit and a Site-Specific Construction Best Management Practice (SSCBMP) Plan for Storm Water Discharge during Construction Activities, is required from the State of Hawaii Department of Health (DOH). Figure 2-2 presents the site plan.

2.4 PROJECT COST AND CONSTRUCTION DURATION

This project is budgeted at approximately 2.5 million dollars to implement and approximately 270 days to construct depending on weather and other variable factors.

2.5 TRIGGERS FOR AN ENVIRONMENTAL ASSESSMENT

This EA is required under provisions of Hawaii Revised Statutes (HRS) Chapter 343 due to the use of State lands and funds, and the location of the project site within the Special Management Area (SMA) (HRS 343).

In accordance with HRS Chapter 343 and the Hawaii Administrative Rules (HAR) Section (§) 11-200-12, an EA is required to provide a written evaluation of environmental, technical, social, and economic impacts of the proposed roadway and waterline improvements at Kawaihae SBH (HRS 343 and DOH 2008b). The EA process includes periods of public review, in which the affected community may voice their comments and concerns to the proposed work. Where an EA establishes that the proposed activity will not affect the surrounding environment to a significant degree, the accepting agency will issue a Finding of No Significant Impact (FONSI).

2.6 ALTERNATIVES CONSIDERED

Under the no-action alternative, the proposed improved access roadway and the two waterlines would not be built and the environmental impacts that would have resulted from the proposed action would not occur. Under previous environmental documents associated with the SBH and specifically with the 1985 Environmental Impact Statement (EIS), a range of alternatives for development types and locations for new SBH facilities, including a no-action alternative, were proposed and analyzed. The existing SBH approved facilities including the current project, represent the preferred alternative and reflect the proposed improvements described in the 2003 Master Plan. Other than the no-action alternative, no other viable alternatives to the project are being considered at this time.

Figure 2-2: Site Plan

Source: AECOM 2013

3.0 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES

3.1 CLIMATE

According to the Western Regional Climate Center, the average temperature at the nearby Puukohola Heiau, Hawaii is 75.7 degrees Fahrenheit (°F) with average minimum and maximum monthly temperatures ranging from 67.6°F to 83.9°F, respectively. The annual rainfall averages approximately 10.96 inches. As described in the *Atlas of Hawaii, Third Edition*, Hawaii has generally two recognized seasons, the *kau* or the warm season, when the sun is almost directly overhead and northeasterly tradewinds are present, and the *hooilo* or the season of cooler temperatures, lower sun, variable winds and extensive rains (Juvik 1998). The northeasterly tradewinds predominate during the summer months (May through September), and weaken during the winter (November through March) when southerly or westerly winds occur due to localized low pressure and frontal systems. Located on the leeward side of the Island of Hawaii, Kawaihae is not exposed to the northeasterly tradewinds; however, the area is subjected to western "Waimea winds" from the west side of the surrounding mountains.

Impacts and Mitigation Measures

There are no impacts to climate and no mitigations are being proposed related to the climate.

3.2 AIR QUALITY

Ambient air quality refers to the state of purity of the general outdoor atmosphere. Ambient air quality is regulated under the Clean Air Act. The U.S. Environmental Protection Agency (EPA) established National Ambient Air Quality Standards for six criteria pollutants as a measure of ambient air quality. These six criteria pollutants include carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, ozone and particulate matter less than or equal to 10 micrometers. In addition, the State of Hawaii established standards for carbon monoxide and nitrogen dioxide that are more stringent that Federal standards as well as an additional ambient air standard for hydrogen sulfide.

There are five air monitoring stations on the Island of Hawaii; however, there is no air quality data for Kawaihae. The nearest station is located in Kona. Volcanic gases emitted during eruptions from Kilauea are the greatest source of air pollution. The main components of these emissions are water vapor, carbon dioxide, and sulfur dioxide. Sulfur dioxide is the main cause for concern, because it reacts with oxygen, dust particles, and atmospheric moisture to form sulfuric acid droplets and sulfate particles that result in "vog" and acid rain. Vog causes such symptoms as headaches, itchy eyes, breathing discomfort, and can aggravate pre-existing respiratory conditions. Vog is estimated to contribute approximately 13% of total sulfur dioxide emission.

Another source of pollution is the dust from strong wind blowing the coralline sand in the air. No other known sources of air pollution are found nearby. According to DOH, air quality in the state of Hawaii continues to be one of the best in the nation, and criteria pollutant levels remain well below federal ambient air quality standards. The DOH has determined that the State of Hawaii is in attainment for all federal ambient air quality standards.

Impacts and Mitigative Measures

The principle sources of air pollution associated with this project will be fugitive dust emissions resulting from grading activities. These effects are short-term in nature and will cease upon completion of the proposed projects. No long-term effects on air quality due to the operation of construction equipment or vehicles are anticipated as their presence and use will be temporary. Dust mitigative measures such as water spraying shall be considered under the Best Management Practices (BMPs) during the construction phase.

No cumulative effects on air quality are anticipated due to the temporary nature of the construction activity. No long-term mitigative measures are required (M&E Pacific, Inc. 2008).

3.3 TOPOGRAPHY

The project site includes terrestrial areas extending along the shoreline in a roughly 24-foot wide corridor. The land in the area is mildly undulating with ground elevation ranging from approximately 6.5 feet to 20 feet above mean lower low water. The existing shoreline is protected by a man-made rock revetment that has a crest elevation of approximately 6.5 feet. A ridge runs northwest-southeast, parallel to the SBH southwestern shoreline.

Impacts and Mitigation Measures

The proposed roadway improvements and water line placement within the roadway corridor would involve some earthwork grading and paving in the project area to create an even all-weather terrain to accommodate vehicular traffic. The project will also include subsurface open trenching of 2 feet along the length of the project corridor to allow for the placement of the two water lines. Once placement of these water lines is completed, the corridor will be covered and returned to its pre-disturbed state. Although the proposed project will slightly modify the site's existing land-side topography, the overall drainage pattern, flow, and storm water quantity will not be significantly impacted as discussed in Section 3.6.

3.4 SOILS

According to the *Soil Survey of the Island of Hawai'i, State of Hawai'i,* the soil at and adjacent to the project area is fill land (FL). FL is typical well drained. It is slowly permeable, has medium runoff, and has a slight erosion hazard. Generally, the land at the Kawaihae SBH (South) consists of in-filled, dredged coralline spoil material obtained from the excavation of the Kawaihae deep draft harbor (DDH) that occurred over a 15-year span which commenced about 45 years ago. While the fill was not compacted during placement, it is considered a reasonably stable foundation as it has remained in place since the original construction. A geotechnical report was prepared in 2001, during the Master Plan phase of this project. In that study, two land borings and two off-shore borings were made on the eastern portion of the project site. The field exploration confirmed that the project site is generally underlain by coarse to medium dense coralline deposits embedded with lagoonal and beach sand deposits. Additional borings (two on-shore, two off-shore) were done in November 2007 to verify the soil conditions in the immediate project area. The 2007 analysis confirmed the findings of the 2001 geotechnical study. Percolation rate testing performed for this project in the 2007 study indicated that the soil on-site has a percolation rate of approximately 1 minute per inch. A high percolation rate is often found in the west Hawai'i area due to the coarseness of the soil grains and the presence of underlying fractured lava.

Impacts and Mitigative Measures

No short-term or long-term adverse impacts to the soils are anticipated in the project vicinity. Therefore, no mitigative measures are required. Soil erosion would be prevented during the construction phase through the implementation of BMPs as part of an NPDES permit. BMPs proposed for this current project are outlined in the *Kawaihae Harbor, South Basin Roadway and Water System Improvements-Erosion Control* Report (Appendix C). Mitigation measures and drainage are further discussed in Section 3.6. Excavated soil in trenches up to four feet in depth will be either utilized as general fill for the buried water lines or disposed of in conformance with current Federal, State, and County regulations. Long-term soil erosion is not anticipated as a result of this project (M&E Pacific, Inc. 2008).

3.5 WATER RESOURCES

According to the EPA's Sole Source Aquifer Designations, there are no sole source aquifers on the Island of Hawaii (EPA 2000). The project area lies within the Mahukona aquifer system, which has a sustainable yield of approximately 17 million gallons per day (mgd). Mahukona's sustainable yield represents only 11 percent of the Kohala Aquifer's total sustainable yield. Mahukona's low yield is attributed to the low amount of precipitation in the area. Figures provided in the 2005 *County of Hawai'i General Plan* indicate that the average consumption of the South Kohala District is 3.9 mgd.

The County of Hawaii Department of Water Supply (DWS) Waimea and Lalamilo systems supply water to the South Kohala District (including the project site). The six wells of the Lalamilo system service the area from Kawaihae to Mauna Lani, with an average daily consumption of 3 mgd (County of Hawaii 2005a). An existing 12-inch DWS water main runs along Akoni Pule Highway to the north of this project site. A 2-inch water line taps off the water main near the Makeahua Gulch, where it is metered by a 2-inch DWS water meter and adjacent backflow preventer. The 2-inch water line runs from the highway and towards the existing SBH facilities, partially overland and partially buried, then taps off into a 1-inch service water line at a DLNR-owned and maintained water meter and backflow preventer at the east end of the SBH. The proposed water lines will connect with the existing County waterline along Akoni Pule Highway.

Impacts and Mitigation Measures

Based on water demand estimates completed in 2008, the maximum daily demand at the new SBH facilities of approximately 0.0003 mgd, which is small compared to the overall demand in the area. This anticipated use translates to approximately 2,685 gallons per day. During the Phase I design in 2008, a response letter from the County of Hawaii DWS dated May 2, 2008 confirmed the presence of an existing backflow assembly connected to the meter; therefore, installing a new backflow prevention device will not be necessary. For Phase II, a new 4 inch domestic waterline and 8 inch fire line is proposed. Both waterlines will connect into the existing 12 inch waterline along Akoni Pule Highway near the South Gate.

The 2008 Final EA Phase I (Appendix F) further notes that "the proposed facility is not anticipated to adversely affect the water supply or demand of other County water customers in the Kawaihae area."

According to preliminary findings and to be further analyzed in the Engineering Report (Appendix B), the full build out of this project will comply with standards codified in the *Water System Standards Design Criteria Manual.* This document also calls for the fire flow (FF) at the site to include 2,000 gallons per minute for a two-hour duration. Waterlines are being designed to meet potable water demand for the approved facilities and sized to meet required FF quantity and duration.

As to water resources and other users in the larger region, the Department of Hawaiian Home Lands (DHHL) 2010 *Kawaihae Regional Plan* (for its properties in the area), notes that:

> *"Although Kawaihae's existing water demand is met through County and private wells, the proposed Kawaihae Plan will rapidly increase demand. Based on engineering consultant's estimates, water demand for all four phases of development will require approximately 2.4 million gallons per day (MGD). Currently, DHHL and its consultants are assessing a variety of options such as developing partnerships with other regional stakeholders in the development of additional water."*

While the build-out of DHHL's Kawaihae Regional Plan may increase demand on current water supplies in the area, those impacts will be analyzed at the time when the DHHL develops its Kawaihae lands.

3.6 KAWAIHAE WATER QUALITY AND DRAINAGE

Water conditions, water quality, and water standards are discussed in the 2008 Final EA Phase I (Appendix F). The Engineering Report (Appendix B) will describe existing conditions at the site noting that runoff sheet flows from north-northeast portions of the project area down toward the shoreline.

Impacts and Mitigation Measures

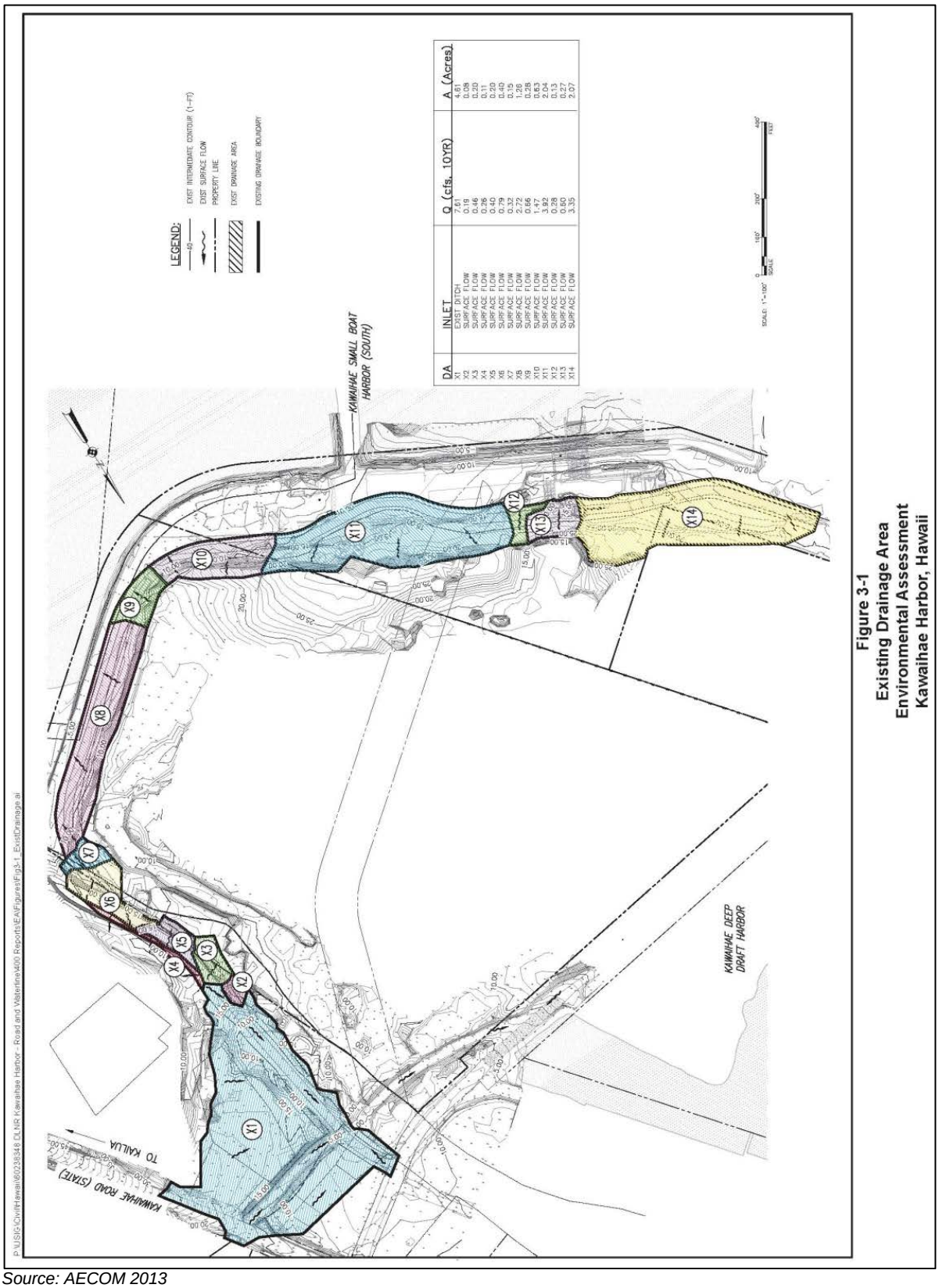
As the project site exceeds 1 acre, issuance of a NPDES Permit and SSCBMP Plan for Storm Water Discharge during Construction Activities, is required from the DOH as noted in a pre-consultation letter response from DOH dated August 23, 2013 (Appendix D). This letter further recommends that the USACE be contacted to inquire about the need for a Section 401 permit pursuant to the federal Clean Water Act, if the project would result in any potential discharge into navigable waters. This project will not result in any discharge into navigable waters. There will only be hydrotesting associated with the excavations for the water lines and therefore, a USACE permit is not required. This has been confirmed via communications with the local office of the USACE. (Appendix E).

The proposed drainage system will utilize a series of 6-foot diameter drywells to accommodate the proposed runoff. The proposed runoff will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5-foot wide vegetated earthen swales that will convey drainage longitudinally to the 6-foot diameter drywells. This natural filtration is anticipated to remove suspended solids and debris in the runoff. The existing drainage flow under current conditions is approximately 23.03 cubic foot per second (cfs) and the proposed flow is about 27.91 cfs for a 10-year, 1-hour flow. The flows were approximated for 12.42 acres, far exceeding the current project acreage.

Low impact development design methods will be incorporated into the design (i.e., vegetated earthen swales and drywells) where appropriate to help filter pollutants out from the runoff. The existing overall drainage patterns will not be significantly impacted.

Figure 3-1 shows the existing drainage areas and Figure 3-2 presents the proposed drainage areas.

Figure 3-1: Existing Drainage Areas



Source: AECOM 2013

Figure 3-2: Proposed Drainage Areas

Source: AECOM 2013

3.7 NATURAL HAZARDS

Natural hazards in Hawaii include floods/tsunami, hurricanes, volcanoes, and earthquakes. Existing susceptibility to these natural hazards and the potential intensification of these hazards from the proposed project are described as follows.

3.7.1 Floods/Tsunami

As discussed in a pre-consultation letter response from the County of Hawaii Department of Public Works (DPW) dated August 22, 2013 (Appendix D), the project site is located in Zones VE, AE, and X, as determined by the Federal Emergency Management Agency Flood Insurance Rate Maps (FIRM) (FEMA 2004). Figure 3-3 shows the FIRM areas.

- Zone VE (along the shoreline) regions are special flood hazard areas that correspond to the one-hundred year coastal floodplains extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. Zone VE areas are subject to high velocity waters, including coastal and tidal inundation or tsunamis. Whole-foot base flood elevations derived from the detailed hydraulic analyses have been determined at selected intervals within this zone.
- Zone AE (closer to the SBH facilities and at the eastern end of the project area) regions are special flood hazard areas that correspond to the one-hundred-year floodplains. Whole-foot base flood elevations derived from the detailed hydraulic analyses have been determined at selected intervals within this zone.
- Zone X (inland of zone AE) regions are other flood hazard areas of minimal flood hazard corresponding to areas outside of the five-hundred-year floodplain. Base flood elevations or depths have not been determined for Zone X areas.

In addition to the FIRM definitions above, Chapter 27 of the Hawaii County Code further defines types of flood zones. That chapter includes the following definitions for flood zone properties in Hawaii County.

- “Zone AE” is the special flood hazard area that corresponds to the one hundred-year floodplains that are determined in the Flood Insurance Study by detailed methods. Whole-foot base flood elevations derived from the detailed hydraulic analyses have been determined at selected intervals within this zone.
- “Zone AH” is the special flood hazard area that corresponds to the areas of one-hundred-year shallow flooding (usually areas of ponding) where average depths are between one and three feet. Whole-foot base flood elevations derived from the detailed hydraulic analyses have been determined at selected intervals within this zone.
- “Zone AO” is the special flood hazard area that corresponds to the areas of one-hundred-year shallow flooding (usually sheet flow on sloping terrain) where average depths are between one and three feet. Average whole-foot depths derived from the detailed hydraulic analyses have been determined within this zone.
- “Zone D” corresponds to unstudied areas where flood hazards are undetermined, but possible.
- “Zone V” is the special flood hazard area that corresponds to the one hundred-year coastal floodplains extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. It is an area subject to high velocity waters, including coastal and tidal inundation or tsunamis. Base flood elevations have not been determined for areas designated as Zone V.

- "Zone VE" is the special flood hazard area that corresponds to the one hundred-year coastal floodplains extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. It is an area subject to high velocity waters, including coastal and tidal inundation or tsunamis. Whole-foot base flood elevations derived from the detailed hydraulic analyses have been determined at selected intervals within this zone.
- "Zone X (shaded)" are areas of moderate flood hazard corresponding to areas of the five-hundred year floodplain, areas of one-hundred-year flooding where average depths are less than one foot, areas of one-hundred-year flooding where the contributing drainage area is less than one square mile, and areas protected from the one-hundred-year flood by levees.
- "Zone X (unshaded)" are areas of minimal flood hazard corresponding to areas outside of the five hundred-year floodplain. Base flood elevations or depths have not been determined for Zone X.

Impacts and Mitigation Measures

As stated in the approved 1985 Kawaihae Harbor EIS, the existing revetted mole and breakwaters may "lessen the impact of tsunami wave action." While complete mitigation of potential flooding and tsunami events on the proposed facilities is not feasible within the current methods of design and construction, care and consideration will be applied to the design of the facility to minimize property damage and to protect public safety. The proposed improvements will not worsen the effects of storm or tsunami events within the harbor area. Due to the nature and purpose of the proposed facilities, there are no practicable alternatives to building within this flood zone The pre-consultation letter response from DPW dated August 22, 2013 (Appendix E) stipulates that "Any new construction or ground alterations within the above zones will be subject to requirements of Chapter 27 – Flood Plain Management of the Hawaii County Code."

Hawaii County Code Chapter 27 stipulates that if the design of the proposed improvements does not or cannot comply with specific development criteria as noted in that chapter, a flood zone variance may be granted under provisions of Section 27-27 and shall be approved by the Director of Public Works for the County of Hawaii. As appropriate, a flood zone variance will be pursued and approved by the Director of Public Works, as part of the permitting process. In addition, new water systems will be engineered to minimize infiltration of flood waters into the system in compliance with Section 27-19 of the Hawaii County Code.

Figure 3-3: FIRM Areas

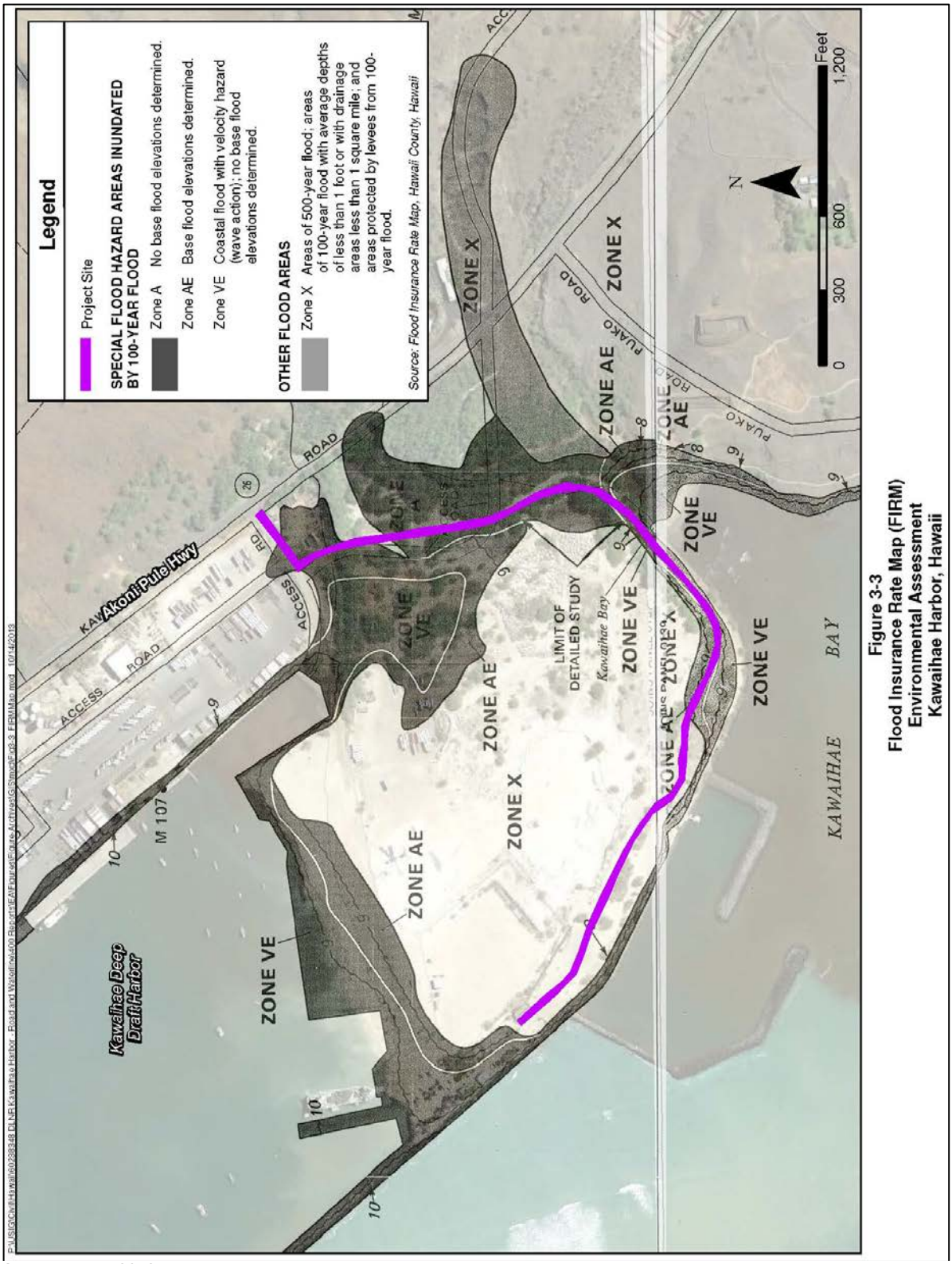


Figure 3-3
Flood Insurance Rate Map (FIRM)
Environmental Assessment
Kawaihae Harbor, Hawaii

Source: FEMA 2013

3.7.2 Hurricanes and Strong Winds

Kawaihae Bay is generally sheltered from the direct effect of the tradewinds by the presence of the Mauna Kea, Hualalai, and the Kohala mountains. Winds in the project area are frequently light and variable. However, the harbor is also subject to strong, unpredictable winds from the west side of these same mountains. These “Waimea winds” occur intermittently, can last from less than an hour up to 12 hours, and are sometimes very strong. Winds of up to 50 knots have been observed by local boaters. Along with the hazardous effects of strong winds, Hawaii is also subject to the threat of approaching tropical storms and hurricanes.

Impacts and Mitigation Measures

The proposed road and water line project may suffer damage during a large hurricane or wind event. This could include damage to ground infrastructure from flying debris. Due to the nature and purpose of the proposed facilities, there are no practicable alternative locations for these facilities to avoid potential impacts from wind and hurricane events. Therefore, no mitigation for potential damage from a hurricane or catastrophic wind event is currently being proposed. However, the proposed water line and road project will comply with all applicable County, State, and Federal building design codes. As noted in Section 3.7.1, any new construction or ground alterations within the above zones will be subject to requirements of the Hawaii County Code Chapter 27, *Flood Plain Management*. In addition, new water systems will be engineered to minimize infiltration of flood waters into the system (County of Hawaii 2005b).

3.7.3 Earthquakes and Volcanic Activity

The entire Island of Hawaii is designated as Seismic Zone 4, based on the United Building Code’s seismic zone criteria that ranges from 0 to 4 (highest risk). Earthquakes in Hawaii typically result from magmatic migration underground. As there are four volcanoes currently classified as “active,” future earthquakes associated with underground lava movements are expected in the project area. There have been 23 large earthquakes with a magnitude of 6.0 or greater recorded since 1868 as noted in *Atlas of Hawaii, Third Edition* (Juvik 1998). The most recent significant earthquake (6.7 magnitude), with resultant minor damage to Kawaihae Harbor, occurred on October 15, 2006 (SSFM, Inc. 2009). Damage included cracks to Pier 1, settlement of soils, a toe rock dislodged and damage to harbor warehouses. Damage to the harbor has since been repaired.

There are four active volcanoes on the Island of Hawaii. Kilauea is an active volcano that has been continuously erupting since January 1983. Mauna Loa is an active volcano that last erupted in 1984, and is believed to be building for a new eruption within the next few years. The Loihi volcano last erupted in 1996, and Hualalai last erupted in 1801, however is expected to erupt again within the next 100 years. The project area is located to the north of the Hualalai summit and is bordering lava hazard zones 8 and 9 on an ascending scale of risk from 9 to 1, as determined by the U.S. Geological Survey. Zone 8 areas have not been affected by lava flows in the last 10,000 years and Zone 9 areas have not had an eruption in the area for the past 60,000 years (M&E Pacific 2008).

Impacts and Mitigation Measures

The risk of lava hazards at this site is very low; therefore, no mitigative measures are required. The proposed water line and road project will comply with all applicable County, State, and Federal building development and seismic codes.

3.7.4 Global Warming/Sea-Level Rise

As part of the HDOT’s *2011 Commercial Harbors 2035 Master Plan Update*, Professor Chip Fletcher of the University of Hawaii School of Ocean and Earth Science and Technology, was hired to study the amount of land area vulnerable to marine inundation at high tide due to sea level rise at both Hilo and Kawaihae Harbors.

As noted in the 2011 Commercial Harbors 2035 Master Plan Update:

> *The Fletcher report summarized global mean sea level rise due to decreased global ice volume and warming of the ocean. While demonstrating that there are local variations, the report projects that based on the weight of scientific evidence, a one (1) meter rise by the end of the 21st century is an approximate metric for planning purposes. Island subsidence will occur in subtle 1/8 inch to 1/2 inch (3-11.5 mm), but increasingly accelerated, annual increases. At Kawaihae, a rise of 11.5 inches (30 cm) will inundate a minimum of 3 acres, and 23.5 inches (60 cm) of rise will inundate at least 5.6 acres. A rise of 4.5 feet, (1.4 m), a standard used by the state of California as a planning target for sea level rise by the end of the century, will flood at least 19.2 acres at Kawaihae Harbor at high tide.*

Impacts and Mitigation Measures

Due to the nature and purpose of the proposed facilities associated with this project, there are no practicable alternative to the proposed roadway and water lines in this location with its vulnerability to sea level rise. The County of Hawaii currently does not have regulations applicable to development threatened by sea level rise. However, as noted in Section 3.7.1, any new construction or ground alterations within the above zones will be subject to requirements of the Hawaii County Code Chapter 27, *Flood Plain Management* (County of Hawaii 2005b). In addition, “new water systems will be engineered to minimize infiltration of flood waters into the system.

3.8 FLORA AND FAUNA

As described in the 2008 Final EA Phase I, the vegetation at the SBH project site and surrounding area generally consists of introduced plants and a few common native grasses (kiawe, piligrass, and fingergrass), weeds, hardy shrubs such as the haole koa, ilima, and kolu; and trees (i.e., kiawe, monkeypod, beach heliotrope, milo, kou, and coconut trees).

Introduced birds, feral cats, mongooses, and skinks have also been located within the project area. Research performed for the 1985 Kawaihae Harbor EIS indicated that birds found in the area include the Ruddy Turnstone, California Plover, Wandering Tattler, Japanese White-eye, House Sparrow, American Gold Plover, Cardinal, House Finch, Warbling, Silverbill, Spotted Dove, and Barred Dove. The project area is not a critical habitat of these birds as they do not nest or breed there.

There are no rare, endangered, or threatened species that use the project area as a critical habitat. Green sea turtles feed in the harbor area, though they do not nest in the area because access to land areas is difficult.

Impacts and Mitigation Measures

The proposed improvements are not expected to impact the endangered humpback whale and threatened green sea turtle populations or their habitats. Construction will be confined to shore-side areas that are already developed. The green sea turtle does not nest within the SBH basin; therefore, their critical habitat would not be affected by this project.

The proposed project is not anticipated to affect the population or the critical habitats of the threatened Newell's shearwater or the endangered Hawaiian petrel. These pelagic birds typically nest and breed in higher elevations than that of the project site, although they may feed or forage in the general area. The Newell’s shearwater prefers to nest within burrows located under ferns on forested mountain slopes, while the Hawaiian petrel prefers to nest in burrows among rocky outcrops, under cinder cones, or under old lichen-covered lava. The project site lacks both of these habitat characteristics. Both listed birds mostly feed in open water areas, with the Hawaiian petrel feeding mainly at night (M&E Pacific 2008).

3.9 PUBLIC SERVICES/INFRASTRUCTURE

Vehicular entrance to the project site is through a secured entry gate to the commercial port facilities off Kawaihae Road. There are currently no paved roads leading to or within the project site, outside of the commercial port facilities. An unpaved white coral road along the shoreline currently provides access to the SBH area. This road will be improved as part of this project. Existing telephone ducts, power lines and a 12-inch water line are located along Akoni Pule Highway in the vicinity of the SBH. The Kawaihae Harbor District office is currently being relocated closer to the entry of the SBH access road. In the future, the HDOT-Harbors Division has plans to locate new gates near the SBH access road. These projects will be considered when installing the new water lines.

Impacts and Mitigation Measures

The proposed project will include asphalt upgrade and striping improvement to the previously discussed non-paved access road leading to the SBH. As noted, water service for the proposed project facilities will be provided via new 4 and 8 inch waterlines. Location of any existing utility infrastructure, and the possible need for its relocation, will be confirmed with appropriate utility agencies prior to the commencement of any work at the project site. Aside from a possible relocation of a Hawaiian Electric Company power line, disruption of existing public utilities is not anticipated in response to construction of the proposed project and therefore no mitigations are being proposed.

3.10 NOISE

No residences are in close proximity of the SBH project area. Some ambient noise level in the area is generated from commercial harbor/shipping activities at the DDH and from vehicular movements along Akoni Pule Highway. Ambient noise within the immediate project area is generally low, with the main noise sources being boat and vehicle traffic. Additional background noise is provided from natural sources, such as the wind and the breaking surf (M&E Pacific 2008).

During construction, noise levels will increase from the operation of heavy construction equipment. Typical heavy construction equipment may include but may not be limited to backhoes, front loaders, concrete trucks, flatbed trucks, etc. Typical noise levels generated by this equipment will range from 80-90 decibels. These will be short-term and minor.

Impacts and Mitigation Measures

Noise generated by construction activities will comply with noise provisions established by HRS §11-46-1 and no further measures are required to mitigate short-term impacts. Construction activities are short-term and localized in nature; therefore, no long-term or cumulative impacts are anticipated, and no mitigation measures are proposed.

3.11 TRAFFIC

Due to federal Department of Homeland Security requirement initiated in 2004, all people visiting the commercial harbor must either be trained in Maritime Security clearance, which requires a Transportation Workers Identification Credential (TWIC) card, or must be properly escorted. Visitors to the SBH do not require a TWIC card but must show a government issued I.D. The main gate is open during the day, and the south gate is currently open on Fridays for trucking traffic. Traffic near the project area is primarily made up of vehicles entering and exiting the Pua Ka Ilima ‘O Kawaihae Cultural Surf Park or U.S. Army Kawaihae Military Reservation, both to the north of the SBH.

While there are typically few cars in the project area, traffic is known to increase during good surfing conditions. At Kawaihae Harbor, Akoni Pule Highway is a narrow roadway with limited capacity in terms of turning lanes into and out from the harbor. Truck traffic is slow moving and can create congestion issues to neighboring residents.

In addition, Akoni Pule Highway runs past a National Park and the Puukohola Heiau. Traffic, especially truck traffic, causes vibration and road conflict issues for the park (HDOT 2011).

Impacts and Mitigation Measures

There will be minimal impacts to traffic along Akoni Pule Highway during the construction of the project. Increased traffic will occur from the movement of construction vehicles and crews to and from the site. This traffic is anticipated to have little effect on the overall flow of traffic in the area, as all of the construction work will take place on the site away from the main roadway and commercial port facilities. The contractor will be instructed to coordinate the construction equipment mobilization/demobilization with DLNR and the appropriate representatives from Matson, Young Brothers, HDOT-Harbors, the U.S. Army, and other potentially affected parties prior to the start of construction. For visitors and recreational users needing access to the SBH, temporary access will be provided along the existing DDH road that traverses past the Army facility and the surf park. This temporary access route will not limit or slow access to any SBH facilities during the construction period. The traffic to the Pua Ka Ilima ‘O Kawaihae Cultural Surf Park, U.S. Army facilities, or other facilities near the DDH will not be affected during or after construction because these are reached by a different route. Access to the National Park and heiau will not be impacted. In addition, no work will be done along or adjacent to Akoni Pule Highway and no road closures are expected; therefore, no mitigations are currently proposed.

3.12 VISUAL RESOURCES

The project site is located in a generally undeveloped portion of the SBH and is contiguous to a commercial, industrial port facility. The site was previously graded during previous improvement projects and the existing breakwater construction to install a revetment and unpaved access road along the shoreline. The immediate area around the project site is populated by various medium-sized trees and scrub brush. The only other land-based structures in or near the project area include a fenced area for boat and equipment storage, a small elevated lookout with handrails and retaining wall, a short wooden ramp for access to a small floating dock. These structures were a part of the YMCA Center, which is being demolished as part of the SBH project approvals.

Impacts and Mitigation Measures

While scraping and trenching will be visible from some public right-of-ways during the construction phase, these visual impacts will be temporary and not significant. Disruptions will be minor and short term and will result primarily from activities associated with the installation of the pavement for the access road and trenching for the water lines. The proposed project will not significantly alter visual resources in the area, post-construction. The project involves only horizontal construction with no structures impacting view corridors from public rights-of-ways, the National Park areas, heiau or public beaches. Therefore, no visual impact mitigation measures are proposed.

3.13 CULTURAL AND HISTORICAL RESOURCES

The Puukohola Heiau National Historic Park (Site Number 10-05-4139) is located near Mahukona Gulch to the south of the project site. The Puukohola Heiau National Historic Park is a 77-acre area that includes several historic landmarks, including the submerged Haleokapuni Heiau (shark heiau), the Mailekini Heiau, the Puukohola Heiau, and the James Young Homestead historic settlement. The proposed project site is located within an area that has previously been altered and disturbed and is located completely within the harbor basin protected by the East and West breakwaters.

Figure 3-4 presents the locations of the multiple heiau, relative to the project site.

Figure 3-4: Map, Cultural and Historical Resources

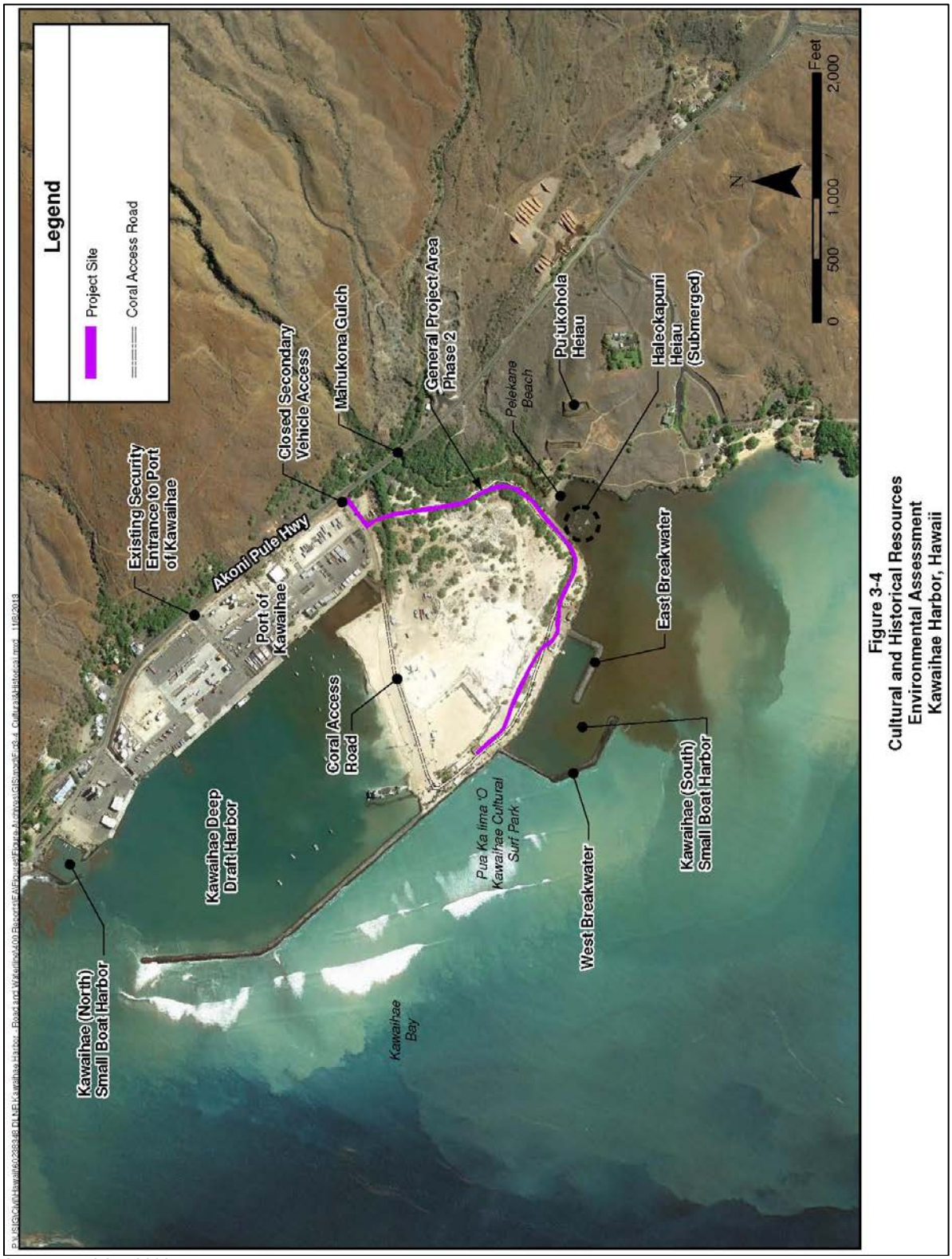


Figure 3-4
Cultural and Historical Resources
Environmental Assessment
Kawaihae Harbor, Hawaii

Source: AECOM 2008

Impacts and Mitigation Measures

A response letter regarding the proposed project was received from DLNR-Historic Preservation Division on September 13, 2013. That agency recommended that an Archaeological Inventory Survey (AIS) be completed for this site. This recommendation was based on a concern that the fill process may have covered over historic properties and burial sites located at the former Puakailima settlement. DOBOR, as proposing agency, has agreed to complete an AIS as part of this project. The final AIS document, along with recommendations and mitigation measures, will be included as part of the Final EA and FONSI.

According to the State Historic Preservation Division's (SHPD) Hawaii National Register of Historic Places, and as determined by the 1994 and 2008 EAs and 1985 Kawaihae Harbor EIS documents, no historical or archeological sites are located within the project area. In addition, as noted in the *2011 Commercial Harbors 2035 Master Plan Update*:

> *Consideration has been given to the nearby Puʻukoholā Heiau. This majestic, sacred, and massive lava rock temple was built by hand in 1790 (or 1791). It has been carefully restored and preserved in recent years and is situated prominently above the harbor. There are many other historic places at the site, including other heiau features and the homestead of John Young, a close advisor to King Kamehameha I. The proposed harbor uses at the Coral Flats have been situated to avoid visual, noise, or other impacts to the sacred lands at Puʻukoholā Heiau, and the National Park Service has been regularly consulted during the preparation of the 2035 Master Plan.*

A Cultural Impact Assessment (CIA) for the harbor area was recently completed as part of a draft EA being completed for harbor infrastructure improvements (HDOT 2013). This document's study area includes the current project area as part of its analysis. (Appendix G). The CIA document notes:

> *Kawaihae Harbor "is primarily a coral stockpile formed from dredge tailings after the current harbor was created on the site of a coral reef" (Towill 2001: 4-12) and beach from the early 1950s to 1960s. Any historical or archaeological sites which may have existed within the boundary of the harbor during the period of construction would have been buried.*

The only excavation proposed for the current project is trenching associated with the installation of the water lines. Regardless, an AIS will be completed and submitted to SHPD in conjunction with this EA process. SHPD will review and approve the AIS prior to issuance of any permits associated with this project. The proposed project with any AIS recommendations and mitigations will ensure there is no negative impact to the site as a historical and cultural resource, nor will it impact the historical or cultural integrity of the surrounding areas. No significant short-term or long-term impacts are anticipated.

As a standard mitigation measure for all construction sites, if a contractor uncovers any cultural resources during his construction activities, the contractor will be required to stop work immediately and notify SHPD. SHPD will then determine the appropriate treatment of these new finds and any subsequent actions.

3.14 RECREATIONAL RESOURCES

The existing SBH is currently a popular area for some light-draft boaters and local shore fishermen. The project site abuts the existing revetted shoreline and is located between the Pua Ka Ilima O Kawaihae Cultural Surf Park (to the northwest) and Pelekane Beach (to the southeast). Some surfing activities occur outside of the harbor breakwater areas. The Pua Ka Ilima O Kawaihae Cultural Surf Park is, near the DDH breakwater, and along the currently unpaved access road to the SBH. Pelekane Beach fronts the Puukohola Heiau. Samuel M. Spencer Beach Park is located to the south of Pelekane Beach. There are swimming and other recreational uses at the beach park, including diving, canoeing, and surfing.

Impacts and Mitigation Measures

The proposed project is in accordance with the intended use and development of the SBH as outlined in the accepted 2003 Kawaihae SBH Master Plan. Current fishing and boating activities at the harbor will be supported and encouraged by the proposed improvements, while making the harbor more accessible to a greater portion of the Kawaihae boating and recreation community. Access to recreational facilities such as surf parks, beaches, diving and fishing spots will be enhanced with implementation of this project through the provision of access road upgrades. No short-term or long-term negative impacts on the existing recreational facilities are anticipated; therefore; no further mitigation measures are proposed.

4.0 RELATIONSHIP TO LAND USE POLICIES AND CONTROLS

The land use designations for the project area are as follows:

- State Land Use Urban & Conservation (Resource Subzone)
- Coastal Zone Management (CZM) SMA
- General Plan-LUPAG ind, mdu, ope
- County Zoning (MG-1a), (O) and (RM 1.5)

4.1 STATE PLAN AND KAWAIHAE REGIONAL PLAN (DHHL)

HRS Chapter 226 provides for long-range planning for the State of Hawaii. The portions of the *State Plan* and its *State Functional Plans*, which apply to the proposed Kawaihae SBH project site are outlined and discussed in the 2008 Final EA Phase I. The objectives of the *State Plan* as it relates to this project is to maintain and improve Hawaii's water quality and to accommodate Hawaii's people through coordination of facility systems and capital improvement priorities in agreement with state and county plans (HRS 226). The proposed actions are consistent with these objectives.

DHHL has produced twenty regional plans for homestead lands throughout the state. These plans guide land use, identify issues of concern, and prioritize development projects for implementation on DHHL lands. The 2010 *Kawaihae Regional Plan* was developed for DHHL lands mauka and contiguous to Kawaihae harbor. The 2010 *Kawaihae Regional Plan* notes:

> *homestead lands along Kawaihae Road and Akoni Pule Highway adjacent to the Kawaihae Harbor are currently being used by a variety of different commercial and industrial tenants. Current tenants include: fish market, restaurants, and other light industrial and commercial operations*
>
> and
>
> *The 2002 Hawaii Island Plan (DHHL) also proposed to increase the amount of land available for commercial and industrial businesses mauka of the existing development.*

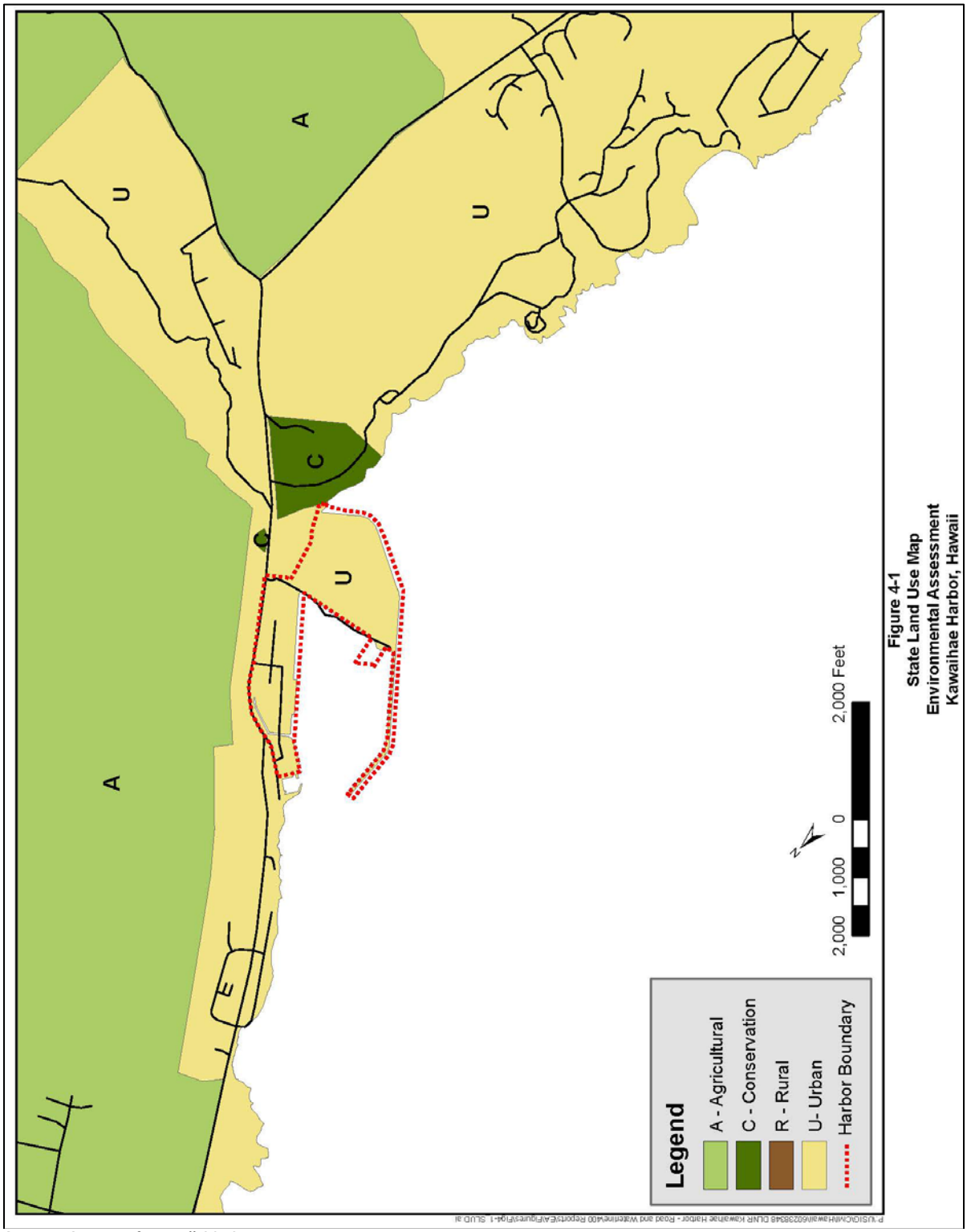
4.2 STATE LAND USE DESIGNATION

The project site is located within the Urban District, as classified by the State Land Use map (Figure 4-1). A pre-consultation letter response from DLNR-Office of Conservation and Coastal Lands (OCCL) dated August 26, 2013 (Appendix D) acknowledges such and confirms that the area is therefore not regulated by the OCCL office. With an "Urban" designation, this project is under the jurisdiction of the County of Hawaii, and is subject to County zoning regulations as discussed in Sections 4.3 and 4.4.

4.3 HAWAII COUNTY GENERAL PLAN-LUPAG AND SOUTH KOHALA COMMUNITY PLAN

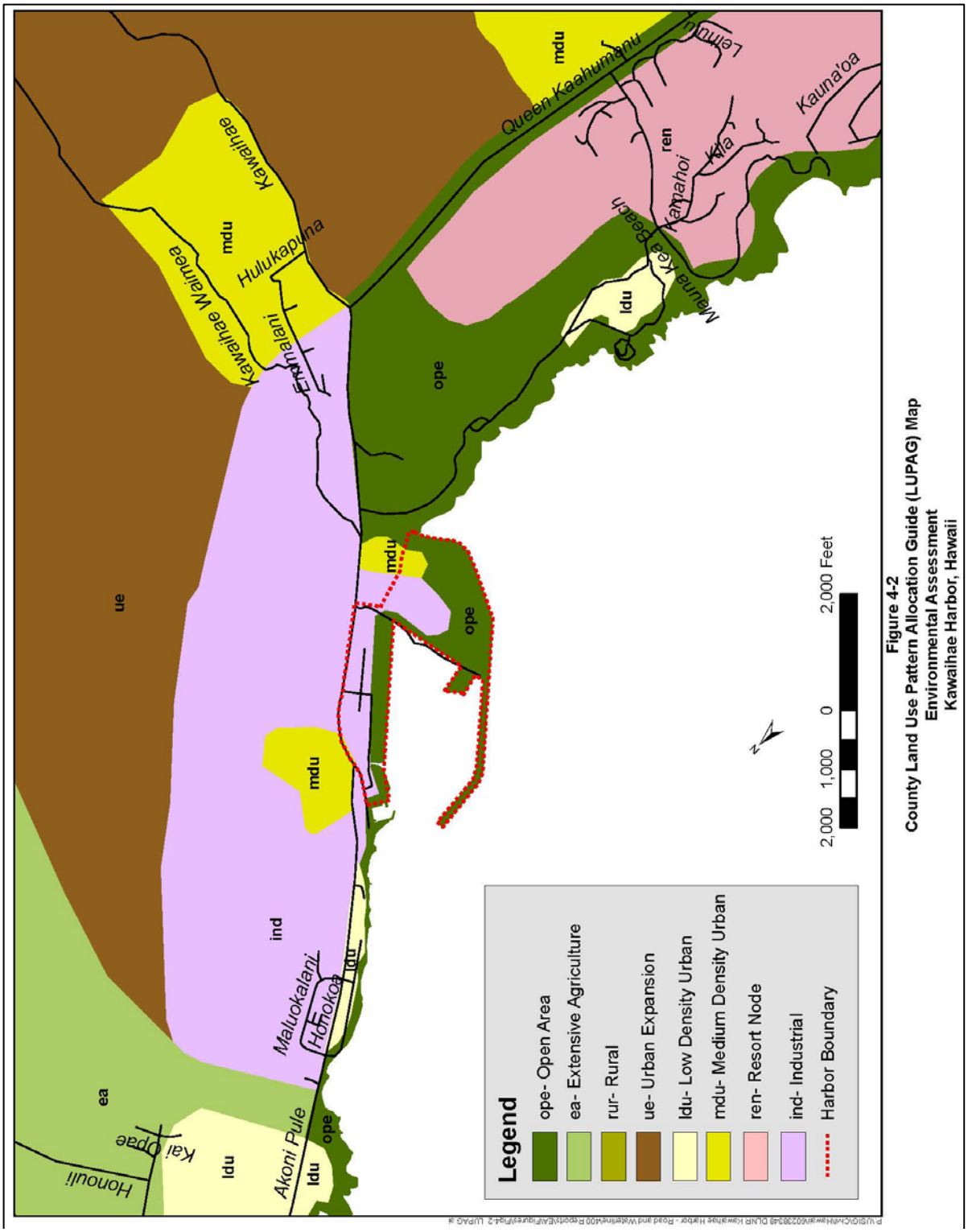
As discussed in the 2008 Final EA Phase I, the SBH and its related facilities including the current project are consistent with criteria and policies of the 2005 *County of Hawai'i General Plan* and the LUPAG (Figure 4-2). In addition, the SBH development at this site and its associated improvements under this current project are consistent with both the 2011 Commercial Harbors 2035 Master Plan Update and the 2003 Kawaihae SBH Master Plan. Construction of these SBH infrastructure improvements will not affect the land use or development of agriculture in the area.

Figure 4-1: State Land Use Map



Source: County of Hawaii 2013

Figure 4-2: County LUPAG Map



Source: County of Hawaii 2013

This project at the SBH is consistent with the South Kohala Community Development Plan (CDP). Specifically, the SBH project and its improvements are discussed in *Chapter 6: Kawaihae Community Plan* of the CDP. The current Phase II improvements are consistent with the Kawaihae Conceptual Plan and Policies of the CDP (County of Hawaii 2008).

4.4 COUNTY OF HAWAII ZONING

The project site is located within the County of Hawaii General Industrial - 1 acre (MG-1a), Open (O) and Multiple Family Residential – 1.5 acres (RM-1.5) zoning districts (Figure 4-3). This current project involves only the addition of accessory uses at the SBH and extension of utilities (water lines). This current project does not propose a change or intensification of the currently approved land uses. Under provisions of Chapter 25-4-11 of the Hawaii County Code, public uses, structures and buildings are permitted uses in any zoning district. Therefore, a use permit is not required for this project.

4.5 COASTAL ZONE MANAGEMENT

A response letter regarding this project was received on September 12, 2013, from the State of Hawaii Office of Planning. That agency noted that this project is within the CZM area and requested that compliance with provisions of HRS 205A-2 be discussed in this EA if a USACE permit is required. This project does not trigger a USACE permit or any other federal permits. Therefore, a discussion of compliance with CZM compliance is not required.

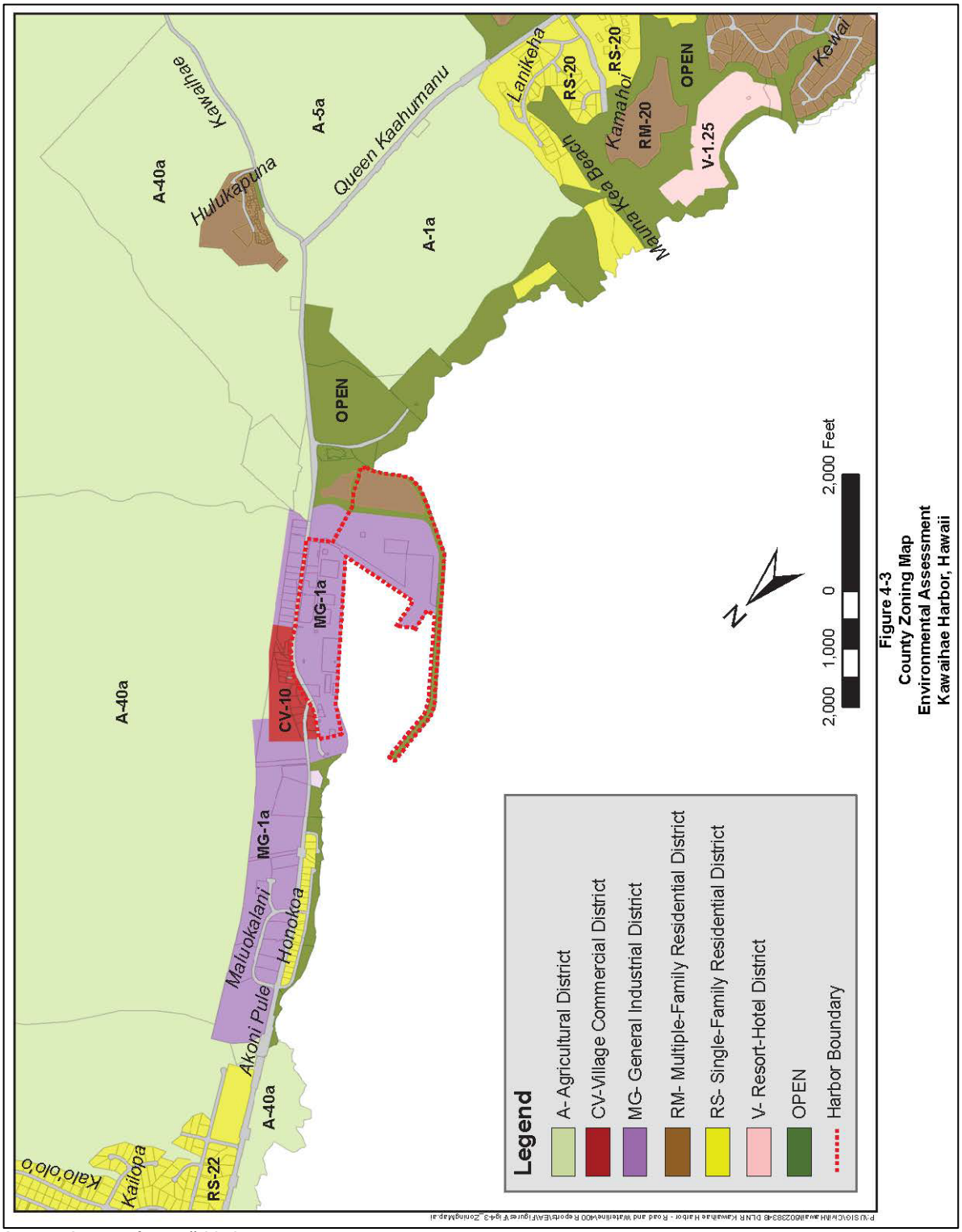
4.6 SPECIAL MANAGEMENT AREA

All development within the SMA is administered through the County of Hawaii Department of Planning pursuant to the objectives and policies and the SMA guidelines as provided by HRS Chapter 205A. The proposed project is located within the SMA as shown on Figure 4-4; however, pursuant to HRS 171-6(19), the DLNR-DOBOR is authorized to, plan, design, construct, operate, and maintain any lands or facilities under the jurisdiction of the DLNR-DOBOR without the need to obtain a SMA minor permit or SMA use permit. Therefore, no SMA permit is required.

4.7 SHORELINE SETBACK AREA

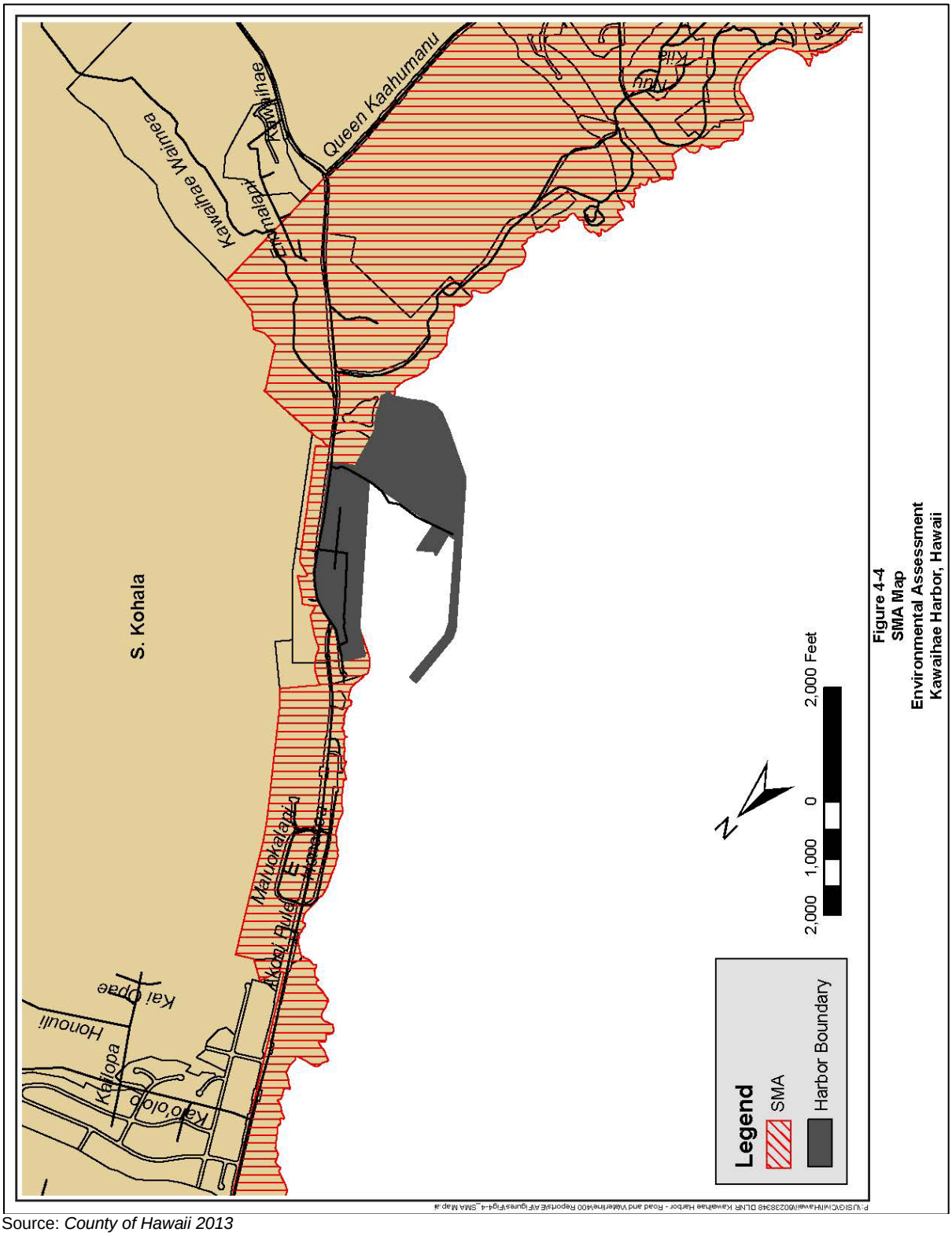
No structures will be proposed within the Shoreline Setback Area (approximately 40 feet from the shoreline), and therefore no Shoreline Setback Variance is needed. The proposed project requires some earthwork including minor clearing and grading activities. The grading work will be done on fill that was previously disturbed during the initial SBH breakwater construction.

Figure 4-3: County Zoning Map



Source: County of Hawaii 2013

Figure 4-4: SMA Map



Source: *County of Hawaii 2013*

5.0 DETERMINATION WITH SUPPORTING FINDINGS AND REASONS

In accordance with HRS Chapter 343, this EA characterizes the technical, social, and environmental issues related to the Kawaihae SBH Phase II project. It identifies potential project impacts to the environment and their significance. The proposed project should not result in any significant impacts to the environment either during the construction phase or once operational; therefore, the State of Hawaii DLNR is anticipating a FONSI.

This determination is based on thirteen (13) significance criteria listed in HAR §11-200-12 of the EIS Rules. The specific criteria used in making this determination are addressed below:

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

   Construction of the proposed facilities will not irrevocably commit to loss or destruction of natural or cultural resources. To date, no cultural resources have been identified within the project site. However, prior to implementation of this project, and per the request of SHPD, an AIS for the project site will be completed. As a standard practice, if previously unknown resources are uncovered during the course of construction, the contractor will stop work immediately and notify the SHPD who will determine the appropriate treatment.

2. *Curtails the range of beneficial uses of the environment:*

   The proposed actions will not curtail the range of beneficial uses of the environment. The proposed actions to enhance infrastructure at the SBH will encourage the intended use of the site consistent with the approved 2003 Kawaihae SBH Master Plan and with the 2011 Commercial Harbors 2035 Master Plan Update.

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 harbor facilities are consistent with the State's goals and objectives as described in the relevant sections of this EA.

4. *Substantially affects the economic or social welfare of the community or state:*

   The proposed actions will not substantially affect social welfare of the community in a negative manner. There will be no road or lane closures during the construction of the facilities. The proposed actions will improve the economic and social welfare of the affected communities by providing a safe, enhanced facility dedicated for light-draft vessel and recreational water-related activities.

5. *Substantially affects public health:*

   The proposed activities will not substantially affect public health in a negative manner. Paving the roadway and providing water service to the SBH will make both commercial activity and light-draft activity safer for all users of the Kawaihae boating community. During construction, environmental pollutants will be mitigated to regulated levels by using appropriate BMPs and construction methods and as part of the issuance of an NPDES permit from DOH.

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

   The SBH facilities will not lead to secondary impacts such as population changes or effects on public facilities beyond those discussed in the 2005 *County of Hawai'i General Plan*. The increased consumption of potable water by the installation of water lines will not result in a significant change to water demand.

7. *Involves a substantial degradation of environmental quality:*

   The proposed project will not degrade the environmental quality of the project site. The existing quality of the project site will remain. The proposed construction will take place

within a defined portion of the project site and will not affect the environmental quality of the area.

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

   Installation of the proposed boating facilities will not have a cumulative effect on the environment. The facilities constructed with this project will not require commitment for larger action but will constitute the culmination of the SBH improvements.

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

   The proposed project will not substantially affect any rare, threatened, or endangered species or its habitat. The project site is not a known critical or nesting habitat for rare, threatened, or endangered species.

10. *Detrimentally affects air or water quality or ambient noise levels:*

    The proposed projects will not substantially degrade environmental quality. Any notable adverse effects on air and water quality and ambient noise levels will be short-term and construction-related only. Air quality and noise levels will not exceed DOH standards. This project will not result in long-term adverse effects. On completion of construction activities, air and water qualities will revert to prior levels. Any increase in ambient noise levels is anticipated to be minor in comparison to the noise levels in the surrounding community, and is not considered significant.

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

    The proposed project is located along an existing revetted shoreline that is located within a designated flood plain and tsunami excavation zone. The proposed action will not detrimentally affect the area in or near the project area; however, the proposed facilities may potentially be damaged should a tsunami or flooding occur. The project site is located in a volcanic hazard zone of 9 (areas with the lowest risk); however, it is in an area that may experience some seismic activity and that may be exposed to hurricanes and strong winds.

    Although damage may occur to the facilities during occasions of severe hurricanes, earthquakes, lava flows, and flooding, no practical mitigation measures are currently available for a project of this nature. The proposed project will comply with all current applicable building codes and regulatory design standards and no features of this project involve the construction of buildings for human habitation.

12. *Substantially affects scenic vistas and view planes identified in county or state plans or studies:*

    Activities associated with the installation of the proposed facilities are not anticipated to change or alter the character of the site, except as intended by the 2003 Kawaihae SBH Master Plan. This project involves horizontal infrastructure development and not vertical construction, resulting in limited impacts to scenic views.

13. *Requires substantial energy consumption:*

    The SBH project facilities will not require energy consumption other than a small amount of energy associated with pumping of potable water through the water system.

6.0 PERMITS AND APPROVALS REQUIRED

State Of Hawaii

- DOH - NPDES Permit (notice of intent [NOI]-C, Other NOIs as required)
- DOT – Highways Division

County Of Hawaii

- Grading/Grubbing Permit
- Flood Zone Variance (if applicable)

7.0 REFERENCES

County of Hawaii. 2005a. *County of Hawaii General Plan*. February.

———. 2005b. Hawai‘i County Code, Chapter 27, *Floodplain Management*. Updated February 2011.

———. 2008. *South Kohala Community Development Plan.* November.

Environmental Protection Agency, United States (EPA). 2000. *Sole Source Aquifer Designations. EPA Region 9*. June.

Federal Emergency Management Agency (FEMA). 2004. *Flood Insurance Rate Map, Hawaii County, Hawaii*.

Fletcher, Chip and M. Barbee. 2009. *Climate Change Analysis for Hilo and Kawaihae Harbors*.

Foote, D.E., Hill, E.L., Nakamura, S., Stephens, F. 1972. *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii, U.S. Department of Agriculture, Soil Conservation Service*.

Department of Hawaiian Home Lands (DHHL) 2010. *Kawaihae Regional Plan*.

Department of Health, State of Hawaii (DOH). 2008a. Hawaii Administrative Rules (HAR), Title 11, Chapter 46: *Community Noise Control.* Honolulu.

———. 2008b. Hawaii Administrative Rules (HAR), Title 11, Chapter 200: *Environmental Impact Statement Rules.* Honolulu.

Department of Transportation, State of Hawaii (HDOT). 1985. *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor*. January.

———. 2011. *Hawaii Island Commercial Harbors 2035 Master Plan Update.*

———. 2013. *Draft Environmental Assessment Improvements to Kawaihae Harbor.*

Hawaii Revised Statutes (HRS). *Coastal Zone Management*. HRS 205A.

———. *Hawaii State Planning Act*. HRS 226.

———. *Environmental Impact Statement.* HRS 343.

Juvik, Sonia. 1998. *Atlas of Hawaii, Third Edition.* University of Hawaii Press.

M&E Pacific, Inc. 2003. *Master Plan for Kawaihae Small Boat Harbor (South)*. December.

———. 2008. *Final Environmental Assessment for Kawaihae Small Boat Harbor (South) Improvements, Phase I*. May.

SSFM, Inc. 2009. *Hawaii Kawaihae Harbor 2006 Earthquake Report*. December 15, 2009. http://www.hawaiiharborsplan.com/docs/MN%20Kawaihae%20Earthquake%20Damage%20Repairs%20Update.pdf.

United States Army Corps of Engineers (USACE). 1994. *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels*. December.

Appendix A
Engineering Plans Dated February 2013

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

ENGINEERING DIVISION
FOR
DIVISION OF BOATING AND OCEAN RECREATION

JOB NO. B13CH73A

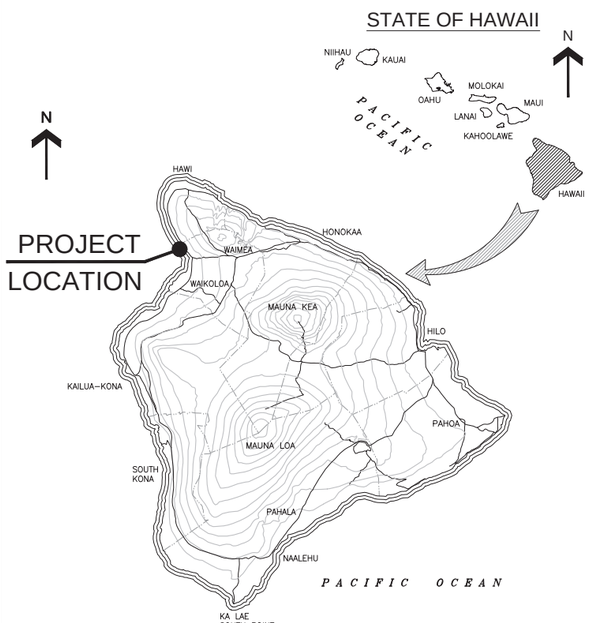
KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS

S. KOHALA, ISLAND OF HAWAII, HAWAII
TMK: (3)6-1-003: Por. 025, 026, 047, 051

Prepared By: AECOM

1001 BISHOP ST
AMERICAN SAVINGS TOWER, SUITE 1600
HONOLULU, HAWAII 96813

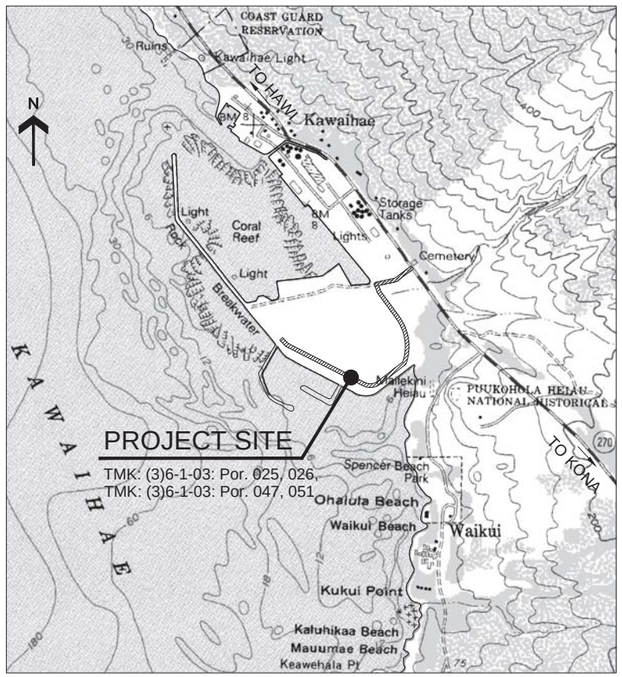
FEBRUARY 2013



ISLAND OF HAWAII

VICINITY MAP

NOT TO SCALE



LOCATION MAP

NOT TO SCALE

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C-2	CONSTRUCTION NOTES-2
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C-4	EROSION CONTROL PLAN 1
C-5	EROSION CONTROL PLAN 2
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C-26	ROAD A TYPICAL SECTION
C-27	TRAFFIC CONTROL PLAN

APPROVED

APPROVED: DATE:

EDWARD R. UNDERWOOD
ADMINISTRATOR
DIVISION OF BOATING AND OCEAN RECREATION
DEPARTMENT OF LAND AND NATURAL RESOURCES

APPROVED: DATE:

CARTY S. CHANG
CHIEF ENGINEER
ENGINEERING DIVISION
DEPARTMENT OF LAND AND NATURAL RESOURCES DATE:

APPROVED:

DIRECTOR, DEPARTMENT OF PUBLIC WORKS
COUNTY OF HAWAII DATE:

APPROVED:

MANAGER, DEPARTMENT OF WATER SUPPLY
COUNTY OF HAWAII

APPROVED:

DIRECTOR, DEPARTMENT OF TRANSPORTATION
COUNTY OF HAWAII

PROJECT NUMBER 60236348

JOB NO. B13CH73A KAWAIHAE HARBOR, SOUTH BASIN ROADWAY AND WATER SYSTEM IMPROVEMENTS

GENERAL NOTES:

1. ALL APPLICABLE CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST REVISION OF THE STATE OF HAWAII DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", DATED 2005 AND THE COUNTY OF HAWAII DEPARTMENT OF PUBLIC WORKS (DPW) "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION," DATED SEPTEMBER 1986 AND "STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION", DATED SEPTEMBER 1984 WHERE APPLICABLE.

2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLAN OR NOT, AND SHALL BE RESPONSIBLE FOR THE REPAIR, RELOCATION OR REPLACEMENT OF SAME IN THE EVENT OF DAMAGES DUE TO HIS CONSTRUCTION PRACTICES, OR INTERFERENCES WITH CONSTRUCTION WORK. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE RESPECTIVE UTILITY COMPANIES AND THE STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES DIVISION OF BOATING AND OCEAN RECREATION (DLNR–DOBOR) AND DEPARTMENT OF TRANSPORTATION, HARBORS DIVISION.

3. VERIFY AND CHECK ALL DIMENSIONS AND DETAILS SHOWN ON THE DRAWINGS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.

4. NO CONTRACTOR SHALL PERFORM ANY CONSTRUCTION OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW INTO EXISTING DRAINAGE SYSTEMS, OR ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS NECESSARY.

5. ALL WORK CALLED FOR ON THE PLANS AND NOT ITEMIZED IN THE PROPOSAL AND ALL WORK NOT CALLED FOR BUT REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER QUALITY AND WATER POLLUTION CONTROL STANDARDS CONTAINED IN HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 54, "WATER QUALITY STANDARDS" AND TITLE 11, CHAPTER 55, "WATER POLLUTION CONTROL". BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED AT ALL TIMES DURING CONSTRUCTION.

7. STOCKPILING OF MATERIAL MAY BE ALLOWED ON THE SITE PENDING ADVANCED COORDINATION AND APPROVAL BY THE ENGINEER OR THE DLNR–DOBOR REPRESENTATIVE.

8. NO TRENCHING SHALL BE LEFT OPEN FOR MORE THAN FIVE (5) WORKING DAYS. CONTRACTOR SHALL PROPERLY BARRICADE ALL OPEN TRENCHES DURING ALL PHASES OF CONSTRUCTION.

9. THE CONTRACTOR SHALL OBSERVE AND COMPLY WITH THE ADMINISTRATIVE RULES OF THE DEPARTMENT OF HEALTH REGARDING NOISE CONTROL FOR HAWAII.

10. THE PROPOSED UTILITY LINE LOCATION SHALL BE LAID OUT IN THE FIELD PRIOR TO THE CONDUCTING OF THE FIELD REVIEW BY THE ENGINEER.

11. FIELD ADJUSTMENTS SHALL BE MADE AS DIRECTED BY THE ENGINEER.

12. ALL EXISTING TREES TO REMAIN SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.

13. PURSUANT TO CHAPTER 6E OF THE HAWAII REVISED STATUTES (HRS), IN THE EVENT ANY ARTIFACTS OR HUMAN REMAINS ARE UNCOVERED DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL IMMEDIATELY SUSPEND WORK AND NOTIFY THE COUNTY OF HAWAII POLICE DEPARTMENT, THE STATE DEPARTMENT OF LAND AND NATURAL RESOURCES – HISTORIC PRESERVATION DIVISION (808–692–8015).

14. IN PERFORMING ALL WORK, THE CONTRACTOR SHALL EXERCISE DUE CARE AND CAUTION NECESSARY TO AVOID ANY DAMAGE INFLICTED TO AND IMPAIRMENT IN THE USE OF ANY EXISTING UTILITY LINE. ANY DAMAGE INFLICTED ON EXISTING UTILITY LINES RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE IMMEDIATELY REPAIRED OR RESTORED AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

15. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY; AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE STATE AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE STATE OR ENGINEER.

16. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM RUBBISH, DUST, NOISE, EROSION, ETC. THE WORK SHALL BE DONE IN CONFORMANCE WITH THE AIR AND WATER POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH.

17. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES AND OTHER PROTECTIVE FACILITIES, AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION, CONVENIENCE AND SAFETY OF THE PUBLIC. THE CONTRACTOR SHALL ENSURE TEMPORARY SAFE PEDESTRIAN PASSAGEWAYS AROUND THE CONSTRUCTION SITE AS PER THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, SECTION 201.3.

18. THE CONTRACTOR SHALL PROVIDE ACCESS TO AND FROM PARKING AREAS AND PUBLIC STREETS AT ALL TIMES.

19. THE CONTRACTOR SHALL PROVIDE AN UNOBSTRUCTED VEHICLE ACCESS PATH THROUGH THE PROJECT SITE AT ALL TIMES FOR SAFE PUBLIC USE.

GENERAL NOTES CONT'D:

20. THE CONTRACTOR SHALL RESTORE TO THEIR ORIGINAL OR BETTER CONDITION, ALL IMPROVEMENTS DAMAGED AS A RESULT OF THE CONSTRUCTION, INCLUDING PAVEMENTS, EMBANKMENTS, CURBS, SIGNS, LANDSCAPING, STRUCTURES, UTILITIES, WALLS, FENCES, ETC. UNLESS PROVIDED FOR SPECIFICALLY IN THE PROPOSAL. DEMOLITION AND RESTORATION OF EXISTING ITEMS SHALL BE INCIDENTAL AND INCLUDED WITHIN THE AMOUNT PAID FOR INSTALLATION OF NEW ITEMS.

21. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS FROM APPROPRIATE GOVERNMENT AGENCIES.

22. ALL EXISTING UTILITIES TO REMAIN IN USE, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AT ALL TIMES BY THE CONTRACTOR DURING CONSTRUCTION UNLESS SPECIFIED ON THE PLANS TO BE ABANDONED. ANY DAMAGES TO EXISTING UTILITIES SHALL BE REPAIRED AND PAID FOR BY THE CONTRACTOR.

23. CONCRETE SHALL BE CLASS A (3,000 PSI) UNLESS OTHERWISE NOTED ON THE PLANS, AND SHALL CONFORM TO THE LATEST REVISION OF THE STATE OF HAWAII DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".

24. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR UTILITIES SUCH AS ELECTRICITY, WATER, ETC. REQUIRED FOR HIS OPERATIONS AND ALL COSTS SHALL BE BORNE BY THE CONTRACTOR.

25. DIMENSIONS TAKE PRECEDENCE OVER SCALE.

26. IF DIMENSIONAL ERRORS OR CONFLICTS OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND SHALL WAIT FOR CLARIFICATION BEFORE RESUMING OR COMMENCING WORK ON THE DISCREPANCY ITEM.

27. ALL CONSTRUCTION AND GRADING STAKEOUT SHALL BE DONE BY A HAWAII LICENSED SURVEYOR HIRED AND PAID FOR BY THE CONTRACTOR.

28. THE CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH, SAFETY, AND ENVIRONMENTAL QUALITY.

DEMOLITION NOTES:

1. BEFORE COMMENCING DEMOLITION WORK, VERIFY WITH THE ENGINEER THE ITEMS TO BE REMOVED, INCLUDING VEGETATION AND TREES.

2. USE ALL MEANS NECESSARY TO PROTECT ADJACENT STRUCTURES AND WORK TO REMAIN. IN THE EVENT OF ANY DAMAGE TO EXISTING WORK TO REMAIN, IMMEDIATELY NOTIFY THE ENGINEER. MAKE REPAIRS OR REPLACEMENT ACCEPTABLE TO THE ENGINEER.

3. PRESERVE AND PROTECT ALL EXISTING TREES AND SHRUBS UNLESS OTHERWISE INDICATED TO BE REMOVED.

4. THE CONTRACTOR SHALL PROTECT AND MINIMIZE DAMAGE TO ALL EXISTING PLANTS AND SIGNIFICANT ROOTS OVER 1" IN DIAMETER THAT ARE TO REMAIN. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ALL PLANT MATERIAL AND ROOTS THAT AFFECT CONSTRUCTION.

5. ALL VOIDS AND CAVITIES CREATED BY THE REMOVAL SHALL BE BACKFILLED AND COMPACTED IN MAXIMUM 8–INCH LIFTS WITH FILL MATERIAL TO MATCH EXISTING SURROUNDING SOILS AND GRADES.

6. THE PROJECT SPECIFICATIONS SHALL BE REFERENCED FOR ADDITIONAL REQUIREMENTS.

TOPOGRAPHIC SURVEY NOTES:

1. COORDINATES ARE REFERRED TO HAWAII STATE PLANE COORDINATE SYSTEM, ZONE 1, NAD 27. SUBTRACT 6°40' TO CONVERT AZIMUTHS TO GOVERNMENT TRIANGULATION STATION "HEIAU."

2. OWNERS OF ADJOINING LANDS AS SHOWN ON MAP ARE FROM AVAILABLE RECORDS FILED AT THE REAL PROPERTY TAX MAPPING BRANCH.

3. MAP IS COMPILED FROM RECORDS FOUND AT THE STATE SURVEY OFFICE, REAL PROPERTY TAX MAPPING BRANCH AND BUREAU OF CONVEYANCES. RECORDED DATA HAS NOT BEEN VERIFIED BY AN ACTUAL SURVEY ON THE GROUND.

4. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM VISIBLE EVIDENCE FOUND DURING FIELD SURVEY. THE SURVEYOR MAKE NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

5. ELEVATIONS ARE REFERRED TO: MEAN LOWER LOW WATER (MLLW).

6. PER NOAA, AT KAWAIHAE HARBOR AN ELEVATION OF 0.0 MLLW = –0.948 MSL.

7. DATE OF SURVEY: MAY 13, 2011.

GRADING NOTES:

1. ALL GRADING WORK SHALL CONFORM TO CHAPTER 10 OF HAWAII COUNTY CODE, AND GEOTECHNICAL ENGINEERING EXPLORATION REPORT BY GEOLABS, INC DATED APRIL 17, 2008. SHOULD A GRADING PERMIT BE REQUIRED, NO WORK SHALL COMMENCE UNTIL THE DEPARTMENT OF PUBLIC WORKS (DPW) APPROVES A GRADING PERMIT.

2. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS CONTAINED IN THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 60.1, "AIR POLLUTION CONTROL".

3. ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SURFACE WATERS FROM DAMAGING THE CUT FACE OF AN EXCAVATION OR THE SLOPED SURFACES OF A FILL. FURTHERMORE, ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SEDIMENT–LADEN RUNOFF FROM LEAVING THE SITE.

4. THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF THE GRADING WORK.

5. WHERE APPLICABLE THE MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE ANY EARTH MOVING PHASE OF THE GRADING IS INITIATED.

6. TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN–PLACE AND ESTABLISHED.

7. THE CONTRACTOR SHALL INFORM THE DLNR OF THE LOCATION OF THE DISPOSAL AND/OR BORROW SITE(S) REQUIRED FOR THIS PROJECT WHEN AN APPLICATION FOR A GRADING PERMIT IS MADE. THE DISPOSAL AND/OR BORROW SITE(S) MUST ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE.

8. IF THE GRADING WORK INVOLVES CONTAMINATED SOIL, THEN ALL GRADING WORK SHALL BE DONE IN CONFORMANCE WITH APPLICABLE STATE AND FEDERAL REQUIREMENTS.

9. FILLS SHALL BE COMPACTED TO A MINIMUM 90 PERCENT (%) RELATIVE COMPACTION PER ASTM D–1557 TEST. FILLS WITHIN 3 FEET OF FINISHED PAVEMENT, GRADES SHALL BE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION.

10. THE CONTRACTOR SHALL REMOVE ALL VEGETATION, CONSTRUCTION DEBRIS, AND OTHER DELETERIOUS MATERIAL PRIOR TO FILLING OR BACKFILLING.

11. IF SOFT OR YIELDING AREAS ARE ENCOUTERED IN FILL/BACKFILL LOCATIONS, THEY ARE TO BE OVER EXCAVATED TO EXPOSE FIRM AND/OR DENSE MATERIALS. THE EXCAVATION SHOULD THEN BE BACKFILLED WITH WELL–COMPACTED FILLS.

12. GENERAL FILL MATERIALS SHALL CONSIST OF EXCAVATED ON–SITE OR GRANULAR MATERIALS FREE OF VEGETATION, DELETERIOUS MATERIALS, AND CLAY LUMPS AND ROCK FRAGMENTS GREATER THAN 3 INCHES IN MAXIMUM DIMENSION. IMPORTED FILL/BACKFILL MATERIALS SHALL CONSIST OF CRUSHED CORAL AND BASALT. THEY SHALL BE WELL–GRADED FROM COURSE TO FINE, WITH PARTICLES NO GREATER THAN 3 INCHES IN MAXIMUM DIMENSION. FILL MATERIAL SHALL CONTAIN 10%–30% PARTICLES PASSING THE NO. 200 SIEVE, AND SHOULD HAVE A CBR VALUE OF 20 OR MORE AND A SWELL VALUE OF 1% OR LESS (ASTM D–1883).

13. NON–COMPLIANCE TO ANY OF THE ABOVE REQUIREMENTS SHALL MEAN IMMEDIATE SUSPENSION OF ALL WORK, AND REMEDIAL WORK SHALL COMMENCE IMMEDIATELY. ALL COSTS INCURRED SHALL BE BILLED TO THE VIOLATOR. FURTHERMORE, VIOLATORS SHALL BE SUBJECTED TO ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES.

14. FILL PLACED ON SLOPES GREATER THAN 5:1 SHALL BE KEYED AND BENCHED INTO THE EXISTING SLOPE.

15. FILL/BACKFILL AREAS SHALL BE SCARIFIED TO A MINIMUM OF 8" AFTER CLEARING AND GRUBBING AND/OR GRADING. SOIL SHALL BE MOISTURE CONDITIONED TO ABOVE THE OPTIMUM MOISTURE CONTENT, AND COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION (ASTM D–1557).

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

DIANE Y. KODAMA — LICENSED PROFESSIONAL ENGINEER — No. 8688-C — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/14

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS
S. KOHALA, ISLAND OF HAWAII, HAWAII

CONSTRUCTION NOTES–1

DESIGNED: TS	SUBMITTED: 02/04/13
DRAWN: TS	DATE: 02/04/13
CHECKED: DYK/MXD	SCALE: AS NOTED
APPROVED: CHIEF ENGINEER / DATE	DRAWING NO. C-1

JOB NO. B13CH73A

PATH/FILENAME: P:\USIG\Civil\Hawaii\60238348 DLNR Kawaihae Harbor – Road and Waterline\400 Design\Drawings\Construction Notes–1.dwg LAST UPDATE: September 13, 2013 @ 04:13:46 pm PLOT DATE: November 04, 2013 @ 08:48:32 am

WATER NOTES:

1. ALL WORK SHALL BE DONE ACCORDING TO THE WATER SYSTEM STANDARDS, STATE OF HAWAII, DATED 2002 AS AMENDED.

2. THE CONTRACTOR SHALL INFORM THE DEPARTMENT OF WATER SUPPY (DWS) ENGINEER 72 HOURS PRIOR TO THE BEGINNING OF ANY WATERLINE WORK AND TWO WEEKS PRIOR TO ANY CONNECTION, CHLORINATION, SHUT-OFF OR RELOCATION WORK.

3. THE CONTRACTOR SHALL PAY FOR ALL WORK, EQUIPMENT AND MATERIALS FURNISHED BY THE DWS.

4. ALL EXISTING WATERLINES, WATERLINE APPURTENANCES, AND OTHER UTILITY LOCATIONS SHOWN ON THE PLANS ARE OBTAINED FROM THE LATEST RELIABLE SOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXACT LOCATION OF ALL UTILITIES IN THE FIELD AND SHALL BEAR ALL COST FOR DAMAGES DONE TO THE WATER SYSTEM.

5. ALL CONNECTIONS TO EXISTING WATERLINES SHALL BE DONE BY THE DWS. CONTRACTOR SHALL PERFORM ALL EXCAVATION, BACKFILL, ROAD REPAIR, TRAFFIC CONTROL, AND PROVIDE EQUIPMENT NECESSARY TO COMPLETE THE CONNECTION.

6. WHERE WATER SHUT OFF OF MORE THAN 3 HOURS BECOMES NECESSARY, THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL PROVIDE A TEMPORARY BY-PASS LINE. THE DWS ENGINEER SHALL DETERMINE THE BY-PASS LINE SIZE. IF NECESSARY, THE DWS ENGINEER MAY REQUIRE A BY-PASS LINE, REGARDLESS OF THE EXPECTED SHUT OFF PERIOD.

7. MINIMUM HORIZONTAL CLEARANCE BETWEEN WATERLINE AND OTHER UTILITIES SHALL BE 8 FEET, UNLESS OTHERWISE SPECIFIED. MINIMUM VERTICAL CLEARANCE BETWEEN WATERLINE AND OTHER UTILITIES SHALL BE 12 INCHES, PROVIDED CONCRETE JACKETS ARE USED, AND 18 INCHES IF NO CONCRETE JACKETS ARE USED. IN ALL APPLICABLE INSTANCES, THE WATERLINES SHALL BE AT A GRADE HIGHER THAN OTHER UTILITIES.

8. ALL FITTINGS (CLASS 250 MINIMUM) AND ALL GATE VALVES (CLASS 200) SHALL BE DUCTILE IRON, WITH MECHANICAL JOINTS UNLESS OTHERWISE SPECIFIED. BUTTERFLY VALVES SHALL BE CLASS 250 WITH EPOXY-COATED INTERIOR UNLESS OTHERWISE SPECIFIED.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CHLORINATION OF THE WATER SYSTEM AND SHALL BEAR ALL COSTS. THE PERSON(S) ENGAGED TO DO THE CHLORINATION WORK MUST HAVE THE APROPRIATE LICENSE TO PERFORM THE WORK IN THE STATE OF HAWAII.

10. EXISTING VALVES, FIRE HYDRANT UNITS, VALVE BOXES, FRAMES AND COVERS DESIGNATED "REMOVE AND SALVAGE" SHALL BE CLEANED OF ALL DIRT, SCABS, AND CONCRETE AND DELIVERED TO THE RESPECTIVE DWS BASEYARD. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS BID ITEMS, UNLESS SPECIFIED OTHERWISE.

11. EXISTING WATERLINES, VALVES, FITTINGS AND APPURTENANCES NOT DESIGNATED "REMOVE AND SALVAGE" SHALL BE ABANDONED IN PLACE. ALL EXPOSED VALVE BOXES, VALVES, PIPES AND APPURTENANCES SHALL BE REMOVED AND DISPOSED OF PROPERLY AT NO COST TO THE DWS.

12. RELOCATION OF EXISTING METERS SHALL BE DONE BY OR UNDER DWS SUPERVISION. RELOCATIONS OF CUSTOMER SERVICE LINES TO RELOCATED METERS SHALL BE COPPER AND DONE BY THE CONTRACTOR. ALL WORK AND MATERIALS SHALL BE PROVIDED BY THE CONTRACTOR AND CONSIDERED INCIDENTAL TO THE RELOCATION WORK. EXISTING METER BOXES DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE CONTRACTOR'S COST. A DIELECTRIC UNION SHALL BE USED TO CONNECT THE COPPER PIPE TO THE CUSTOMER'S G.I. PIPE (IF APPLICABLE).

13. THE DWS WILL NOT ASSUME OWNERSHIP OF NOR GRANT ANY WATER SERVICE UNTIL THE WATER SYSTEM IS DEDICATED TO THE DWS ALONG WITH ALL NECESSARY EASEMENTS AND DOCUMENTS.

14. WHEN COMPACTION TESTS ARE REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE THE DWS WITH PROCTOR RESULTS OF MATERIALS TO BE USED FOR THAT PORTION OF THE WORK REQUIRING COMPACTION. THESE RESULTS SHALL BE CERTIFIED AND SHALL BE FURNISHED TO DWS ONE WEEK PRIOR TO COMMENCEMENT OF WORK. COST FOR COMPACTION TESTS SHALL BE INCIDENTAL TO PIPELINE INSTALLATION.

15. ALL NEWLY INSTALLED WATERLINES SHALL HAVE A BLUE WARNING TAPE LABELED "WATERLINE" PLACED DIRECTLY OVER THE COMPACTED CUSHION MATERIAL.

16. CONSTRUCTION PROJECTS REQUIRING TEMPORARY WATER SERVICE SHALL BE METERED AND PAID FOR BY THE CONTRACTOR.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORD DRAWINGS (AS-BUILT DRAWINGS) AND THE LICENSED ENGINEER SHALL CERTIFY THE DRAWINGS AS TO ACCURACY AND SUBMIT THE DRAWINGS AND AS-BUILT TRACINGS TO THE DWS.

18. INSTALL DWS APPROVED BACKFLOW PREVENTION ASSEMBLY (ABOVE GROUND ON PRIVATE PROPERTY) AS CLOSE TO THE METER AS POSSIBLE, PER WATER SYSTEM STANDARDS DETAIL V-9. ITS INSTALLATION IS NOT REQUIRED FOR FINAL SUBDIVISION APPROVAL, HOWEVER, DEPARTMENT STAFF MUST APPROVE THE INSTALLATION BEFORE WATER SERVICE CAN BE GRANTED. NO TAPS OR CONNECTIONS ARE PERMITTED BETWEEN THE METER AND BACKFLOW PREVENTION ASSEMBLY. TESTING REQUIREMENTS IS ONCE PER YEAR.

19. THE OWNER SHALL MAKE PROVISIONS FOR THOSE TIMES WHEN THE ASSEMBLY IS BEING REPAIRED.

20. CONTRACTOR SHALL BE RESPONSIBLE FOR TONING EXISTING WATER LINE(S) AND VERIFYING THEIR EXACT LOCATION PRIOR TO INSTALLING WATER LATERALS.

21. SOLDER, 1/8-INCH DIAMETER, AND FLUX SHALL CONTAIN NOT MORE THAN 0.2 PERCENT LEAD.

22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING EXISTING SERVICES AS NECESSARY.

23. PIPELINES 4" OR LARGER SHALL BE DUCTILE IRON CLASS 52, PUSH ON JOINT AND ALL PIPELINES SMALLER THAN 4" SHALL BE SOFT COPPER TYPE K, UNLESS OTHERWISE SPECIFIED.

24. THE WATER SYSTEM BEYOND THE DWS WATER METERS SHALL BE PRIVATELY OWNED, OPERATED AND MAINTAINED, UNLESS OTHERWISE INDICATED.

25. WHEN THE PROJECT INCLUDES SERVICE LATERALS OR RELOCATION OF SERVICE LATERALS, THE METER BOXES SHALL BE INSTALLED AND CONSIDERED INCIDENTAL TO THE SERVICE LATERAL. EXISTING METER BOXES MISSING OR DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT CONTRACTOR'S COST. C.I. COVERS SHALL BE FURNISHED AS PART OF THE METER BOX.

26. ALL WATER AND ELECTRIC CROSSINGS SHALL BE SEPARATED BY CONCRETE JACKETS.

27. ALL MECHANICAL JOINT FITTINGS, VALVES AND BENDS SHALL INCLUDE THRUST RESTRAINT AND USE MEGALUG JOINT RESTRAINTS OR APPROVED EQUAL.

28. HORIZONTAL THRUST BLOCKS SHALL BE IN ACCORDANCE WITH STANDARD DETAILS B3, B4, B5.

29. THRUST BLOCKS TO BE INSTALLED TO SUIT ACTUAL SOIL AND ROCK CONDITIONS ENCOUNTERED.

30. FOR ALL SERVICE LATERALS MARKED AS "CUT AND PLUG" THEIR RESPECTIVE METER BOX FRAME AND COVER SHALL BE REMOVED, SALVAGED, CLEANED AND TAKEN TO THE RESPECTIVE BASEYARD AND THE SERVICE LATERAL SHALL BE CUT AND PLUGGED AT THE MAIN.

31. ALL SURFACE DRAINAGE TO BE DIVERTED AWAY FROM WATERLINE VAULTS, METER BOXES AND VALVE BOXES.

32. THE DEPARTMENT OF WATER SUPPLY IS PROVIDING ITS REVIEW AND INSPECTION FOR CONFORMANCE OF THE SUBJECT WATER SYSTEM IMPROVEMENTS WITH THE DWS' WATER SYSTEM STANDARDS. THIS REVIEW IS BASED ON THE INFORMATION AND CERTIFICATION PROVIDED TO DWS BY THE DEVELOPER, LICENSED ARCHITECT OR ENGINEER, AND THE OWNER OF THE WATER COMPANY/UTILITY AND SUCCESSORS AND ASSIGNS, AND IS FOR GENERAL CONFORMANCE TO THE CURRENT WATER RULES AND REGULATIONS.

33. METER BOXES FOR 5/8-INCH METERS LOCATED WITHIN PAVEMENT OR AS INDICATED ON THE PROJECT PLANS TO BE TYPE "X" PER STD DETAIL M3.

34. OUTSIDE OF STATE ROAD RIGHT-OF-WAYS: MINIMUM COVER ON WATER SYSTEM PIPELINES 4-INCH THROUGH 8-INCH TO BE 2.0 FEET. MINIMUM COVER ON 12-INCH PIPELINES TO BE 2.5 FEET. MINIMUM COVER ON PIPELINES GREATER THAN 12-INCH TO BE 3.0 FEET. MAXIMUM COVER ON PIPELINES NOT TO EXCEED 5 FEET UNLESS APPROVED BY THE MANAGER OF DWS. WITHIN STATE ROAD RIGHT-OF-WAYS: MIN. COVER ON ALL SIZES OF WATERLINES TO BE 3.0 FEET.

35. WHEN WATERLINE IS WITHIN 6-FEET OF PRESSURIZED SEWER LINE OR WITHIN 18-INCHES OF GRAVITY SEWER LINE, THE SEWER MAIN SHALL BE REINFORCED CONCRETE JACKETED. WHENEVER A WATER MAIN CROSSES UNDER A SEWER MAIN, THE SEWER MAIN SHALL HAVE REINFORCED CONCRETE JACKET ON BOTH SIDES OF CROSSING TO A DISTANCE 5 FEET FROM THE WATERLINE (MEASURED PERPENDICULAR TO WATERLINE). STANDARD CONCRETE JACKET DETAILS FOR SEWER LINES, AS SPECIFIED BY THE DPW STANDARDS SHALL BE FOLLOWED. PLASTIC PIPES SHALL NOT BE JACKETED. DUCTILE IRON OR CONCRETE CYLINDER PIPE SHALL BE USED FOR THE PORTION TO BE JACKETED.

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

DIANE Y. KODAMA
LICENSED PROFESSIONAL ENGINEER
No. 8888-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/14

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS
S. KOHALA, ISLAND OF HAWAII, HAWAII

CONSTRUCTION NOTES-2

DESIGNED:	TS	SUBMITTED:	02/04/13
DRAWN:	TS	DATE:	02/04/13
CHECKED:	DYK/MXD	SCALE:	AS NOTED

APPROVED:

CHIEF ENGINEER — DATE

DRAWING NO. C-2

PATH/FILENAME: P:\USGS\Civil\Dwgs\60338348 DLNR Kawaihae Harbor - Road and Waterline\KSD Design\Drawings\Construction Notes-1.dwg LAST UPDATE: September 13, 2013 @ 04:13:48 pm PLOT DATE: November 04, 2013 @ 08:48:38 am

TMK(3) 6-1-2:60
TMK(3) 6-1-2:61
TMK(3) 6-1-2:62
TMK(3) 6-1-2:63
TMK(3) 6-1-2:66
TMK(3) 6-1-2:65
TMK(3) 6-1-2:69
TMK(3) 6-1-2:70
TMK(3) 6-1-2:71
TMK(3) 6-1-2:72
TMK(3) 6-1-2:73
TMK(3) 6-1-2:74
TMK(3) 6-1-2:75
TMK(3) 6-1-2:76
TMK(3) 6-1-2:77
TMK(3) 6-1-2:78
TMK(3) 6-1-2:79
TMK(3) 6-1-2:80
TMK(3) 6-1-2:83

TO HAWI

KAWAIHAE ROAD (STATE)

STA KH-7
MAGNAIL W/ SHINER
ELEV=11.47

PARCEL B
(CSF 12,825)
(GOVERNOR'S EXECUTIVE ORDER 1862)
DATED SEPTEMBER 15, 1958

(BENCHMARK TO KH-7)
52° 44' 42"
254.94'

TO KAILUA

TO SPENCER PARK

BENCHMARK
STA KH-8
MAGNAIL W/
SHINER
ELEV=7.38

TMK(3)
6-1-3:25

STA KH-9
MAGNAIL
W/ SHINER
ELEV=7.19

(BENCHMARK TO KH-9)
68° 25' 58"
321.91'

PROPERTY
LINE

40' SHORELINE SETBACK

TMK (3) 6-1-003:026

PROPERTY
LINE

KAWAIHAE DEEP DRAFT HARBOR

APPROXIMATE
LOCATION OF
CHAINLINK FENCE
BY OTHERS

SHORELINE

PELEKANE BAY

PARCEL G
(CSF 14,777)
(GOVERNOR'S EXEC ORD 2142)
6.37 ACRES

LOT 4
(GOVERNOR'S EXEC. ORD. 1759)
(DEPT OF ARMY U.S.A)
(CSF 12,572)

TMK (3)6-1-003:022
LOT 3
(GOVERNOR'S EXEC. ORD. 1759)
(DEPT OF ARMY U.S.A)
(CSF 12,572)

EXIST YMCA
PAVILIONS

SHORELINE

KAWAIHAE SMALL
BOAT HARBOR
(SOUTH)

SHORELINE
SETBACK

FUTURE BOAT
LAUNCH RAMP

EXIST WEST
BREAKWATER
(USACE)

EXIST EAST
BREAKWATER
(USACE)

LEGEND AND ABBREVIATIONS

- AC PAVEMENT
- PROPERTY LINE
- PROJECT LIMITS

GENERAL SITE PLAN

SCALE: 1" = 150'

SCALE: 1"=150' 0 150' 300' 600' SCALE FEET

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

DIANE Y. KODAMA
LICENSED PROFESSIONAL ENGINEER
No. 8888-C
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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/14

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS
S. KOHALA, ISLAND OF HAWAII, HAWAII

GENERAL SITE PLAN

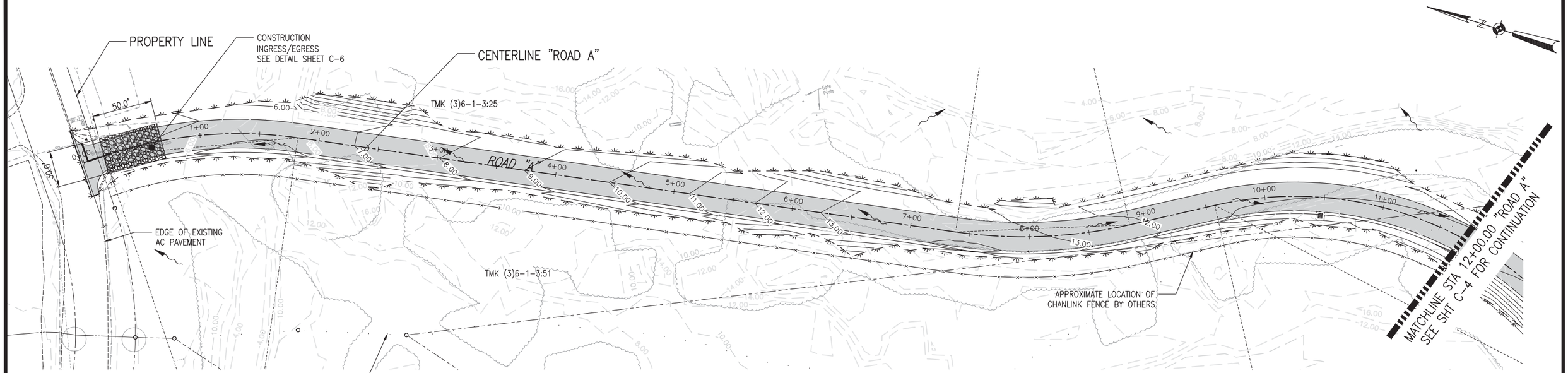
DESIGNED:	TS	SUBMITTED:	02/04/13
DRAWN:	TS	DATE:	02/04/13
CHECKED:	DYK/MXD	SCALE:	AS NOTED
APPROVED:			

CHIEF ENGINEER DATE

DRAWING NO. C-3

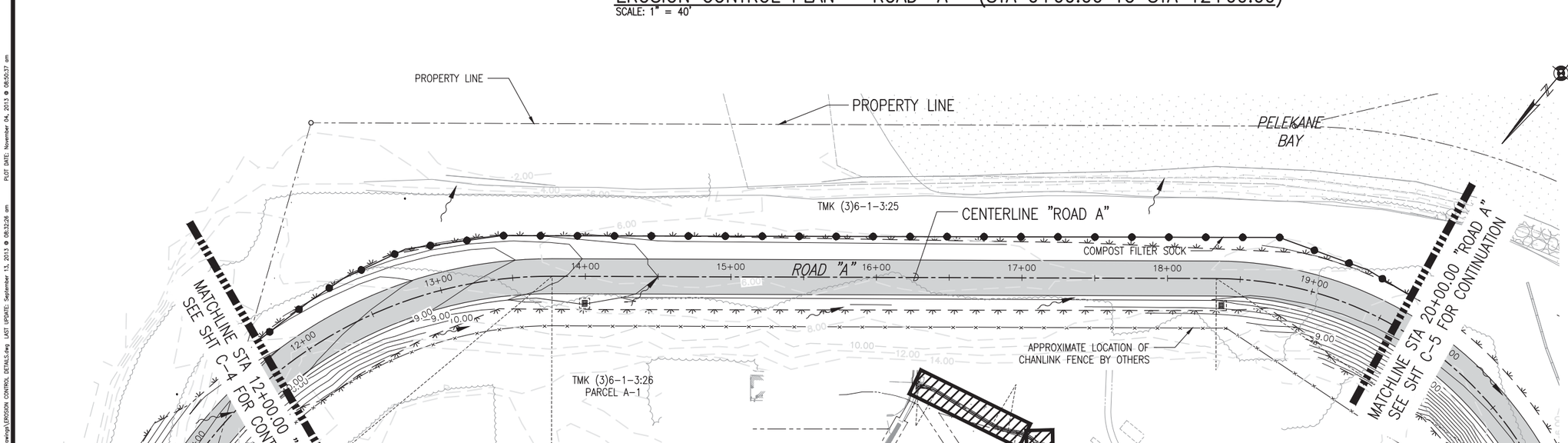
JOB NO. B13CH73A

PATH/FILENAME: P:\JOBS\Civil\Hawai\60328348 DLNR Kawaihae Harbor - Road and Waterfront\60 Design\Drawings\GENERAL SITE PLAN.dwg LAST UPDATE: September 07, 2013 @ 03:22:52 pm PLOT DATE: November 04, 2013 @ 08:46:57 am



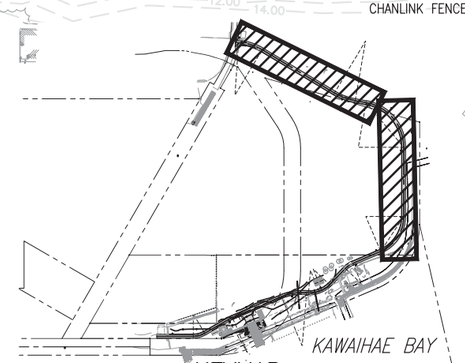
EROSION CONTROL PLAN – ROAD "A" (STA 0+00.00 TO STA 12+00.00)

SCALE: 1" = 40'



EROSION CONTROL PLAN – ROAD "A" (STA 12+00.00 TO STA 20+00.00)

SCALE: 1" = 40'



KEYMAP

SCALE: 1" = 500'

LEGEND AND ABBREVIATIONS

- 40 — EXISTING INDEX CONTOUR (10-FT)
- EXISTING INTERMEDIATE CONTOUR (2-FT)
- 40 — FINISH INDEX CONTOUR (5-FT)
- FINISH INTERMEDIATE CONTOUR (1-FT)
- PROPOSED SURFACE FLOW DIRECTION
- PROPERTY LINE
- LIMITS OF GRADING
- COMPOST FILTER SOCK

SCALE: 1"=40' — 0, 40', 80', 160' SCALE FEET

SCALE: 1"=500' — 0, 500', 1000', 2000' SCALE FEET

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

DIANE Y. KODAMA LICENSED PROFESSIONAL ENGINEER No. 8888-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/14

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS
S. KOHALA, ISLAND OF HAWAII, HAWAII

EROSION CONTROL PLAN 1

DESIGNED:	TS	SUBMITTED:	02/04/13
DRAWN:	TS	DATE:	02/04/13
CHECKED:	DYK/MXD	SCALE:	AS NOTED

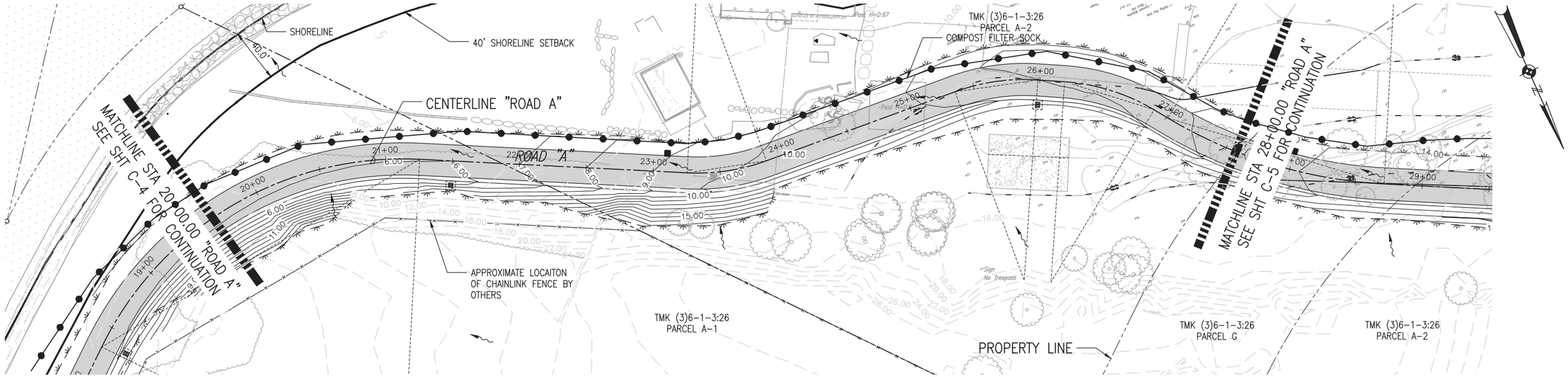
APPROVED:

CHIEF ENGINEER — DATE

DRAWING NO. C-4

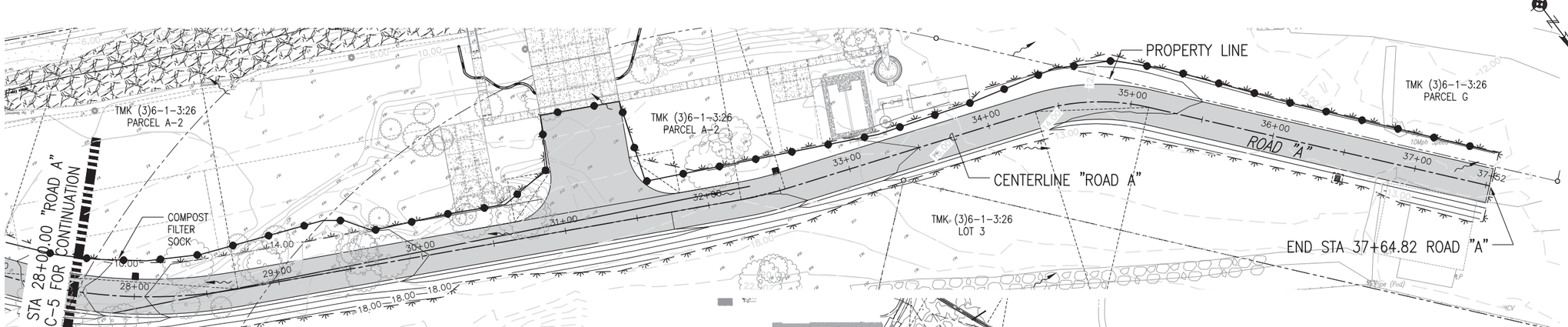
PATH/FILENAME: P:\USGS\Civil\Vision\60238348 BNR Kawaihae Harbor - Road and Waterline\400 Design\Drawings\EROSION CONTROL DETAILS.dwg LAST UPDATE: September 13, 2013 @ 08:32:26 am PLOT DATE: November 04, 2013 @ 08:50:37 am

JOB NO. B13CH73A



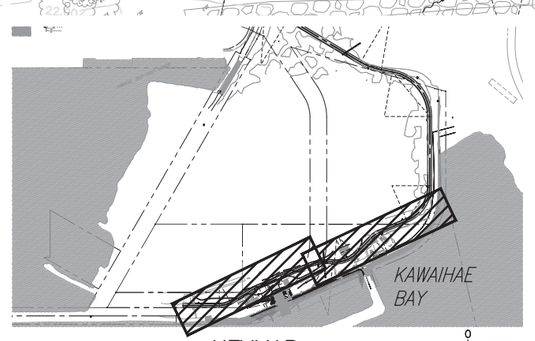
EROSION CONTROL PLAN – ROAD "A" (STA 20+00.00 TO STA 28+00.00)

SCALE: 1" = 40'



EROSION CONTROL PLAN – ROAD "A" (STA 28+00.00 TO STA 37+64.82)

SCALE: 1" = 40'



KEYMAP

SCALE: 1" = 500'

SCALE: 1"=40' 0 40' 80' 160' SCALE FEET

LEGEND AND ABBREVIATIONS

- 40 — EXISTING INDEX CONTOUR (10-FT)
- EXISTING INTERMEDIATE CONTOUR (2-FT)
- 40 — FINISH INDEX CONTOUR (5-FT)
- FINISH INTERMEDIATE CONTOUR (1-FT)
- PROPOSED SURFACE FLOW DIRECTION
- PROPERTY LINE
- LIMITS OF GRADING
- COMPOST FILTER SOCK

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

DIANE Y. KODAMA
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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/14

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS
S. KOHALA, ISLAND OF HAWAII, HAWAII

EROSION CONTROL PLAN 2

DESIGNED:	TS	SUBMITTED:	02/04/13
DRAWN:	TS	DATE:	02/04/13
CHECKED:	DYK/MXD	SCALE:	AS NOTED

APPROVED: CHIEF ENGINEER DATE

DRAWING NO. C-5

PWN/FILENAME: P:\USR\Civil\Views\60238348 DLNR Kawaihae Harbor - Road and Waterline\400 Design\Drawings\EROSION CONTROL DETAILS.dwg LAST UPDATE: September 13, 2013 @ 08:32:26 am PLOT DATE: November 04, 2013 @ 08:51:31 am

EROSION CONTROL NOTES:

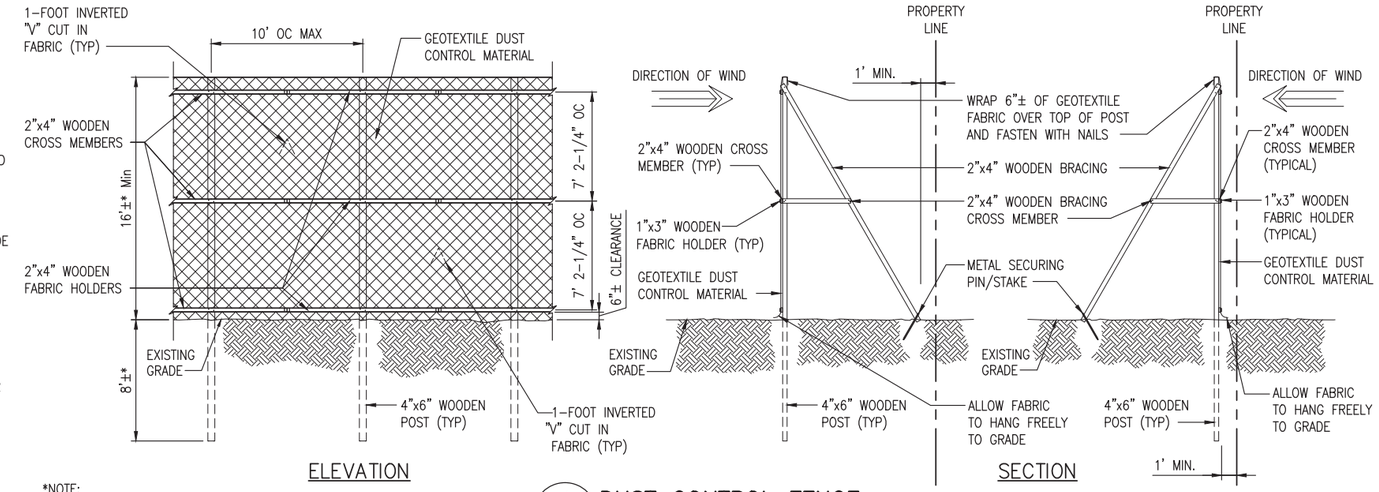
1. ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EACH WEEK AND WITHIN 24 HOURS FOLLOWING ANY RAINFALL EVENT OF 1/2" OR GREATER.
2. ALL MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER. IF REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS AFTER THE INSPECTION.
3. BUILT-UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
4. SILT SCREEN OR FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO VERIFY THAT THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS OR CONCRETE SLAB AND TO VERIFY THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
5. TURBIDITY BARRIERS SHALL BE INSPECTED AND PROPERLY MAINTAINED TO PROVIDE ADEQUATE SEDIMENT SETTLING. SEDIMENT SHALL BE REMOVED AT THE END OF CONSTRUCTION (OR AS REQUIRED), DRIED, AND MAY BE USED AS GENERAL FILL OR SHALL BE PROPERLY DISPOSED OF.
6. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE REPORT TO THE ENGINEER PROMPTLY AFTER EACH WEEKLY INSPECTION.
7. THE CONTRACTOR SHALL SELECT A MINIMUM OF THREE PERSONNEL WHO SHALL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.
8. PERSONNEL SELECTED FOR THE INSPECTION AND MAINTENANCE RESPONSIBILITIES SHALL RECEIVE TRAINING FROM THE CONTRACTOR. THEY SHALL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.
9. TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED.
10. THE CONTRACTOR SHALL PROVIDE GRAVEL CONSTRUCTION ENTRANCE FOR EACH INGRESS/EGRESS.
11. THE CONTRACTOR SHALL COMPLETE ALL BACKFILLING WORK USING WATER AND MULCHING TO PREVENT DUST, EROSION AND SEDIMENTATION.
12. EXPOSED AREAS SHALL BE MULCHED IMMEDIATELY AFTER GRADING FOR TEMPORARY EROSION CONTROL.

GRAVEL BAG BERM NOTES:

1. BAG MATERIAL: BAGS SHOULD BE WOVEN POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE FABRIC OR BURLAP, MINIMUM UNIT WEIGHT OF 4 OUNCES/YD^2, MULLEN BURST STRENGTH EXCEEDING 300 LB/IN^2 IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM DESIGNATION D3786, AND ULTRAVIOLET STABILITY EXCEEDING 70% IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM DESIGNATION D4355.
2. BAG SIZE: EACH GRAVEL-FILLED BAG SHOULD HAVE A LENGTH OF 18 IN., WIDTH OF 12 IN., THICKNESS OF 3 IN., AND MASS OF APPROXIMATELY 33 LBS. BAG DIMENSIONS ARE NOMINAL, AND MAY VARY BASED ON LOCALLY AVAILABLE MATERIALS.
3. FILL MATERIAL: FILL MATERIAL SHOULD BE 0.5 TO 1 IN. CLASS 2 AGGREGATE BASE, CLEAN AND FREE FROM CLAY, ORGANIC MATTER, AND OTHER DELETERIOUS MATIERAL, OR OTHER SUITABLE OPEN-GRADED, NON-COHESIVE, POROUS GRAVEL.
4. TURN THE ENDS OF THE GRAVEL BAG BARRIERS UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE BERM.
5. BUTT ENDS OF BAGS TIGHTLY.
6. OVERLAP BUTT JOINTS OF ADJACENT ROW AND ROW BENEATH.

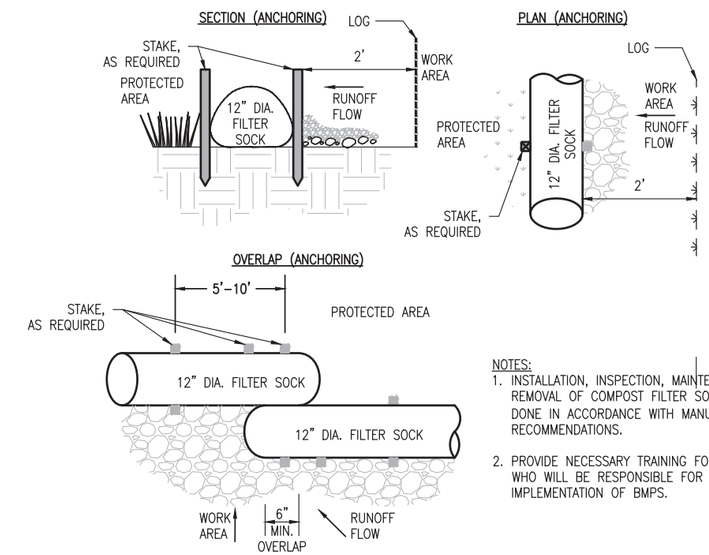
BEST MANAGEMENT PRACTICES NOTES:

1. THE CONTRACTOR SHALL INSTALL SILT FENCES, TURBIDITY BARRIERS, AND OTHER ITEMS SHOWN ON THIS EROSION CONTROL PLAN PRIOR TO CONSTRUCTION.
2. ALL BEST MANAGEMENT PRACTICES (BMP'S) SHALL NOT BE REMOVED UNTIL ALL PERMANENT EROSION CONTROLS ARE IN PLACE AND ESTABLISHED.
3. THE CONTRACTOR AT HIS OWN EXPENSE SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE H.A.R. AIR POLLUTION CONTROL CHAPTER 11-60, "AIR POLLUTION CONTROL."
4. THE CONTRACTOR SHALL EMPLOY WATER SPRAYING AS NECESSARY TO PROVIDE ADEQUATE DUST CONTROL.
5. THE CONTRACTOR SHALL KEEP EXISTING ROADWAYS FREE FROM SILT.
6. THE CONTRACTOR SHALL INSPECT SILT FENCES ON A WEEKLY BASIS AND AFTER RAINFALL, REPAIRING THE FENCES WHENEVER THEY ARE DAMAGED AND REMOVING SILT WHEN IT REACHES 1/3 THE HEIGHT OF THE FENCE.
7. ANY BACKFILLED AREA WHICH WILL BE LEFT IDLE FOR THIRTY (30) CALENDAR DAYS OR MORE SHALL BE MULCHED.
8. WASHING DOWN OF CONSTRUCTION EQUIPMENT AND VEHICLES AND FROM CONCRETE TRUCK DRUMS AT SITE IS PROHIBITED. WASHWATER FROM WASH-DOWNS SHALL NOT BE DISCHARGED INTO DRAINAGE SYSTEMS NOR STATE WATERS.
9. AN 8" THICK, 3' WIDE GRAVEL HEADER SHALL BE INSTALLED ALONG THE TOP OF EXISTING REVETMENT AS INDICATED ON THE PLANS FOR SOIL STABILIZATION.
10. SHOULD THE CONTRACTOR CHOOSE TO HAVE AN ON-SITE MAINTENANCE/STORAGE/STOCKPILE AREA, THE CONTRACTOR SHALL INSTALL PROPER SECONDARY CONTAINMENT STRUCTURES SUCH AS GRAVEL BERMS AND SILT FENCES AROUND THE DESIGNATED AREA TO PREVENT STORMWATER CARRYING CONTAMINANTS INTO DRAINAGE SYSTEMS AND STATE WATERS. THE RAINWATER ACCUMULATED WITHIN THE DESIGNATED AREA SHALL BE NATURALLY EVAPORATED OR INFILTRATED INTO THE GROUND. STOCKPILING AREAS SHALL ALSO BE COVERED AND PROTECTED FROM EROSION, AS NECESSARY.
11. THE CONTRACTOR SHALL PROVIDE REQUIRED INFORMATION TO THE STATE DEPARTMENT OF HEALTH AS STATED IN THE APPENDIX OF NPDES GENERAL PERMIT APPLICATION FOR DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY THIRTY (30) DAYS BEFORE THE COMMENCEMENT OF CONSTRUCTION.



*NOTE:
CONTRACTOR IS RESPONSIBLE FOR ADJUSTING THE FENCE HEIGHT TO PROVIDE ADEQUATE DUST CONTROL.

1 / C-6 DUST CONTROL FENCE
SCALE: NTS



NOTES:
1. INSTALLATION, INSPECTION, MAINTENANCE AND REMOVAL OF COMPOST FILTER SOCKS SHALL BE DONE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE NECESSARY TRAINING FOR PERSONNEL WHO WILL BE RESPONSIBLE FOR IMPLEMENTATION OF BMPS.

2 / C-6 COMPOST FILTER SOCK INSTALLATION
SCALE: NTS

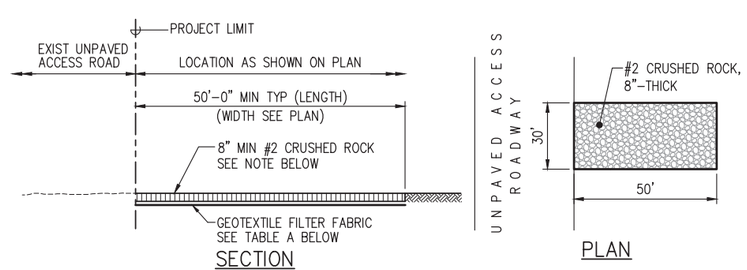


TABLE A: GEOTEXTILE REQUIREMENTS	
PHYSICAL PROPERTY	REQUIREMENTS
GRAB TENSILE STRENGH	220 LB (ASTM D1682)
ELONGATION FAILURE	60% (ASTM D1682)
MULLEN BURST STRENGH	430 LB (ASTM D3768)
PUNCTURE STRENGTH	125 LB (ASTM D751, MODIFIED)
EQUIVALENT OPENING	SIZE 40-80 (U.S. STD SIEVE, CW-02215)

4 / C-6 CONSTRUCTION INGRESS/EGRESS DETAILS
SCALE: NTS

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

DIANE Y. KODAMA LICENSED PROFESSIONAL ENGINEER No. 8888-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/14

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS
S. KOHALA, ISLAND OF HAWAII, HAWAII

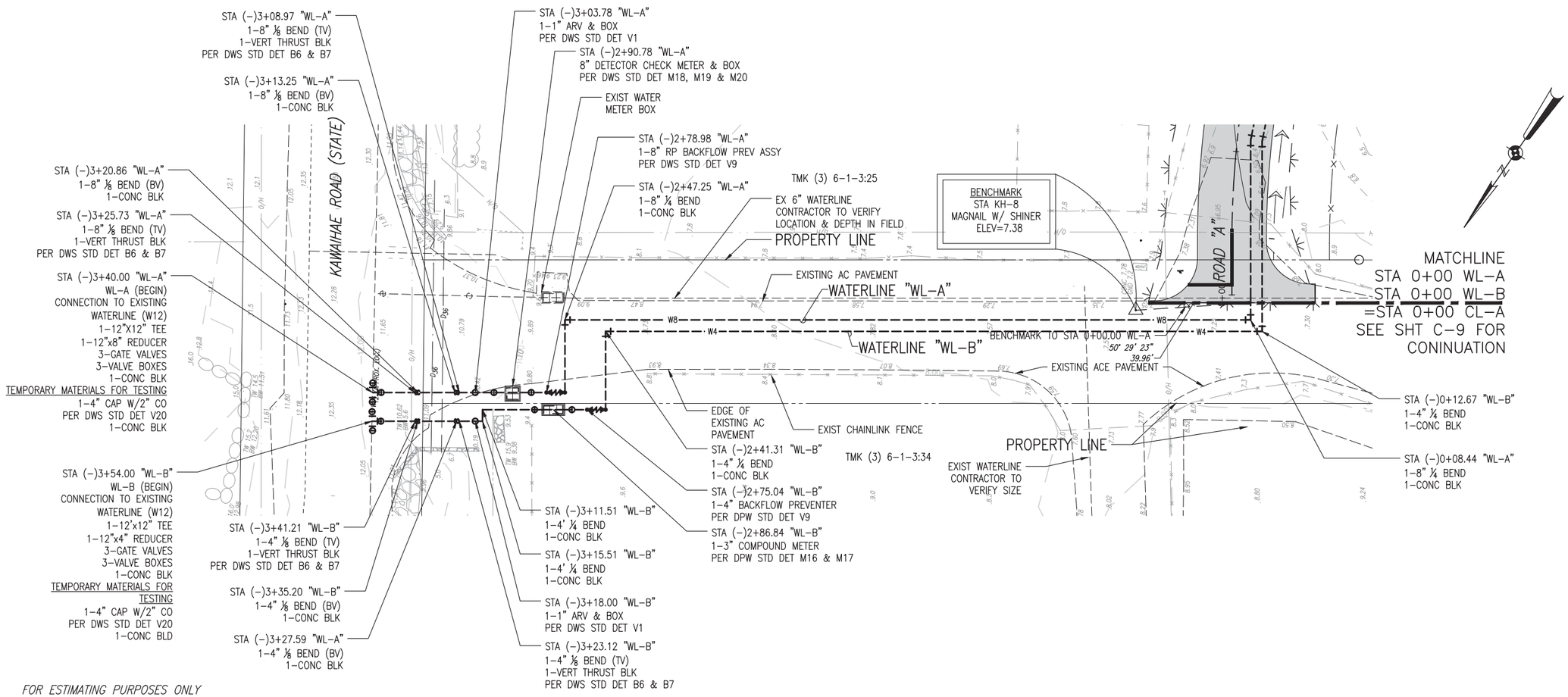
EROSION CONTROL DETAILS

DESIGNED:	TS	SUBMITTED:	02/04/13
DRAWN:	TS	DATE:	02/04/13
CHECKED:	DYK/MXD	SCALE:	AS NOTED

APPROVED: CHIEF ENGINEER — DATE

DRAWING NO. C-6

PATH/FILENAME: P:\USGS\Civil\Drawn\60338348 DLNR Kawaihae Harbor - Road and Waterline\400 Design\Drawings\EROSION CONTROL DETAILS.dwg LAST UPDATE: September 13, 2013 @ 08:32:28 am PLOT DATE: November 04, 2013 @ 08:52:17 am



SITE & UTILITY PLAN – WATERLINE "WL–A" (STA (–)3+07.45 TO STA 0+00.00)

SCALE: 1" = 20'

FOR ESTIMATING PURPOSES ONLY

DESCRIPTION OF WORK		ESTIMATE
____DOMESTIC SERVICE		
¾" Meter	$ XXXX	$ XXXX
INSTALLATION CHARGE	$ XXXX	
WATER SYSTEM FACILITIES CHARGES (SOURCE ONLY)		
___ F.U. x XXXXX	$	$
	$	$
	$	$
S/N _____		
S/N _____		
____FIRE SERVICE		
Meter	$ N/A	$ N/A
Installation Charge	$ N/A	$ N/A
One–time Charge	$	$
TOTAL		$

* Credits will be determined when the building permit application is submitted for bws review and approval.

The estimate is subject to change. A formal written quotation may be obtained and all payments for the charges shown on the quotation made within 30 days after the construction plan is approved by BWS. If payments are not received within the 30 day period, the project will be subject to the prevailing rates.

DWS FLOW REQUIREMENTS
PREMISE ID#: (NEW)
METER NUMBER (M/N): (NEW)

DESCRIPTION	FIXTURE UNITS (FU)	GALLONS PER MINUTE (GPM)	GALLONS PER DAY (GPD)
A. PROPOSED DOMESTIC:	xx	xx	xx
B. PROPOSED IRRIGATION:	xx	xx	xx
C. TOTAL PROPOSED:	xx	xx	xx

*Irrigation through hose bibbs occurs during peak hours

LEGEND:

- 40 — EXISTING INDEX CONTOUR (5–FT)
- EXISTING INTERMEDIATE CONTOUR (1–FT)
- 40 — FINISH INDEX CONTOUR (5–FT)
- FINISH INTERMEDIATE CONTOUR (1–FT)
- PROPERTY LINE
- LIMITS OF GRADING
- PROPOSED WATERLINE

SCALE: 1"=20' — 0, 20', 40', 80' — SCALE / FEET

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

DIANE Y. KODAMA
LICENSED PROFESSIONAL ENGINEER
No. 8888-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/14

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS
S. KOHALA, ISLAND OF HAWAII, HAWAII

SITE & UTILITY PLAN

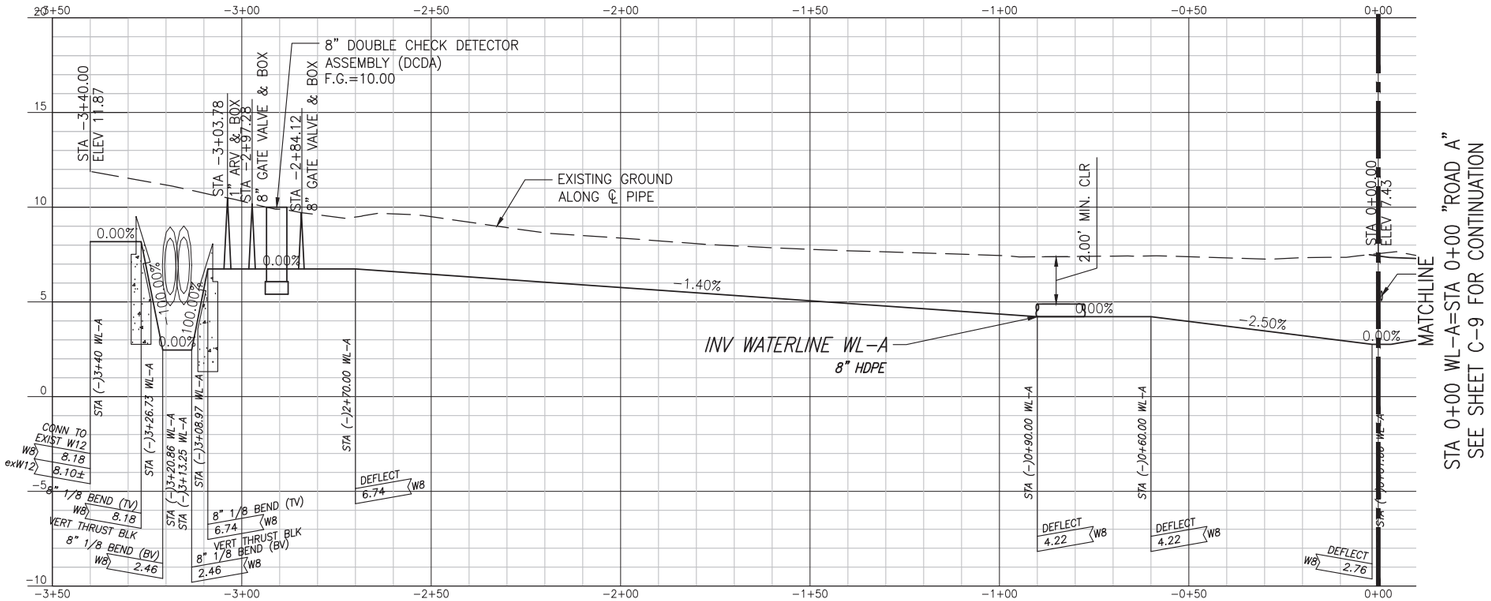
DESIGNED:	TS	SUBMITTED:	02/04/13
DRAWN:	TS	DATE:	02/04/13
CHECKED:	DYK/MXD	SCALE:	AS NOTED

APPROVED: _____ CHIEF ENGINEER _____ DATE

DRAWING NO. C-7

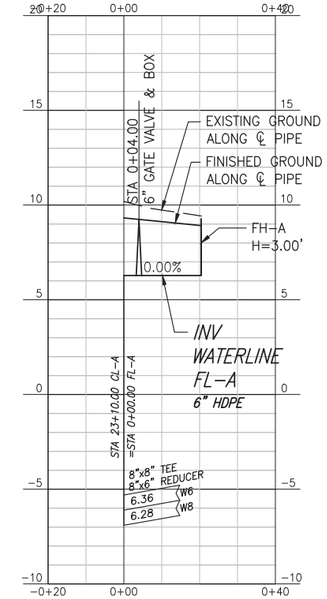
JOB NO. B13CH73A

PATH/FILENAME: P:\USGS\Civil\Views\60338348 DLNR Kawaihae Harbor - Road and Waterline\400 Design\Drawings\WATERLINE WL-A PLAN & PROFILE.dwg PLOT DATE: November 04, 2013 @ 08:52:55 am
PATH/FILENAME: P:\USGS\Civil\Views\60338348 DLNR Kawaihae Harbor - Road and Waterline\400 Design\Drawings\WATERLINE WL-A PLAN & PROFILE.dwg UPDATE: October 31, 2013 @ 03:13:12 pm



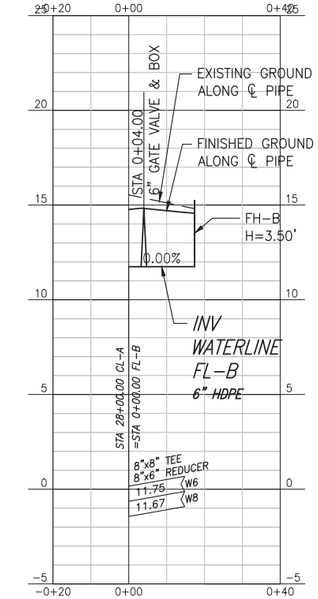
PROFILE – WATERLINE "WL-A" (STA (-)3+40.00 TO STA 0+00.00)

SCALE: 1" = 20' HORIZ
1" = 5' VERT



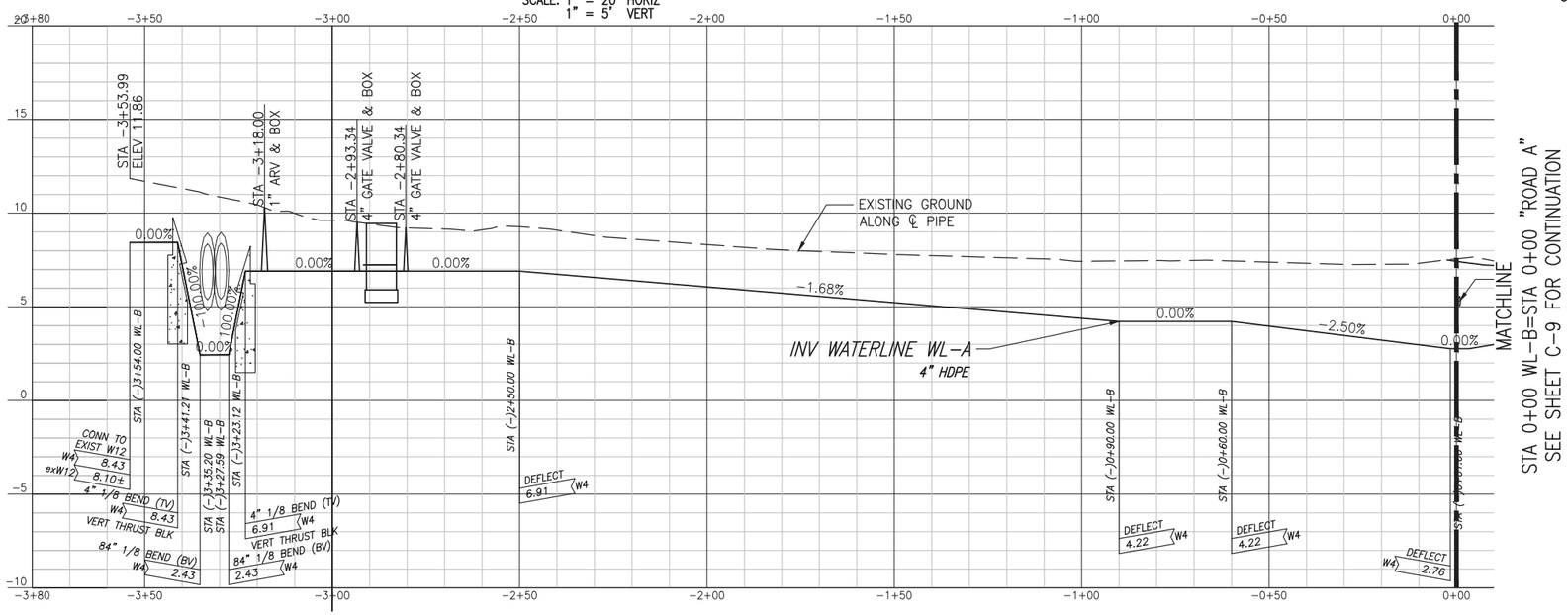
PROFILE – WATERLINE "FL-A"

SCALE: 1" = 20' HORIZ
1" = 5' VERT



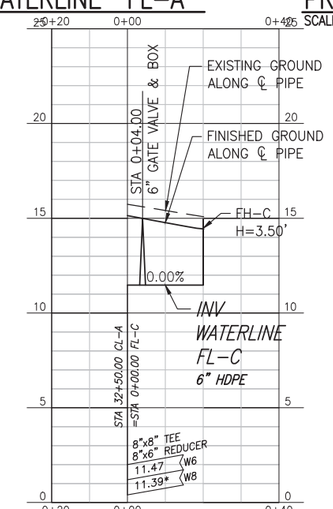
PROFILE – WATERLINE "FL-B"

SCALE: 1" = 20' HORIZ
1" = 5' VERT



PROFILE – WATERLINE "WL-B" (STA (-)3+54.00 TO STA 0+00.00)

SCALE: 1" = 20' HORIZ
1" = 5' VERT



PROFILE – WATERLINE "FL-B"

SCALE: 1" = 20' HORIZ
1" = 5' VERT

SCALE: 1"=5' 0 5' 10' 20' SCALE FEET

SCALE: 1"=20' 0 20' 40' 80' SCALE FEET

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

DIANE Y. KODAMA LICENSED PROFESSIONAL ENGINEER No. 8888-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/14

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS
S. KOHALA, ISLAND OF HAWAII, HAWAII

UTILITY PROFILE

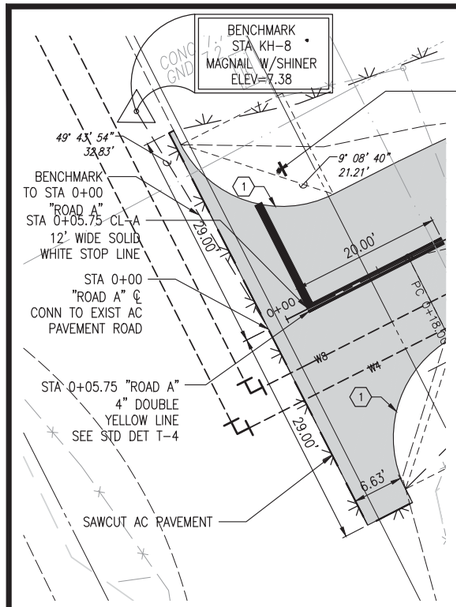
DESIGNED:	TS	SUBMITTED:	02/04/13
DRAWN:	TS	DATE:	02/04/13
CHECKED:	DYK/MXD	SCALE:	AS NOTED

APPROVED: CHIEF ENGINEER DATE

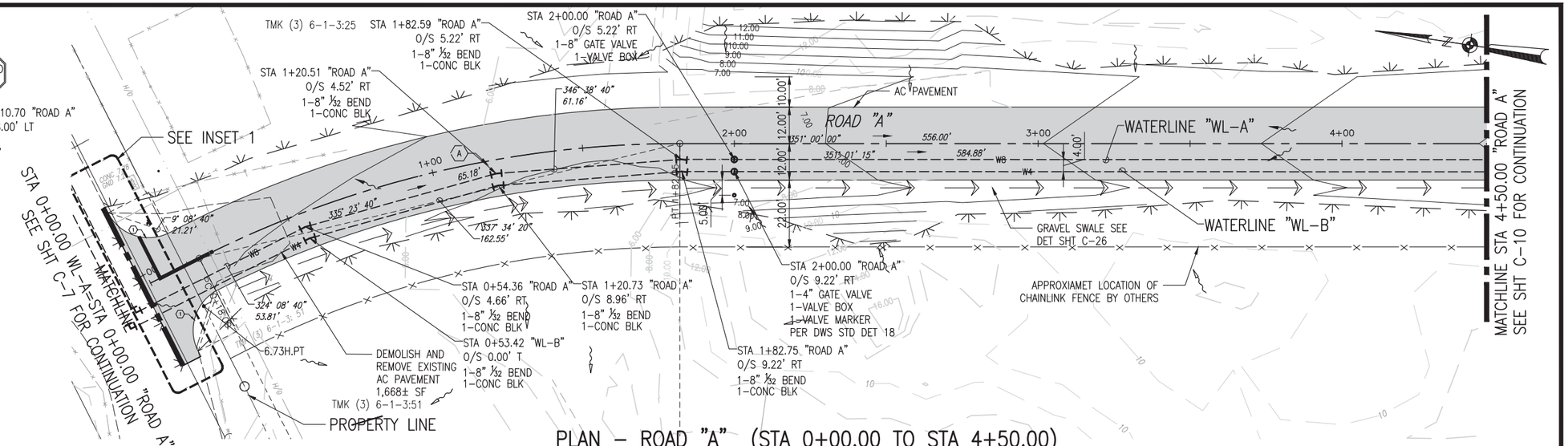
DRAWING NO. C-8

JOB NO. B13CH73A

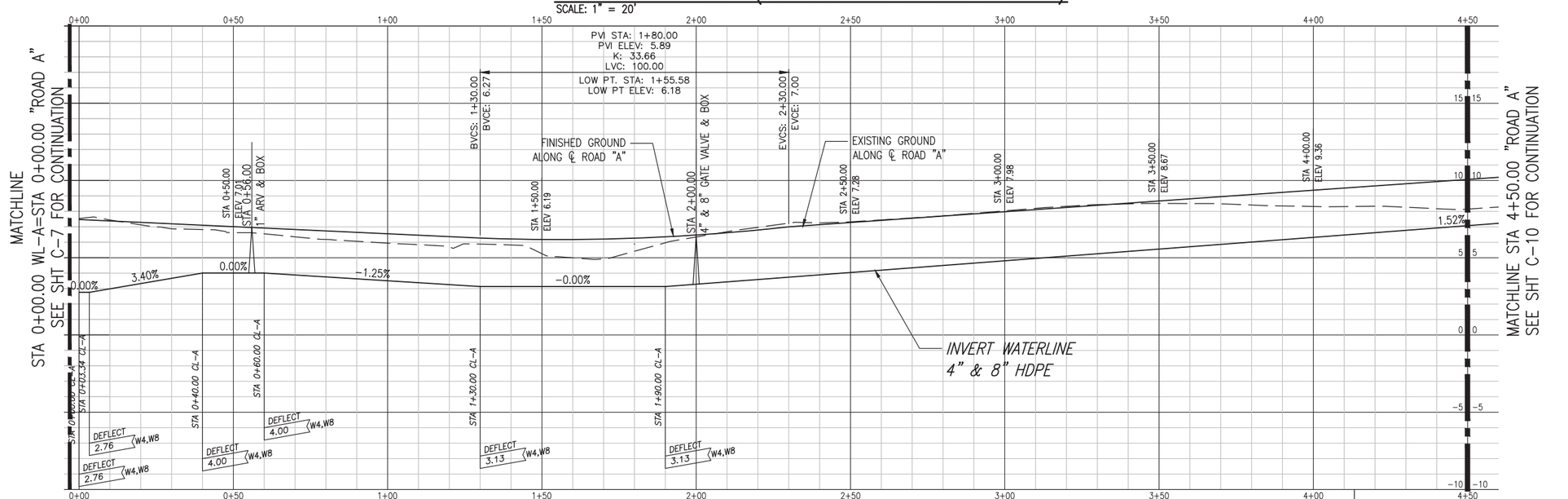
PATH/FILENAME: P:\USGS\Civil\Viewer\60238348 DLNR Kawaihae Harbor - Road and Waterline\400 Design\Drawings\WATERLINE WL-A PLAN & PROFILE.dgn PLOT DATE: November 04, 2013 @ 08:53:18 am
PATH/FILENAME: P:\USGS\Civil\Viewer\60238348 DLNR Kawaihae Harbor - Road and Waterline\400 Design\Drawings\WATERLINE WL-B PLAN & PROFILE.dgn PLOT DATE: October 31, 2013 @ 03:13:12 pm



INSET 1
SCALE: 1" = 10'



PLAN – ROAD "A" (STA 0+00.00 TO STA 4+50.00)
SCALE: 1" = 20'



PROFILE – ROAD "A" (STA 0+00.00 TO STA 4+50.00)
SCALE: 1" = 20' HORIZ
1" = 5' VERT

BASELINE CURVE DATA:

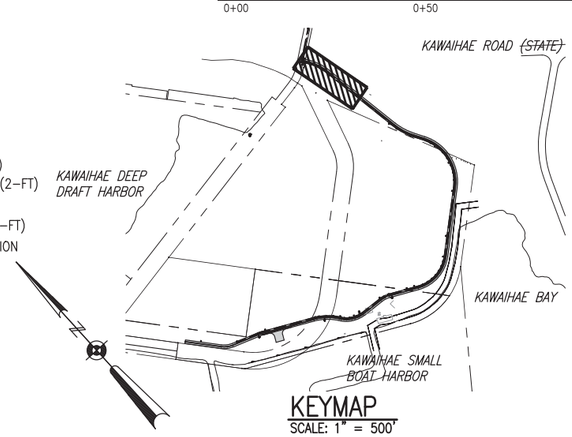
Ⓐ	
Δ	24°47'32"
Δ/2	12°23'46"
R	400.00
T	87.92
C	171.74
LC	173.08

CURVE DATA:

①	
Δ	90°00'00"
Δ/2	45°00'00"
R	15.00
T	15.00
C	21.21
LC	23.56

LEGEND:

- 40 — EXISTING INDEX CONTOUR (10-FT)
- EXISTING INTERMEDIATE CONTOUR (2-FT)
- 40 — FINISH INDEX CONTOUR (5-FT)
- FINISH INTERMEDIATE CONTOUR (1-FT)
- PROPOSED SURFACE FLOW DIRECTION
- PROPERTY LINE
- LIMITS OF GRADING
- PROPOSED WATERLINE



KEYMAP
SCALE: 1" = 500'

EARTHWORK QUANTITIES
(FOR PERMIT PURPOSES ONLY)

EXCAVATION	8,180 CY
EMBANKMENT	1,959 CY
AREA	4.38 ACRES

SCALE: 1"=500' — 0, 500', 1000', 2000' SCALE FEET
SCALE: 1"=20' — 0, 20', 40', 80' SCALE FEET
SCALE: 1"=5' — 0, 5', 10', 20' SCALE FEET

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

DIANE Y. KODAMA
LICENSED PROFESSIONAL ENGINEER
No. 8888-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/14

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

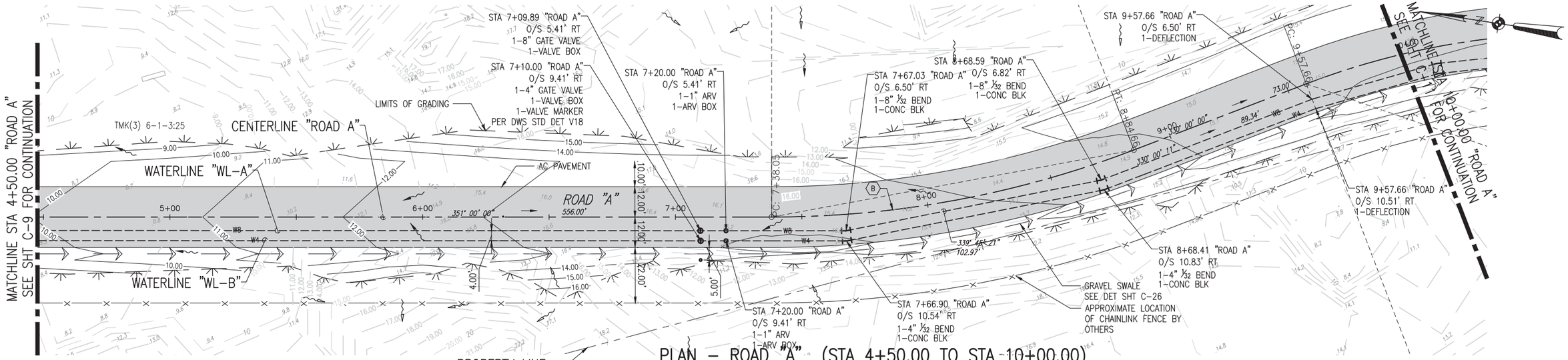
KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS
S. KOHALA, ISLAND OF HAWAII, HAWAII

ROAD A PLAN & PROFILE (STA 0+00.00 TO 4+50.00)

DESIGNED:	TS	SUBMITTED:	02/04/13
DRAWN:	TS	DATE:	02/04/13
CHECKED:	DYK/MXD	SCALE:	AS NOTED
APPROVED:			

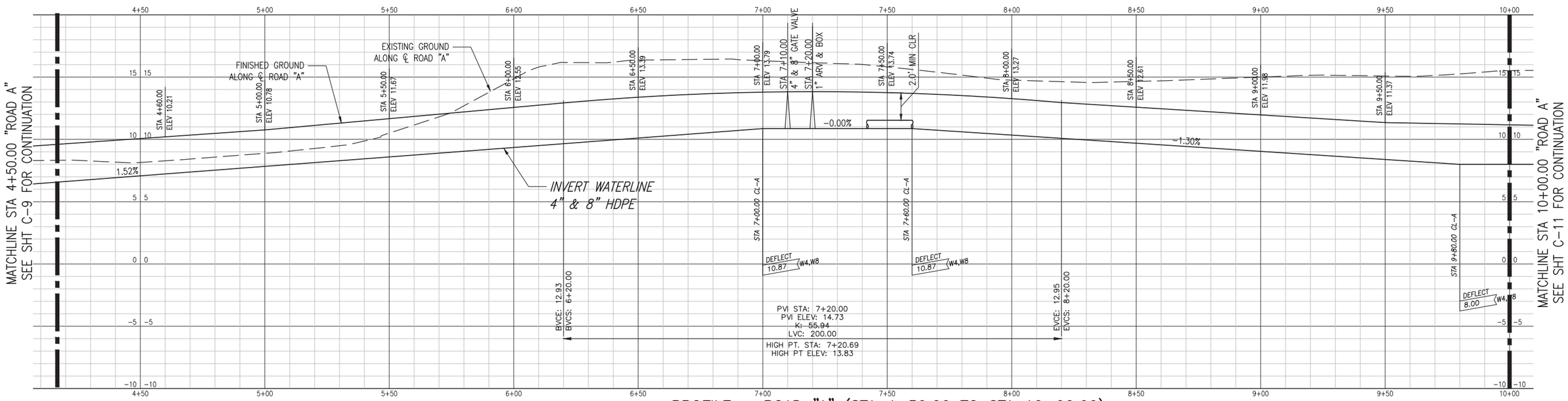
CHIEF ENGINEER — DATE

DRAWING NO. C-9



PLAN – ROAD "A" (STA 4+50.00 TO STA 10+00.00)

SCALE: 1" = 20'

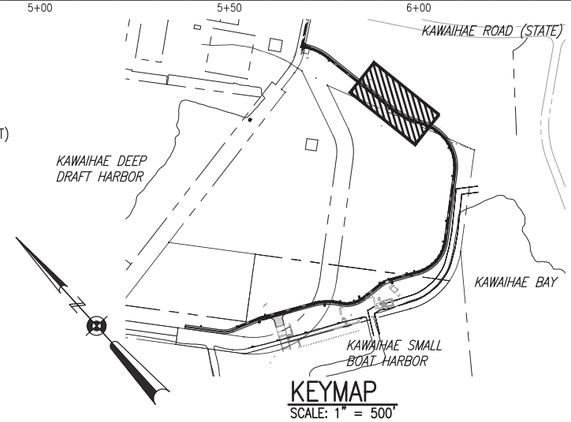


PROFILE – ROAD "A" (STA 4+50.00 TO STA 10+00.00)

SCALE: 1" = 20' HORIZ
1" = 5' VERT

LEGEND:

- EXISTING INDEX CONTOUR (10-FT)
- EXISTING INTERMEDIATE CONTOUR (2-FT)
- FINISH INDEX CONTOUR (5-FT)
- FINISH INTERMEDIATE CONTOUR (1-FT)
- PROPOSED SURFACE FLOW DIRECTION
- PROPERTY LINE
- LIMITS OF GRADING
- PROPOSED WATERLINE



KEYMAP

SCALE: 1" = 500'

BASELINE CURVE DATA:

(B)

Δ	21°00'00"
½	10°30'00"
R	400.00
T	74.14
C	145.79
LC	146.61

SCALE: 1"=500' 0 500' 1000' 2000' SCALE FEET

SCALE: 1"=20' 0 20' 40' 80' SCALE FEET

SCALE: 1"=5' 0 5' 10' 20' SCALE FEET

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

DIANE Y. KODAMA
LICENSED PROFESSIONAL ENGINEER
No. 8888-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/14

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS
S. KOHALA, ISLAND OF HAWAII, HAWAII

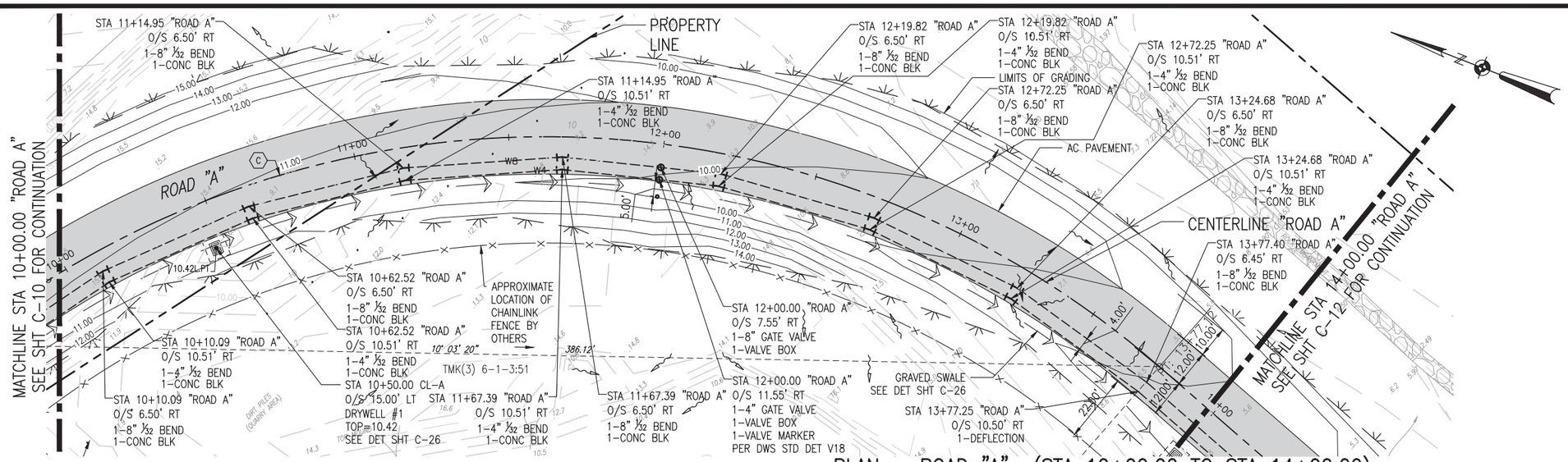
ROAD A PLAN & PROFILE (STA 4+50.00 TO 10+00.00)

DESIGNED:	TS	SUBMITTED:	02/04/13
DRAWN:	TS	DATE:	02/04/13
CHECKED:	DYK/MXD	SCALE:	AS NOTED

APPROVED:

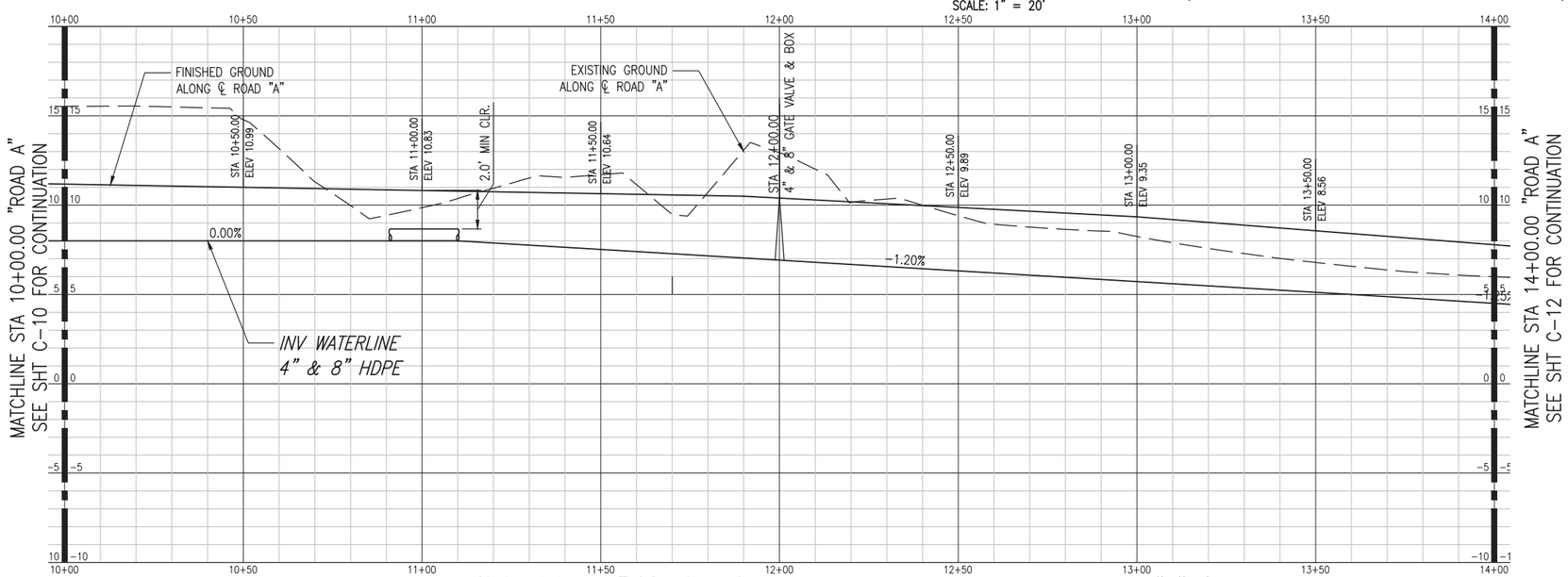
CHIEF ENGINEER DATE

DRAWING NO. C-10



PLAN – ROAD "A" (STA 10+00.00 TO STA 14+00.00)

SCALE: 1" = 20'

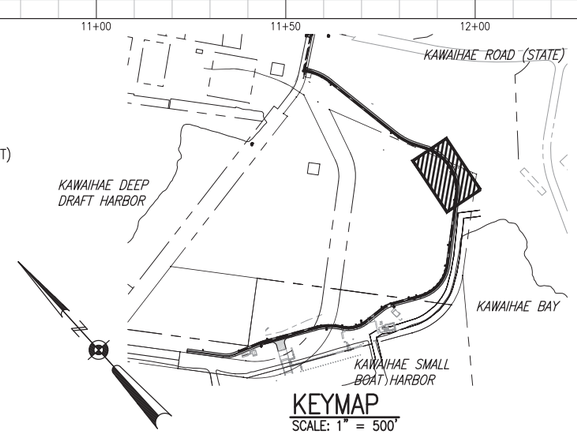


PROFILE – ROAD "A" (STA 10+00.00 TO STA 14+00.00)

SCALE: 1" = 20' HORIZ
1" = 5' VERT

LEGEND:

- EXISTING INDEX CONTOUR (10-FT)
- EXISTING INTERMEDIATE CONTOUR (2-FT)
- FINISH INDEX CONTOUR (5-FT)
- FINISH INTERMEDIATE CONTOUR (1-FT)
- PROPOSED SURFACE FLOW DIRECTION
- PROPERTY LINE
- LIMITS OF GRADING
- PROPOSED WATERLINE



KEYMAP

SCALE: 1" = 500'

BASELINE CURVE DATA:

	Ⓑ		Ⓒ
Δ	21°00'00"	Δ	78°00'00"
Δ/2	10°30'00"	Δ/2	39°00'00"
R	400.00	R	300.00
T	74.14	T	242.94
C	145.79	C	377.59
LC	146.61	LC	408.41

SCALE: 1"=500' — 0, 500', 1000', 2000' — SCALE / FEET

SCALE: 1"=20' — 0, 20', 40', 80' — SCALE / FEET

SCALE: 1"=5' — 0, 5', 10', 20' — SCALE / FEET

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

DIANE Y. KODAMA
LICENSED PROFESSIONAL ENGINEER
No. 8888-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/14

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS
S. KOHALA, ISLAND OF HAWAII, HAWAII

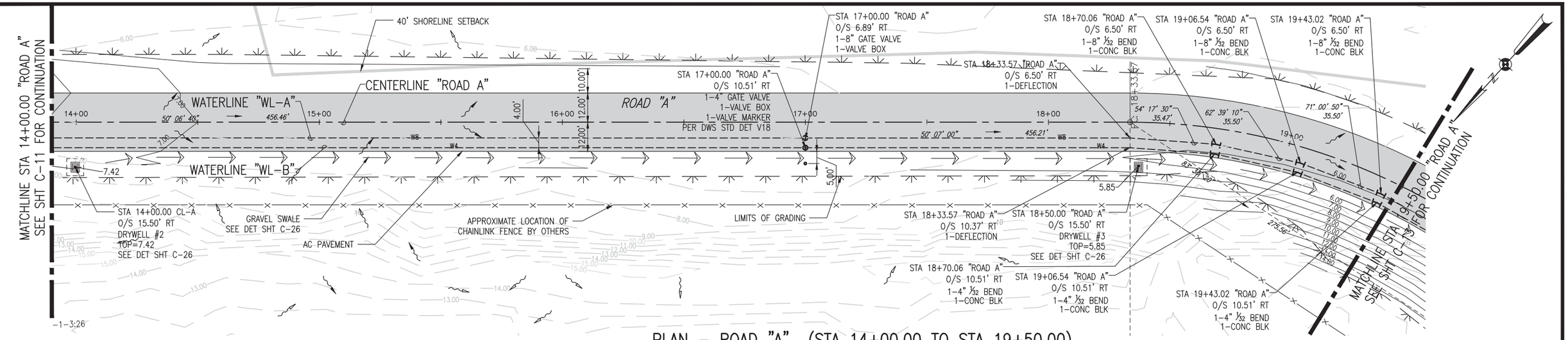
ROAD A PLAN & PROFILE (STA 10+00.00 TO 14+00.00)

DESIGNED:	TS	SUBMITTED:	02/04/13
DRAWN:	TS	DATE:	02/04/13
CHECKED:	DYK/MXD	SCALE:	AS NOTED

APPROVED:

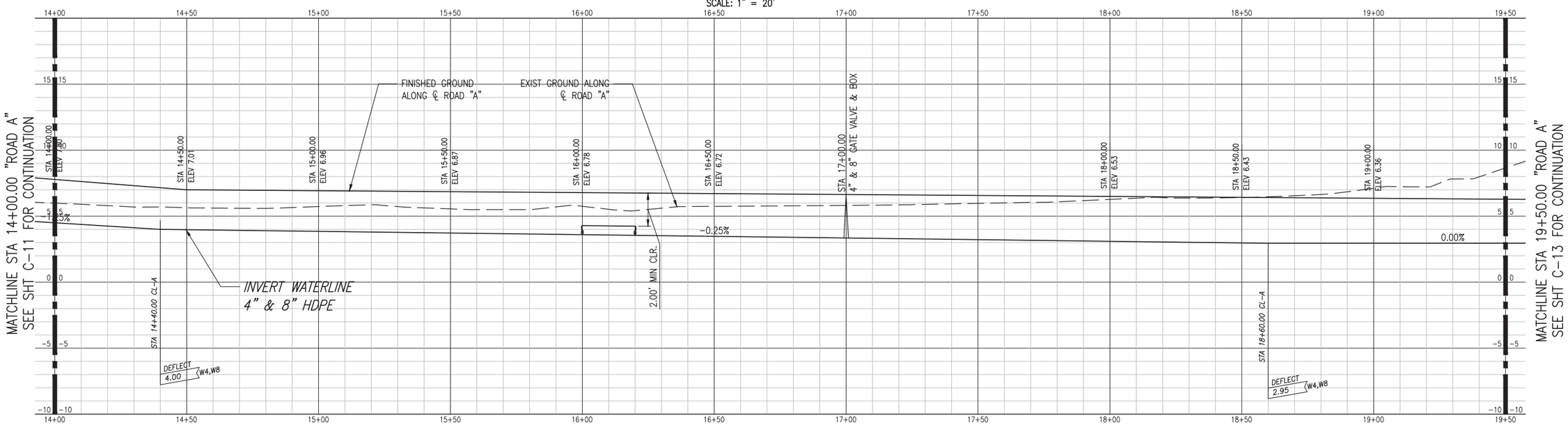
CHIEF ENGINEER — DATE

DRAWING NO. C-11



PLAN – ROAD "A" (STA 14+00.00 TO STA 19+50.00)

SCALE: 1" = 20'

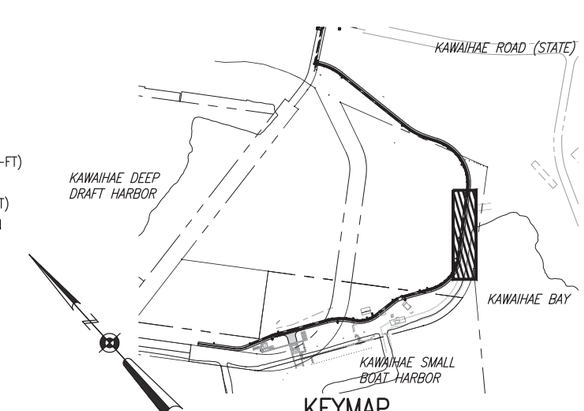


PROFILE – ROAD "A" (STA 14+00.00 TO STA 19+50.00)

SCALE: 1" = 20' HORIZ
1" = 5' VERT

LEGEND:

- EXISTING INDEX CONTOUR (10-FT)
- EXISTING INTERMEDIATE CONTOUR (2-FT)
- FINISH INDEX CONTOUR (5-FT)
- FINISH INTERMEDIATE CONTOUR (1-FT)
- PROPOSED SURFACE FLOW DIRECTION
- PROPERTY LINE
- LIMITS OF GRADING
- PROPOSED WATERLINE



KEYMAP
SCALE: 1" = 500'

BASELINE CURVE DATA:

	(D)
Δ	69°00'00"
Δ/2	34°30'00"
R	300.00
T	206.18
C	339.84
LC	361.28

SCALE: 1"=500' 0 500' 1000' 2000' SCALE FEET

SCALE: 1"=20' 0 20' 40' 80' SCALE FEET

SCALE: 1"=5' 0 5' 10' 20' SCALE FEET

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

DIANE Y. KODAMA
LICENSED PROFESSIONAL ENGINEER
No. 8888-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/14

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

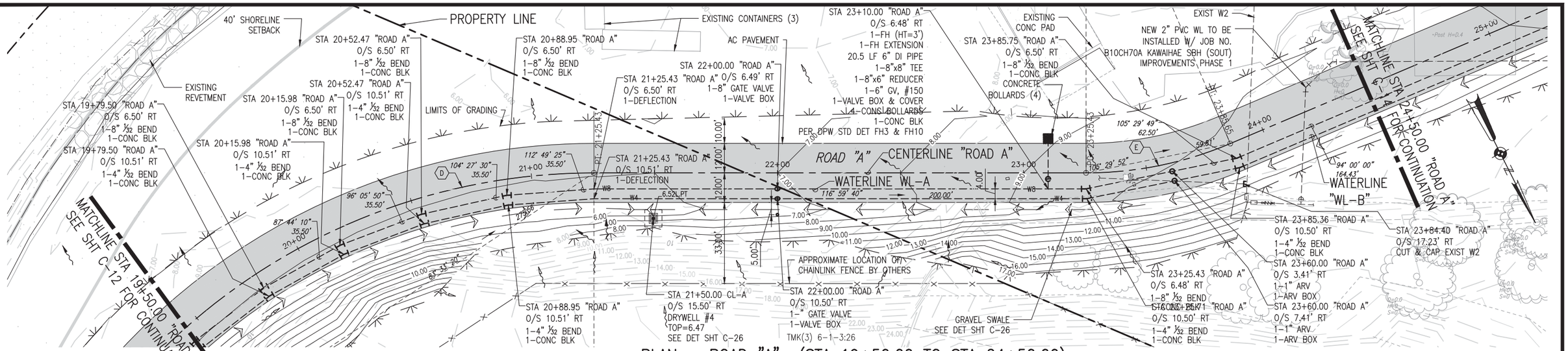
KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS
S. KOHALA, ISLAND OF HAWAII, HAWAII

ROAD A PLAN & PROFILE (STA 14+00.00 TO 19+50.00)

DESIGNED:	TS	SUBMITTED:	02/04/13
DRAWN:	TS	DATE:	02/04/13
CHECKED:	DYK/MXD	SCALE:	AS NOTED

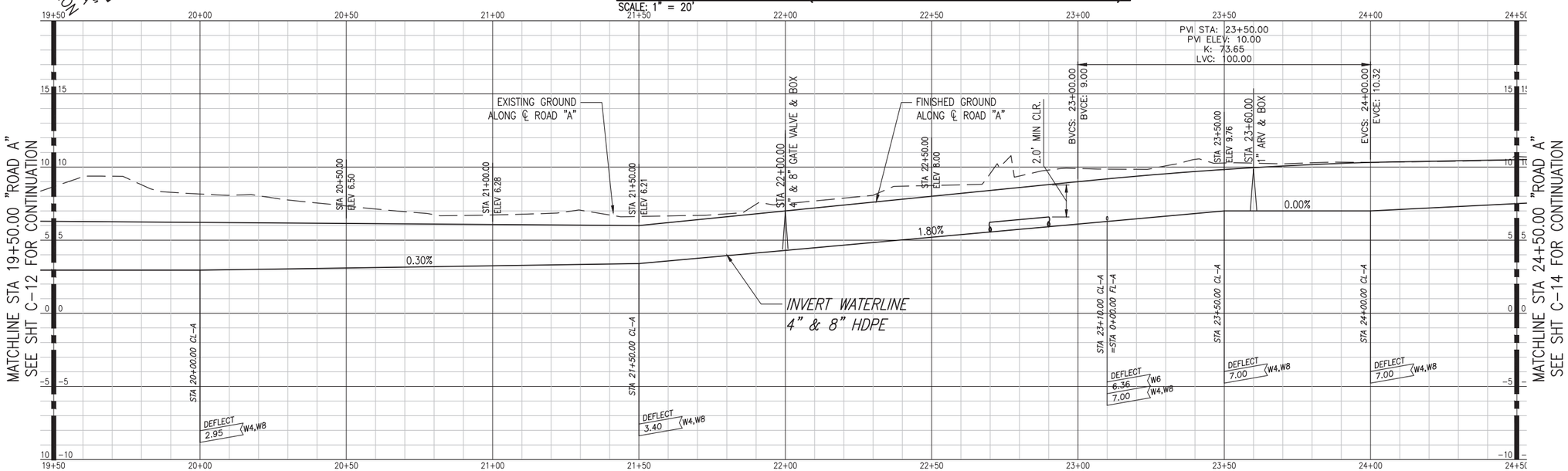
APPROVED:
CHIEF ENGINEER DATE

DRAWING NO. C-12



PLAN – ROAD "A" (STA 19+50.00 TO STA 24+50.00)

SCALE: 1" = 20'

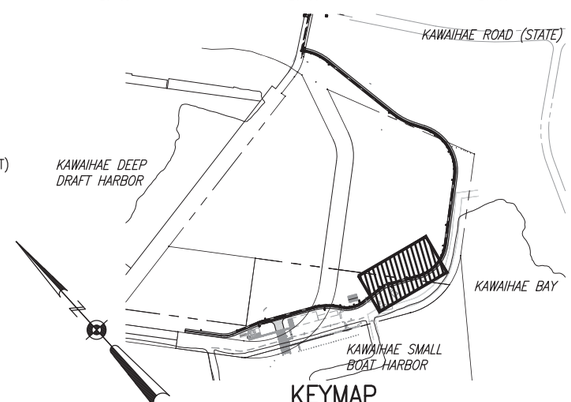


PROFILE – ROAD "A" (STA 19+50.00 TO STA 24+50.00)

SCALE: 1" = 20' HORIZ
1" = 5' VERT

LEGEND:

- EXISTING INDEX CONTOUR (10-FT)
- EXISTING INTERMEDIATE CONTOUR (2-FT)
- FINISH INDEX CONTOUR (5-FT)
- FINISH INTERMEDIATE CONTOUR (1-FT)
- PROPOSED SURFACE FLOW DIRECTION
- PROPERTY LINE
- LIMITS OF GRADING
- PROPOSED WATERLINE



KEYMAP

SCALE: 1" = 500'

BASELINE CURVE DATA:

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C	339.84	C	63.80
LC	361.28	LC	64.23

SCALE: 1"=500' 0 500' 1000' 2000' SCALE FEET

SCALE: 1"=20' 0 20' 40' 80' SCALE FEET

SCALE: 1"=5' 0 5' 10' 20' SCALE FEET

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

DIANE Y. KODAMA LICENSED PROFESSIONAL ENGINEER No. 8888-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/14

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS
S. KOHALA, ISLAND OF HAWAII, HAWAII

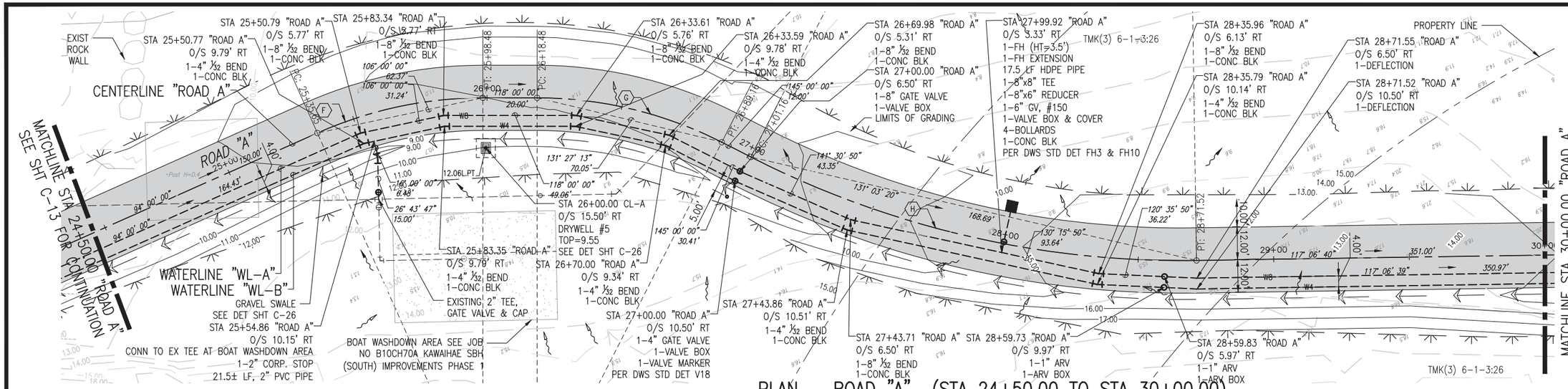
ROAD A PLAN & PROFILE (STA 19+50.00 TO 24+50.00)

DESIGNED:	TS	SUBMITTED:	02/04/13
DRAWN:	TS	DATE:	02/04/13
CHECKED:	DYK/MXD	SCALE:	AS NOTED

APPROVED: CHIEF ENGINEER DATE

DRAWING NO. C-13

JOB NO. B13CH73A



PLAN – ROAD "A" (STA 24+50.00 TO STA 30+00.00)

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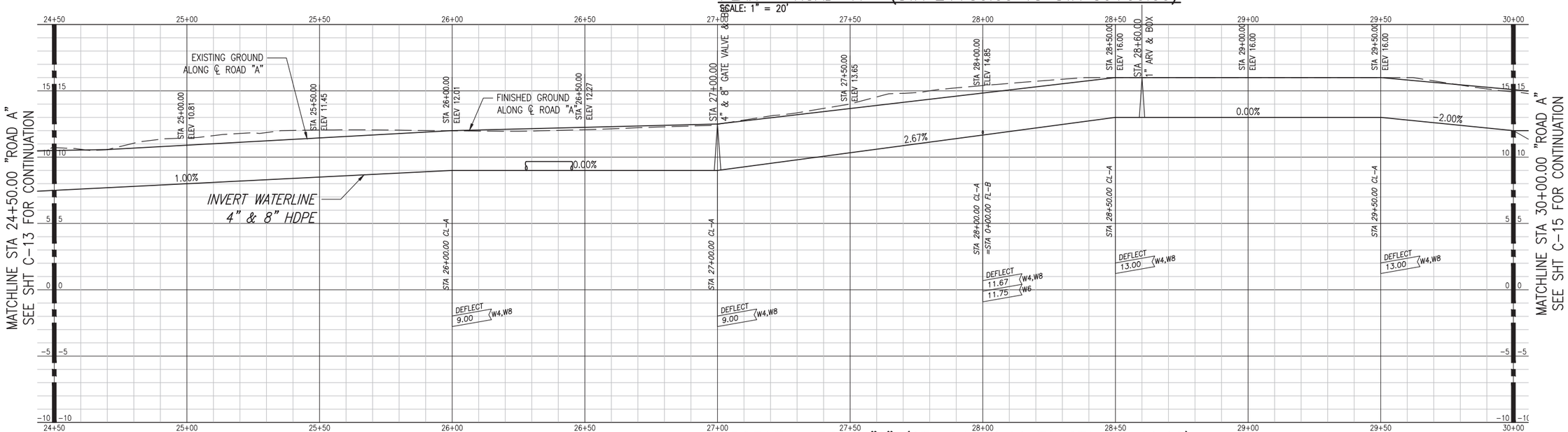
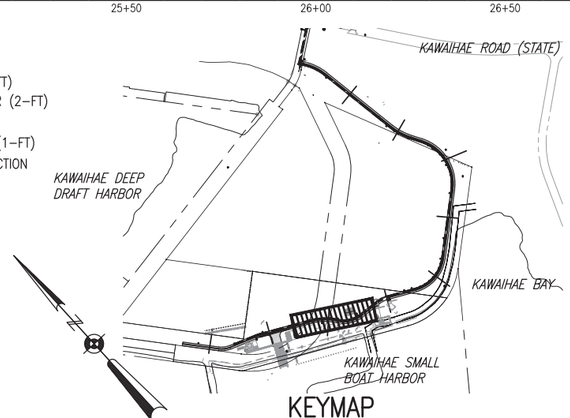


PROFILE – ROAD "A" (STA 24+50.00 TO STA 30+00.00)

SCALE: 1" = 20' HORIZ
1" = 5' VERT

LEGEND:

- EXISTING INDEX CONTOUR (10-FT)
- EXISTING INTERMEDIATE CONTOUR (2-FT)
- FINISH INDEX CONTOUR (5-FT)
- FINISH INTERMEDIATE CONTOUR (1-FT)
- PROPOSED SURFACE FLOW DIRECTION
- PROPERTY LINE
- LIMITS OF GRADING
- PROPOSED WATERLINE



KEYMAP

SCALE: 1" = 500'

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T	29.76	T	36.01
C	58.22	C	70.03
LC	58.64	LC	70.69

Ⓗ	
Δ	27°53'20"
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T	86.90
C	168.69
LC	170.36

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SCALE: 1"=20' 0 20' 40' 80' SCALE FEET

SCALE: 1"=5' 0 5' 10' 20' SCALE FEET

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

DIANE Y. KODAMA LICENSED PROFESSIONAL ENGINEER No. 8888-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/14

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS
S. KOHALA, ISLAND OF HAWAII, HAWAII

ROAD A PLAN & PROFILE (STA 24+50.00 TO 30+00.00)

DESIGNED:	TS	SUBMITTED:	02/04/13
DRAWN:	TS	DATE:	02/04/13
CHECKED:	DYK/MXD	SCALE:	AS NOTED

APPROVED:

CHIEF ENGINEER DATE

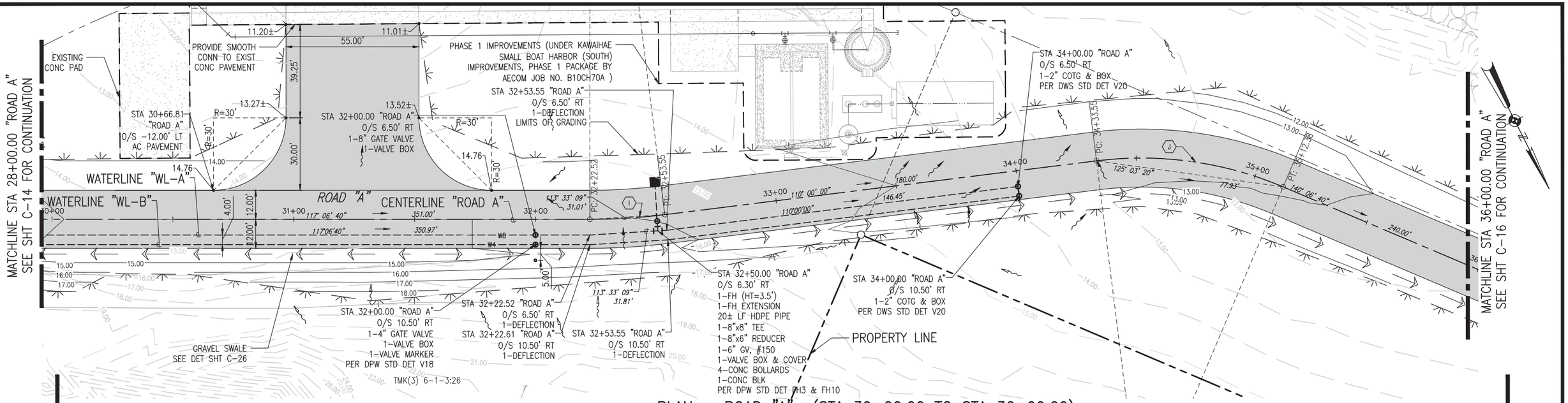
DRAWING NO. C-14

JOB NO. B13CH73A

SHT. 15 OF 28

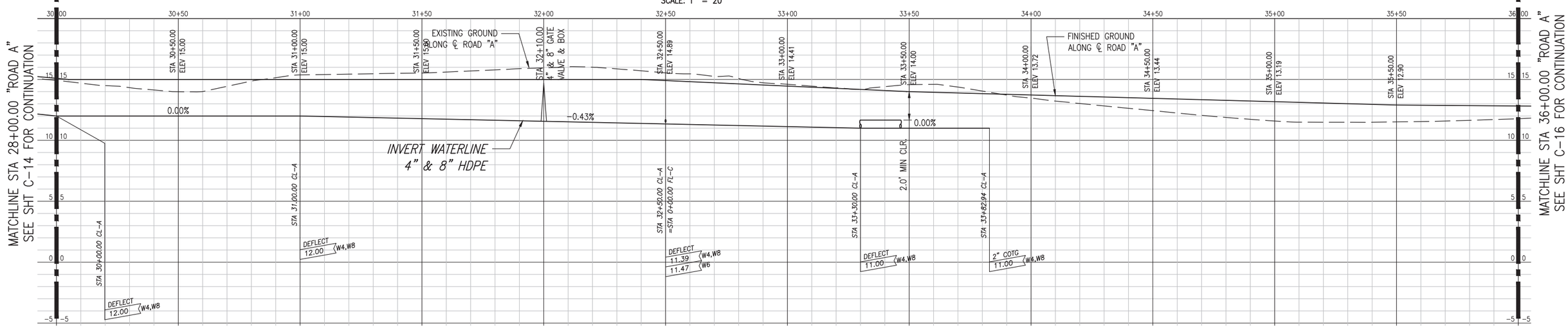
PLOT DATE: November 04, 2013 @ 08:57:31 am

PATH/FILENAME: P:\JOBS\Civil\Vinell\B0238348 DLNR Kawaihae Harbor - Road and Waterline\400 Design\Drawings\ROAD A PLAN & PROFILE (STA 24+50.00 TO 30+00.00).dwg



PLAN – ROAD "A" (STA 30+00.00 TO STA 36+00.00)

SCALE: 1" = 20'

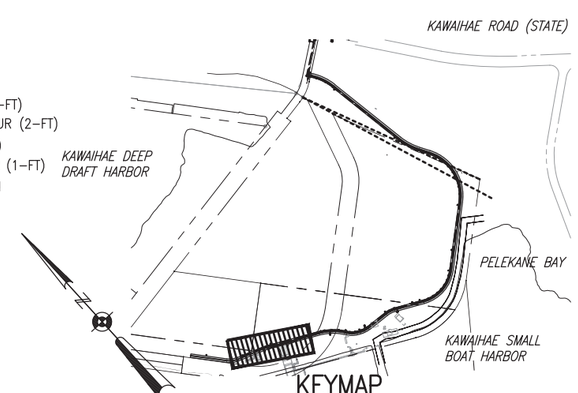


PROFILE – ROAD "A" (STA 28+00.00 TO STA 36+00.00)

SCALE: 1" = 20' HORIZ
1" = 5' VERT

LEGEND:

- EXISTING INDEX CONTOUR (10-FT)
- EXISTING INTERMEDIATE CONTOUR (2-FT)
- FINISH INDEX CONTOUR (5-FT)
- FINISH INTERMEDIATE CONTOUR (1-FT)
- NEW SURFACE FLOW DIRECTION
- PROPERTY LINE
- LIMITS OF GRADING
- PROPOSED WATERLINE



KEYMAP
SCALE: 1" = 500'

BASELINE CURVE DATA:

	(I)		(J)
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Δ/2	03°33'20"	Δ/2	15°03'20"
R	250.00	R	150.00
T	15.53	T	40.35
C	31.01	C	77.93
LC	31.03	LC	78.83

SCALE: 1"=500' 0 500' 1000' 2000' SCALE FEET

SCALE: 1"=20' 0 20' 40' 80' SCALE FEET

SCALE: 1"=5' 0 5' 10' 20' SCALE FEET

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

DIANE Y. KODAMA LICENSED PROFESSIONAL ENGINEER No. 8888-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/14

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS
S. KOHALA, ISLAND OF HAWAII, HAWAII

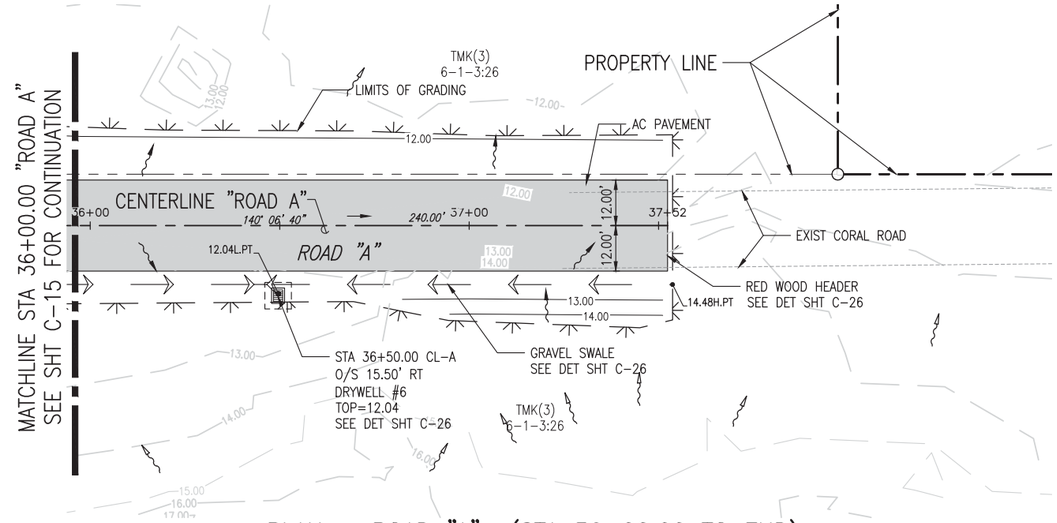
ROAD A PLAN & PROFILE (STA 30+00.00 TO 36+00.00)

DESIGNED:	TS	SUBMITTED:	02/04/13
DRAWN:	TS	DATE:	02/04/13
CHECKED:	DYK/MXD	SCALE:	AS NOTED

APPROVED:

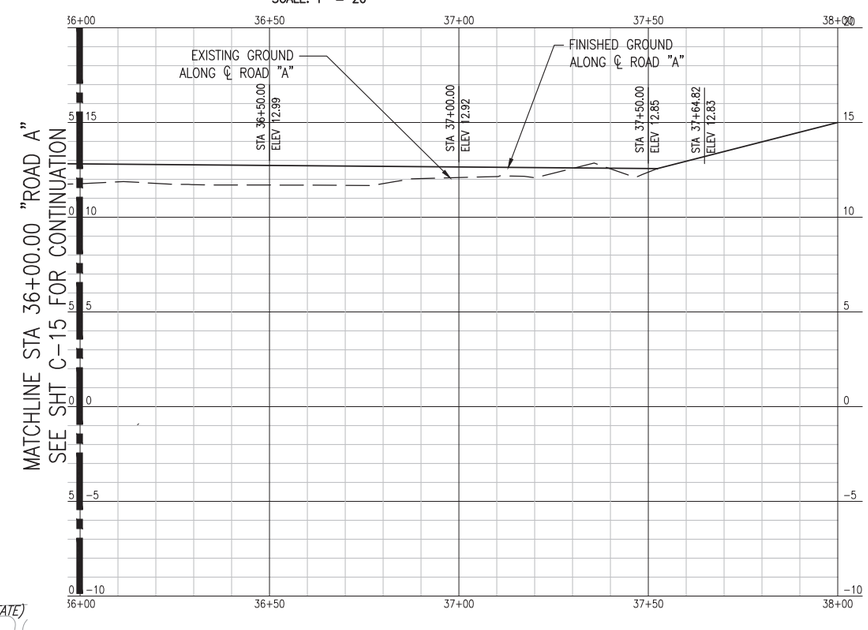
CHIEF ENGINEER DATE

DRAWING NO. C-15



PLAN – ROAD "A" (STA 36+00.00 TO END)

SCALE: 1" = 20'

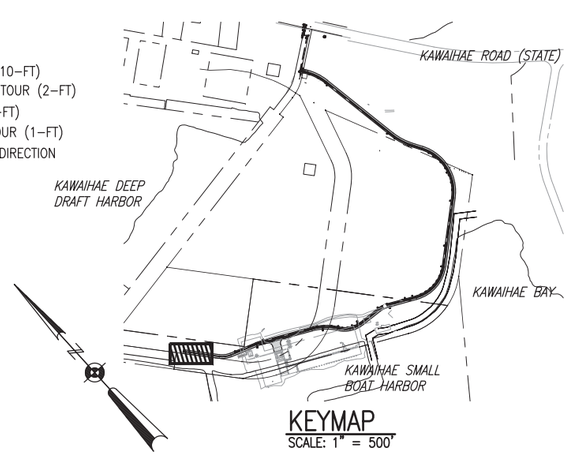


PROFILE – ROAD "A" (STA 36+00.00 TO END)

SCALE: 1" = 20' HORIZ
1" = 5' VERT

LEGEND:

- EXISTING INDEX CONTOUR (10-FT)
- EXISTING INTERMEDIATE CONTOUR (2-FT)
- FINISH INDEX CONTOUR (5-FT)
- FINISH INTERMEDIATE CONTOUR (1-FT)
- PROPOSED SURFACE FLOW DIRECTION
- PROPERTY LINE
- LIMITS OF GRADING
- PROPOSED WATERLINE



KEYMAP

SCALE: 1" = 500'

SCALE: 1"=500' — 0, 500', 1000', 2000' SCALE FEET

SCALE: 1"=20' — 0, 20', 40', 80' SCALE FEET

SCALE: 1"=5' — 0, 5', 10', 20' SCALE FEET

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

DIANE Y. KODAMA
LICENSED PROFESSIONAL ENGINEER
No. 8888-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/14

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

KAWAIHAE SMALL BOAT HARBOR (SOUTH) ROADWAY AND WATER SYSTEM IMPROVEMENTS
S. KOHALA, ISLAND OF HAWAII, HAWAII

ROAD A PLAN & PROFILE (STA 36+00.00 TO END)

DESIGNED:	TS	SUBMITTED:	02/04/13
DRAWN:	TS	DATE:	02/04/13
CHECKED:	DYK/MXD	SCALE:	AS NOTED

APPROVED:

CHIEF ENGINEER — DATE

DRAWING NO. C-16

PATH/FILENAME: P:\USR\Civil\Hawaii\60283848 DLNR Kawaihae Harbor - Road and Waterline\400 Design\Drawings\ROAD A PLAN & PROFILE (STA 36+00.00 TO END).dwg PLOT DATE: November 04, 2013 @ 08:58:47 am

JOB NO. B13CH73A

Appendix B
Engineering Report (to be provided)

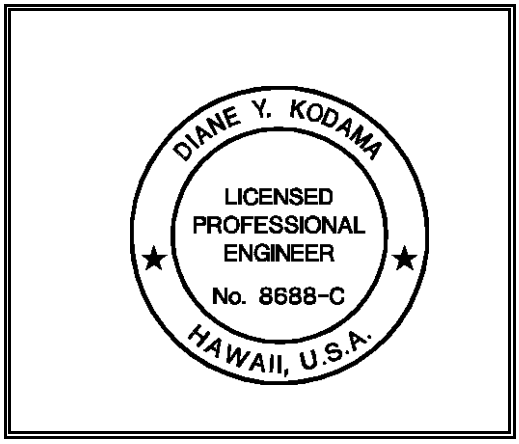
Appendix C
Erosion Control Report Dated January 2012

Kawaihae Harbor, South Basin, Hawai‘i Roadway and Water System Improvements Kawaihae, Island of Hawai‘i, Hawai‘i

Erosion Control Report

TMK: (3rd Div) 6-1-003:025(Por), 026(Por)

January 2012



(Expires April 30, 2012)

This work was prepared by me or under my direct supervision.

Signature (***Diane Y. Kodama***) Date
AECOM Technical Services, Inc.

Erosion Control Report

Administrative Requirements

Kawaihae Harbor, South Basin, Hawaii Roadway and Water System Improvements	**State of Hawaii**	**AECOM**
Name of Development	Developer	Engineer
Kawaihae, Island of Hawai‘i, Hawai‘i	**(3) 6-1-003: 025(Por), 026(Por)**	**Total Site Area: 4.96** **Approximate Graded Area: 5.43**
Location	TMK Number	Area (acres)
Troy Samura	**January 2012**	
Prepared By	Date	
Diane Kodama	**January 2012**	**8688-C**
Checked By	Date	License Number
State of Hawai‘i Department of Land and Natural Resources Division of Boating and Ocean Recreation	**(808) 587-0122**	**333 Queen St. Suite 300 Honolulu HI 96813**
Owner	Phone Number	Mailing Address
Costco Wholesale Corporation		**999 Lake Drive Issaquah, Washington 98207**
Developer	Phone Number	Mailing Address
AECOM Pacific, Inc.	**(808) 521-3051**	**1001 Bishop Street, Suite 1600 Honolulu, Hawai‘i 96813**
Preparer	Phone Number	Mailing Address
To be determined.	***To be determined.***	***To be determined.***
Contractor	Phone Number	Mailing Address

Introduction

The Kawaihae Harbor, South Basin project is located along Highway 270 near mile marker #3 in Kawaihae. The site is approximately 4.96-acres and is described as State of Hawaii, Third taxation Division, Tax Map Key (TMK) Parcel 6-1-003:025(Por), 026(Por).

The proposed Roadway and Water System Improvements will include paving an existing gravel road and the installation of a waterline with two new fire hydrants.

Existing Site Topography

The project site is located at Kawaihae Bay. The land in the area is mildly hilly with ground elevation ranging from approximately 6.5 ft to 20 ft above mllw.

Soils

According to the United States Department of Agriculture, Natural Resources Conservation Service's Web Soil Survey, the soil at the project site consists of Fill land with slopes of 0 to 6 percent (soil classification FL). In a representative profile of Fill land, the surface layer is silty clay loam that extends to 12 inches deep. The subsoil ranges from 12 to 60 inches in depth and consists of silty clay loam. The drainage class is well drained and the frequency of ponding is none while flooding may occur. The depth of the water table is over 80 inches.

Erosion Hazards

According to the August 1972 publication *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii* (Ref 4) by the United States Department of Agriculture, Soil Conservation Service, there is medium runoff with a slight erosion hazard.

Rainfall

According to the Flood Insurance Rate Maps, the project site is classified as Zone X, outside of 0.2% annual chance of flooding.

Proposed Site Improvements

Proposed site improvements for the site include construction of a new paved driveway and the installation of a new waterline with two fire hydrants. The disturbed open space will be grasses and

watered as a requirement for erosion control.

Proposed improvements for the site include construction of a new building addition, fueling facility, culvert cap, new parking area, new paved driveway, new drainage structures and new drainlines that connect to the existing drainage system in the area. The proposed drainage system will dispose of the increase runoff as a result of the increase in impervious area from the proposed project. Disturbed open space will be grassed and watered as required for erosion control. Silt fences and mulching will be used as necessary during construction.

On-Site:

The project site encompasses approximately 0.87-acres of the 9.14-acre area to be graded. The proposed parking on the culvert cap runoff sheet flows in a north westerly direction through the existing parking lot and collected by existing grated drain inlets. The runoff is then discharged into the existing culvert.

Construction Time Frame

On-Site:

a. Notice to Proceed:	December 26, 2011
b. Mobilization, Construction of Detention Pond and Installation of Temporary Best Management Practice Measures (catch basin filters, aggregate ingress/egress, silt fence, etc.)	December 26, 2011 – January 4, 2012
c. Demolition/Clearing and Grubbing :	January 5, 2012 – January 18, 2012
d. Grading and Mulching as Final Grades Are Met :	January 19, 2012 – February 16, 2012
e. Construction of Culvert Cap and Parking Lot:	February 17, 2012 – June 8, 2012
f. Removal of Temporary Best Management Practice Measures and Demobilization:	June 11, 2012 – June 13, 2012
g. Project Completion:	By June 13, 2012

Soil Loss Calculations

Reference

Erosion and Sediment Control, Guide for Hawaii, Soil Conservation Service, US Department of Agriculture, March 1981.

Universal Soil Loss Equation

The Universal Soil Loss Equation (USLE) shown below will be used to determine estimated soil loss rates for the following 4 conditions:

(1) Existing (*non-construction condition*);
(2) Cleared & Grubbed (*construction condition*);
(3) Cleared & Graded (*construction condition*); and,
(4) Finished (*non-construction condition*).

$$A = R \times K \times LS \times C \times P,$$

Where, A = Soil loss rate per unit area (tons/acre/year);
R = Rainfall factor for erosion;
K = Soil erodibility factor;
LS = Combined Slope Length and Gradient factor;
C = Cover and management factor; and
P = Erosion control practice factor.

Computations for Factors

Determination of R

The project site is located near the third mile marker along Highway 270 in Kawaihae, Hawai‘i. The *Average Annual Values of Rainfall Factor, R* map on page 62 yields an approximate R value of **80** for locations in this area. This value will be used for both the existing and finished conditions. The duration for each of the project construction conditions will be less than one year; thus, the rainfall factor R needs to be adjusted. According to the map on page 62, the project area falls in District 15, Mauna Kea. Thus, the table, *Expected Monthly Distribution of Erosive Rainfall, H-3, Western part of Island,* on page 68 was used to determine the corrected R values:

On-Site:

Cleared & Grubbed Condition

Duration: January 5, 2012 – January 18, 2012

Correction Factor for R = (0.130) - (0.020) = 0.110

Corrected R = $\mathbf{R_{Corr,Clear\&Grub}}$ = (0.110) × (160) **= 17.6**

Cleared & Graded Condition

Duration: January 19, 2012 – February 16, 2012

Correction Factor for R = (0.320) - (0.140) = 0.180

Corrected R = $\mathbf{R_{Corr,\ Clear\&Grad}}$ = (0.180) × (160) **= 28.8**

Determination of K

Soil Properties Related to Erosion and Sedimentation for the Island of Hawaii, July 1993 errata, indicates that the Jaucas (soil classification JcC) has a K value of **0.10**.

Determination of LS

On-Site:

Existing Condition (On-Site)

High elevation = **14.53**, Low elevation = **14.46'**, Length of slope = **151.23'**, Slope = **0.08%**

Linear interpolation of L and S values given in Table 16, *Slope-Effect (LS) Values*, on page 53 yields the following LS value:

$\mathbf{LSe_{XIST} = 0.065}$

Cleared & Grubbed Condition (On-Site)

High elevation = **14.60'**, Low elevation = **13.59'**, Length of slope = **145.71'**, Slope = **0.70%**

Linear interpolation of L and S values given in Table 16, *Slope-Effect (LS) Values*, on page 59 yields the following LS value:

$\mathbf{LS_{Clear\&Grub} = 0.124}$

Cleared & Graded Condition (On-Site)

High elevation = **14.55'**, Low elevation = **14.00'**, Length of slope = **150.55'**, Slope = **0.04%**

Linear interpolation of L and S values given in Table 16, *Slope-Effect (LS) Values*, on page 59 yields the following LS values:

$\mathbf{LS_{Clear\&Grad} = 0.065}$

Finished Condition (On-Site)

High elevation = **17.40'**, Low elevation = **14.53'**, Length of slope = **294.35'**, Slope = **0.98%**

Linear interpolation of L and S values given in Table 16, *Slope-Effect (LS) Values*, on page 59 yields the following LS values:

$\mathbf{LS_{Fin} = 0.177}$

Determination of C

On-Site:

Existing Condition

Using values from Table 20, *C Values for Permanent Pasture and Idle Land*, on page 60 as a basis, the C value for the Existing Condition (100% pavement and concrete)) is:

0.003 (grass) × 1.00 (impervious cover) = $\mathbf{C_{Exist} = 0.003.}$

Cleared & Grubbed Condition

From Table 22, *C Values for Ground Cover*, on page 61 as a basis, the C value for bare soil is 1.00. Thus, the C value for the Cleared & Grubbed Condition is:

$\mathbf{C_{Clear\&Grub} = 1.00.}$

Cleared & Graded Condition

From Table 22, *C Values for Ground Cover*, on page 61 as a basis, the C value for bare soil is 1.00. Thus, the C value for the Cleared & Graded Condition is:

$\mathbf{C_{Clear\&Grad} = 1.00.}$

Finished Condition

Using values from Table 22, *C Values for Ground Cover*, on page 61 as a basis, the C value for the Finished Condition (100% pavement and concrete) is:

0.003 (grass) × 1.00 (impervious cover) = $\mathbf{C_{Fin} = 0.003}$.

Determination of P

In *Rules Relating to Soil Erosion Standards and Guidelines* (Ref #7), Table 24, *P Value for Erosion Control Measures (Non-agricultural)* indicates that **P = 0.8** for use of filter inlets and berms, sediment traps, chutes and flumes, containment dikes and any other suitable practice. **P = 1.0** for no erosion control measures. Thus, the P values for the different conditions are:

Existing Condition *(Same P value for Finished Condition for All Sites)*

$\mathbf{P_{xist} = 1.0}$

Cleared & Grubbed Condition *(Same P value for Finished Condition for All Sites)*

$\mathbf{P_{Clear\&Grub} = 1.0}$

Cleared & Graded Condition *(Same P value for Finished Condition for All Sites)*

$\mathbf{P_{Clear\&Grub} = 1.0}$

Finished Condition *(Same P value for Finished Condition for All Sites)*

$\mathbf{P_{Fin} = 1.0}$

Determination of A

ON SITE:

Existing

$$A = R \cdot K \cdot (LS) \cdot C \cdot P$$
$$A = (160) \cdot (0.10) \cdot (0.065) \cdot (0.003) \cdot (1.0)$$
$$A \approx \textbf{0.031 tons/(acre·year)}$$

Cleared and Grubbed Condition

$$A = R \cdot K \cdot (LS) \cdot C \cdot P$$
$$A = (17.6) \cdot (0.10) \cdot (0.124) \cdot (1.0) \cdot (1.0)$$
$$A \approx \textbf{0.218 tons/(acre·year)}$$

Cleared and Graded Condition

$$A = R \cdot K \cdot (LS) \cdot C \cdot P$$
$$A = (28.8) \cdot (0.10) \cdot (0.065) \cdot (1.0) \cdot (1.0)$$
$$A \approx \textbf{0.187 tons/(acre·year)}$$

Finished Condition

$$A = R \cdot K \cdot (LS) \cdot C \cdot P$$
$$A = (160) \cdot (0.10) \cdot (0.177) \cdot (0.003) \cdot (1.0)$$
$$A \approx \textbf{0.009 tons/(acre·year)}$$

Best Management and Erosion Control Design

Temporary erosion control measures include:

a. Provide #2 crushed rock construction entrance for each ingress and egress.

b. Install silt fence for perimeter sediment control.

c. Install silt fence for erosion mitigation due to storm water run-on.

b. Completion of all grading work shall include using water and mulching to prevent dust, erosion, and sedimentation.

Permanent Erosion Control Measures include:

a. Grass all graded areas to be left exposed as finished grades are established.

b. Construct grassed earthen swale above project site to intercept and divert storm water flowing on-site from area above.

Conclusion

This project required calculations of soil loss rates to determine whether the actual rate was less than the allowable. The *Soil Properties Related to Erosion and Sedimentation for the Islands of Kauai, Oahu, Maui, Molokai, and Lanai* table, errata July 1993 (Ref #5), indicates that the allowable soil loss rate for the area encompassing the project site is 2.199 tons/acre/year. The erosion control measures will be sufficient to reduce the annual soil loss rate to less than the allowable for all conditions.

References

1. *Flood Insurance Rate Map, Hawaii County, Hawaii*, Map Number 15003 0190 D, Federal Emergency Management Agency, US Department of Homeland Security, March 16, 1995.
2. *Foundation Investigation, Science Building, Maui Community College, Kahului, Maui, Hawaii, W.O. 07-4536*, Hirata and Associates, Inc., February 14, 2008.
3. *Rainfall-Frequency Atlas of the Hawaiian Islands*, Department of Commerce, 1962.
4. United States Department of Agriculture, Natural Resources Conservation Service, *Web Soil Survey*, <http://websoilsurvey.nrcs.usda.gov/app/>, January 7, 2008
5. *Erosion and Sediment Control, Guide for Hawaii*, Soil Conservation Service, US Department of Agriculture, March 1981.
6. United States Department of Agriculture, Soil Conservation Service, *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii*, August 1972.
7. *Rules Relating to Soil Erosion Standards and Guidelines*, Department of Planning and Permitting, City and County of Honolulu, April 1999.

Appendix D
Pre-Consultation Agency Letters

AECOM

AECOM
1001 Bishop Street
Suite 1600
Honolulu, HI 96813
www.aecom.com

808 521 3051 tel
808 524 0246 fax

August 16, 2013

Director
Department of Business, Economic Development & Tourism
P. O. Box 2359
Honolulu, Hawaii 96804

Dear Director:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is preparing an environmental assessment (EA) for the new access roadway. The new roadway would follow the existing alignment of a coral access road southerly from the existing south access road, west of Kawaihae Road and parallel to the shoreline to the harbor. The roadway will be widened to 24 feet and comprised of a 3-inch thick layer of asphalt concrete (AC) atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4″-wide double-yellow centerline striping and 12″-wide white stop bar. Surface runoff drainage will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5′-wide vegetated earthen swales, which will convey drainage longitudinally to 6′-diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

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- Post mail: 1001 Bishop Street, Suite 1600, Honolulu, Hawaii 96813.
- Email: diane.kodama@aecom.com.

Sincerely yours,

for Diane Kodama
Senior Project Manager

Enclosure: Location Map

AECOM

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808 524 0246 fax

August 16, 2013

Office of the Chair Jobie Masagatani
Department of Hawaiian Home Lands
Hale Kalanianaole
91-5420 Kapolei Parkway
Kapolei, Hawaii 96707

Dear Office of the Chair:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

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August 16, 2013

Acting District Health Officer Aaron Ueno
Department of Health, District Health Office
P. O. Box 916
Hilo, Hawaii 96720

Dear Acting District Health Officer:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is preparing an environmental assessment (EA) for the new access roadway. The new roadway would follow the existing alignment of a coral access road southerly from the existing south access road, west of Kawaihae Road and parallel to the shoreline to the harbor. The roadway will be widened to 24 feet and comprised of a 3-inch thick layer of asphalt concrete (AC) atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4″-wide double-yellow centerline striping and 12″-wide white stop bar. Surface runoff drainage will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5′-wide vegetated earthen swales, which will convey drainage longitudinally to 6′-diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

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August 16, 2013

Aquatic Biologist William Walsh
Department of Land and Natural Resources
Aquatic Resources Division, Kona
74-380B Kealakehe Parkway
Kailua-Kona, Hawaii 96740

Dear Aquatic Biologist:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is preparing an environmental assessment (EA) for the new access roadway. The new roadway would follow the existing alignment of a coral access road southerly from the existing south access road, west of Kawaihae Road and parallel to the shoreline to the harbor. The roadway will be widened to 24 feet and comprised of a 3-inch thick layer of asphalt concrete (AC) atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4″-wide double-yellow centerline striping and 12″-wide white stop bar. Surface runoff drainage will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5′-wide vegetated earthen swales, which will convey drainage longitudinally to 6′-diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

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August 16, 2013

Interim Administrator Nicki Thompson
Department of Land and Natural Resources
State Historic Preservation Division
601 Kamokila Blvd., Ste. 555
Kapolei, Hawaii 96707

Dear Interim Administrator:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

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August 16, 2013

Administrator Samuel Lemmo
Department of Land and Natural Resources
Office of Conservation and Coastal Lands
1151 Punchbowl St., Room 131
Honolulu, Hawaii 96813

Dear Administrator:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is preparing an environmental assessment (EA) for the new access roadway. The new roadway would follow the existing alignment of a coral access road southerly from the existing south access road, west of Kawaihae Road and parallel to the shoreline to the harbor. The roadway will be widened to 24 feet and comprised of a 3-inch thick layer of asphalt concrete (AC) atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4″-wide double-yellow centerline striping and 12″-wide white stop bar. Surface runoff drainage will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5′-wide vegetated earthen swales, which will convey drainage longitudinally to 6′-diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

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August 16, 2013

Director Glenn Okimoto
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Director:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

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August 16, 2013

Deputy Director Randy Grune
Department of Transportation, Harbors Division
79 South Nimitz Highway
Honolulu, Hawaii 96813

Dear Deputy Director:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

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Senior Project Manager

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August 16, 2013

Deputy Director Jadine Urasaki
Department of Transportation, Projects
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Deputy Director:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

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August 16, 2013

Database Manager Roy Kam
Hawaii Biodiversity and Mapping Program

Dear Database Manager:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

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August 16, 2013

Community Resource Coordinator Ruby McDonald
Office of Hawaiian Affairs
75-5706 Hanama Place
Suite 107
Kailua-Kona, Hawaii 96740

Dear Community Resource Coordinator:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is preparing an environmental assessment (EA) for the new access roadway. The new roadway would follow the existing alignment of a coral access road southerly from the existing south access road, west of Kawaihae Road and parallel to the shoreline to the harbor. The roadway will be widened to 24 feet and comprised of a 3-inch thick layer of asphalt concrete (AC) atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4″-wide double-yellow centerline striping and 12″-wide white stop bar. Surface runoff drainage will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5′-wide vegetated earthen swales, which will convey drainage longitudinally to 6′-diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

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August 16, 2013

District Conservationist Jessica Sternfels
USDA, NRCS, Kealakekua Service Center
81-948 WaenaOihana Loop
Suite 101
Kealakekua, Hawaii 96750

Dear District Conservationist:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

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August 16, 2013

Acting Director Dora Beck
County of Hawaii, Department of Environmental Management
74-5044 Ane Keohokalole Highway
Bldg D
Kailua-Kona, Hawaii 96740

Dear Acting Director:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

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808 521 3051 tel
808 524 0246 fax

August 16, 2013

Director Clayton Honma
County of Hawaii, Department of Parks and Recreation
74-5044 Ane Keohokalole Highway
Bldg B
Kailua-Kona, Hawaii 96740

Dear Director:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is preparing an environmental assessment (EA) for the new access roadway. The new roadway would follow the existing alignment of a coral access road southerly from the existing south access road, west of Kawaihae Road and parallel to the shoreline to the harbor. The roadway will be widened to 24 feet and comprised of a 3-inch thick layer of asphalt concrete (AC) atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4″-wide double-yellow centerline striping and 12″-wide white stop bar. Surface runoff drainage will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5′-wide vegetated earthen swales, which will convey drainage longitudinally to 6′-diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

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- Post mail: 1001 Bishop Street, Suite 1600, Honolulu, Hawaii 96813.
- Email: diane.kodama@aecom.com.

Sincerely yours,

Diane Kodama
Senior Project Manager

Enclosure: Location Map

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808 524 0246 fax

August 16, 2013

Director Warren Lee
County of Hawaii, Public Works
101 Pauahi Street
Suite 7
Hilo, Hawaii 96720

Dear Director:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is preparing an environmental assessment (EA) for the new access roadway. The new roadway would follow the existing alignment of a coral access road southerly from the existing south access road, west of Kawaihae Road and parallel to the shoreline to the harbor. The roadway will be widened to 24 feet and comprised of a 3-inch thick layer of asphalt concrete (AC) atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4″-wide double-yellow centerline striping and 12″-wide white stop bar. Surface runoff drainage will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5′-wide vegetated earthen swales, which will convey drainage longitudinally to 6′-diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

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Sincerely yours,

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August 16, 2013

Director Quirino Antonio
County of Hawaii, Department of Water Supply
345 Kekuanaoa Street
Suite 20
Hilo, Hawaii 96720

Dear Director:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is preparing an environmental assessment (EA) for the new access roadway. The new roadway would follow the existing alignment of a coral access road southerly from the existing south access road, west of Kawaihae Road and parallel to the shoreline to the harbor. The roadway will be widened to 24 feet and comprised of a 3-inch thick layer of asphalt concrete (AC) atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4″-wide double-yellow centerline striping and 12″-wide white stop bar. Surface runoff drainage will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5′-wide vegetated earthen swales, which will convey drainage longitudinally to 6′-diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

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August 16, 2013

Council Member Valerie Poindexter
Council Member, District 1
64-1067 Mamalahoa Highway
Suite C-5
Kamuela, Hawaii 96743

Dear Council Member:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is preparing an environmental assessment (EA) for the new access roadway. The new roadway would follow the existing alignment of a coral access road southerly from the existing south access road, west of Kawaihae Road and parallel to the shoreline to the harbor. The roadway will be widened to 24 feet and comprised of a 3-inch thick layer of asphalt concrete (AC) atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4″-wide double-yellow centerline striping and 12″-wide white stop bar. Surface runoff drainage will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5′-wide vegetated earthen swales, which will convey drainage longitudinally to 6′-diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

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August 16, 2013

Mayor William Kenoi
Office of the Mayor
74-5044 Ane Keohokalole Highway
Bldg C
Kailua-Kona, Hawaii 96740

Dear Mayor:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

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Sincerely yours,

for Diane Kodama
Senior Project Manager

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August 16, 2013

Director Duane Kanuha
Planning Department
74-5044 Ane Keohokalole Highway
Bldg E
Kailua-Kona, Hawaii 96740

Dear Director:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

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August 16, 2013

Bill Jardine
Big Island Buyers Brokers
65-1291 Kawaihae Rd.
Suite 201
Kamuela, Hawaii 96743

Dear :

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is preparing an environmental assessment (EA) for the new access roadway. The new roadway would follow the existing alignment of a coral access road southerly from the existing south access road, west of Kawaihae Road and parallel to the shoreline to the harbor. The roadway will be widened to 24 feet and comprised of a 3-inch thick layer of asphalt concrete (AC) atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4″-wide double-yellow centerline striping and 12″-wide white stop bar. Surface runoff drainage will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5′-wide vegetated earthen swales, which will convey drainage longitudinally to 6′-diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

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Senior Project Manager

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August 16, 2013

Executive Director Donna Wong
Hawaii's 1000 Friends
25 Maluniu Avenue
Suite 102
Kailua, Hawaii 96734

Dear Executive Director:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

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Sincerely yours,

Diane Kodama
Senior Project Manager

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808 521 3051 tel
808 524 0246 fax

August 16, 2013

Executive Director Kiersten Faulkne
Historic Hawaii Foundation
680 Iwilei Road
Suite 690
Honolulu, Hawaii 96871

Dear Executive Director:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

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August 16, 2013

Edward Ayau
Hui Malama I Na Kupuna O Hawaii Nei
P. O. Box 190
Haleiwa, Hawaii 96712

Dear :

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

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August 16, 2013

President Doug Carr
Kawaihae Boating Association
P. O. Box 44652
Kamuela, Hawaii 96743

Dear President:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

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August 16, 2013

Director
Kohala Trollers Club
P. O. Box 1597
Kamuela, Hawaii 96743

Dear Director:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

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August 16, 2013

Director Jeff Mikulina
The Nature Conservancy
923 Nuuanu Ave
Honolulu, Hawaii 96817

Dear Director:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

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1001 Bishop Street
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Honolulu, HI 96813
www.aecom.com

808 521 3051 tel
808 524 0246 fax

August 16, 2013

President Kathy Whitmire
The Outdoor Circle
1314 South King Street
Suite 306
Honolulu, Hawaii 96814

Dear President:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is preparing an environmental assessment (EA) for the new access roadway. The new roadway would follow the existing alignment of a coral access road southerly from the existing south access road, west of Kawaihae Road and parallel to the shoreline to the harbor. The roadway will be widened to 24 feet and comprised of a 3-inch thick layer of asphalt concrete (AC) atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4″-wide double-yellow centerline striping and 12″-wide white stop bar. Surface runoff drainage will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5′-wide vegetated earthen swales, which will convey drainage longitudinally to 6′-diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

The EA will also assess two new 12″-diameter potable waterline, which would be connected to an existing 12-inch waterline along Kawaihae Road with new isolation butterfly valves, run westerly down the deep-draft harbor south access road, then turn southward beneath the access roadway down to the harbor. The project is anticipated to require a National Pollutant Discharge Elimination System (NPDES) Permit and Site-Specific Construction Best Management Practice (SSCBMP) Plan for Storm Water Discharge During Construction Activities.

This pre-assessment consultation process provides the opportunity for the community, agencies, groups, individuals, and organizations that have an interest or would be affected by the project, to be consulted. We would appreciate written comments within 30 days of this letter. Letter should be postmarked by September 16, 2013. Comments may be sent to Ms. Diane Kodama through the following methods:

- Post mail: 1001 Bishop Street, Suite 1600, Honolulu, Hawaii 96813.
- Email: diane.kodama@aecom.com.

Sincerely yours,

for Diane Kodama
Senior Project Manager

Enclosure: Location Map

AECOM
1001 Bishop Street
Suite 1600
Honolulu, HI 96813
www.aecom.com

808 521 3051 tel
808 524 0246 fax

August 16, 2013

President Billy Mitchell
Pua Ka Ilima O Kawaihae Cultural Surf Park, Inc.
P. O. Box 1725
Kamuela, Hawaii 96743

Dear President:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is preparing an environmental assessment (EA) for the new access roadway. The new roadway would follow the existing alignment of a coral access road southerly from the existing south access road, west of Kawaihae Road and parallel to the shoreline to the harbor. The roadway will be widened to 24 feet and comprised of a 3-inch thick layer of asphalt concrete (AC) atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4″-wide double-yellow centerline striping and 12″-wide white stop bar. Surface runoff drainage will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5′-wide vegetated earthen swales, which will convey drainage longitudinally to 6′-diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

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Sincerely yours,

for Diane Kodama
Senior Project Manager

Enclosure: Location Map

AECOM

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1001 Bishop Street
Suite 1600
Honolulu, HI 96813
www.aecom.com

808 521 3051 tel
808 524 0246 fax

August 16, 2013

Director
UHM Department of Oceanography
1000 Pope Road
Rm. 229
Honolulu, Hawaii 96822

Dear Director:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is preparing an environmental assessment (EA) for the new access roadway. The new roadway would follow the existing alignment of a coral access road southerly from the existing south access road, west of Kawaihae Road and parallel to the shoreline to the harbor. The roadway will be widened to 24 feet and comprised of a 3-inch thick layer of asphalt concrete (AC) atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4″-wide double-yellow centerline striping and 12″-wide white stop bar. Surface runoff drainage will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5′-wide vegetated earthen swales, which will convey drainage longitudinally to 6′-diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

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- Email: diane.kodama@aecom.com.

Sincerely yours,

for Diane Kodama
Senior Project Manager

Enclosure: Location Map

AECOM

AECOM
1001 Bishop Street
Suite 1600
Honolulu, HI 96813
www.aecom.com

808 521 3051 tel
808 524 0246 fax

August 16, 2013

Environmental Coordinator John Harrison
2500 Dole Street
Krauss Annex 19
Honolulu, Hawaii 96822

Dear Environmental Coordinator:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is preparing an environmental assessment (EA) for the new access roadway. The new roadway would follow the existing alignment of a coral access road southerly from the existing south access road, west of Kawaihae Road and parallel to the shoreline to the harbor. The roadway will be widened to 24 feet and comprised of a 3-inch thick layer of asphalt concrete (AC) atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4″-wide double-yellow centerline striping and 12″-wide white stop bar. Surface runoff drainage will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5′-wide vegetated earthen swales, which will convey drainage longitudinally to 6′-diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

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- Email: diane.kodama@aecom.com.

Sincerely yours,

for Diane Kodama
Senior Project Manager

Enclosure: Location Map

AECOM
1001 Bishop Street
Suite 1600
Honolulu, HI 96813
www.aecom.com

808 521 3051 tel
808 524 0246 fax

August 16, 2013

Director
UHM Water Resources Research Center
2540 Dole Stree
Rm. 283
Honolulu, Hawaii 96822

Dear Director:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is preparing an environmental assessment (EA) for the new access roadway. The new roadway would follow the existing alignment of a coral access road southerly from the existing south access road, west of Kawaihae Road and parallel to the shoreline to the harbor. The roadway will be widened to 24 feet and comprised of a 3-inch thick layer of asphalt concrete (AC) atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4″-wide double-yellow centerline striping and 12″-wide white stop bar. Surface runoff drainage will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5′-wide vegetated earthen swales, which will convey drainage longitudinally to 6′-diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

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- Email: diane.kodama@aecom.com.

Sincerely yours,

for Diane Kodama
Senior Project Manager

Enclosure: Location Map

AECOM
1001 Bishop Street
Suite 1600
Honolulu, HI 96813
www.aecom.com

808 521 3051 tel
808 524 0246 fax

August 16, 2013

Director
Waimea-Kawaihae Community Association
P. O. Box 685
Kamuela, Hawaii 96743

Dear Director:

Subject: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is preparing an environmental assessment (EA) for the new access roadway. The new roadway would follow the existing alignment of a coral access road southerly from the existing south access road, west of Kawaihae Road and parallel to the shoreline to the harbor. The roadway will be widened to 24 feet and comprised of a 3-inch thick layer of asphalt concrete (AC) atop a 6-inch deep layer of untreated aggregate base course. The intersection of the roadway with the deep-draft harbor south access road will be improved with pavement curves for driver comfort and vehicular maneuverability, and marked with standard pavement 4″-wide double-yellow centerline striping and 12″-wide white stop bar. Surface runoff drainage will be directed orthogonally via pavement cross slopes to roadway edges and managed by 5′-wide vegetated earthen swales, which will convey drainage longitudinally to 6′-diameter drywells for percolation into the ground. This natural filtration is anticipated to remove suspended solids and debris in the runoff.

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- Post mail: 1001 Bishop Street, Suite 1600, Honolulu, Hawaii 96813.
- Email: diane.kodama@aecom.com.

Sincerely yours,

Diane Kodama
Senior Project Manager

Enclosure: Location Map

Appendix E
Pre-Consultation Letters and Responses

OFFICE OF PLANNING
STATE OF HAWAII

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

NEIL ABERCROMBIE
GOVERNOR

JESSE K. SOUKI
DIRECTOR
OFFICE OF PLANNING

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

Ref. No. P-14106

RECEIVED
SEP 12 2013
AECOM

September 10, 2013

Ms. Diane Kodama
AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Dear Ms. Kodama:

Subject: Environmental Assessment Preparation Notice for Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements, Kohala, Island of Hawaii

Thank you for the opportunity to provide comments on the Environmental Assessment Preparation Notice for the Kawaihae Small Boat Harbor Waterline and Access Road Improvements.

We have reviewed the documents you submitted to us by letter dated August 19, 2013, and have the following comments to offer:

1. The entire state is defined to be within the Coastal Zone Management Area, pursuant to Hawaii Revised Statutes (HRS) §205A-1 (definition of "coastal zone management area"). The Draft Environmental Assessment (Draft EA) should include a discussion of the proposed project's ability to meet the objectives and policies set forth in HRS §205A-2.

2. CZM federal consistency review by the Hawaii CZM Program may be required if a Department of the Army Permit from the U.S. Army Corps of Engineers is required for any portion of the project. If other federal permits are required, then CZM federal consistency review may also be required for these permits.

3. The improvement project may have nonpoint pollution impacts on coastal waters. The applicant should review the Hawaii Watershed Guidance, which provides a summary and links to management measures that may be implemented to minimize coastal nonpoint pollution impact. This Guidance can be viewed or downloaded from the Office of Planning website at http://files.hawaii.gov/dbedt/op/czm/initiative/nonpoint/HI Watershed Guidance Final.pdf.

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

Sincerely,

Jesse K. Souki
Director

AECOM
1001 Bishop Street
Suite 1600
Honolulu, HI 96813
www.aecom.com

808 521 3051 tel
808 524 0246 fax

November 18, 2013

Jesse Souki, Director
State of Hawaii
Office of Planning
P.O. Box 2359
Honolulu, HI 96804

Dear Mr. Souki,

Subject: Environmental Assessment Preparation Notice for Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements, Kohala, Island of Hawaii

Thank you for your feedback on the above project. Below are responses to your comments.

The project and its relationship to the provisions of HRS 205A-2 will be discussed in appropriate sections of the Draft EA. All development within the SMA is administered through the County of Hawaii Department of Planning pursuant to the objectives and policies and the SMA guidelines as provided by HRS Chapter 205A. The proposed project is located within the SMA however, pursuant to HRS 171-6(19),the DLNR-DOBOR is authorized to, plan, design, construct, operate, and maintain any lands or facilities under the jurisdiction of the DLNR-DOBOR without the need to obtain a SMA minor permit or SMA use permit. Therefore, no SMA permit is required.

1. It has been confirmed that a U.S. Army Corps of Engineers permit is not required for this project, nor is any other federally issued permit required.

2. The Hawaii Watershed Guidance document will be referred to as part of the NPDES permit application process and its associated best management practices for the construction phase.

Again, thank you for your participation in this pre-consultation process. Your concerns and letter will be included as part of the draft Environmental Assessment.

Sincerely,

for

Diane Kodama
Senior Project Manager

NEIL ABERCROMBIE
GOVERNOR

LORETTA J. FUDDY, A.C.S.W., M.P.H.
Director of Health

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 916
HILO, HAWAII 96721-0916

RECEIVED
AUG 27 2013
AECOM

MEMORANDUM

DATE: August 23, 2013

TO: Diane Kodama
Senior Project Manager, AECOM

FROM: Newton Inouye
District Environmental Health Program Chief

SUBJECT: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kohala, Island of Hawaii

Underground Injection Systems (Ph. 586-4258) which receive wastewater or storm runoffs from the proposed development need to address the requirements of Chapter 23, Hawaii State Department of Health Administrative Rules, Title 11, "Underground Injection Control."

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of the subject document on August 22, 2013. The CWB has reviewed the limited information contained in the subject document and offers the following comments:

1. The Army Corps of Engineers should be contacted at (808) 438-9258 for this project. Pursuant to Federal Water Pollution Control Act (commonly known as the "Clean Water Act" (CWA)), Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters…". The term "discharge" is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40, Code of Federal Regulations, Section 122.2, and Hawaii Administrative Rules (HAR), Chapter 11-54.

2. In accordance with HAR, Sections 11-55-04 and 11-55-34.05, the Director of Health may require the submittal of an individual permit application or a Notice of Intent (NOI) for general permit coverage authorized under the National Pollutant Discharge Elimination System (NPDES).

    a. An application for an NPDES individual permit is to be submitted at least 180 days before the commencement of the respective activities. The

NPDES application forms may also be picked up at our office or downloaded from our website at: http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html.

b. An NOI to be covered by an NPDES general permit is to be submitted at least 30 days before the commencement of the respective activity. A separate NOI is needed for coverage under each NPDES general permit. 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.

i. 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). [HAR, Chapter 11-55, Appendix B]

ii. Construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. An NPDES permit is required before the commencement of the construction activities. [HAR, Chapter 11-55, Appendix C]

iii. Discharges of treated effluent from leaking underground storage tank remedial activities. [HAR, Chapter 11-55, Appendix D]

iv. Discharges of once through cooling water less than one (1) million gallons per day. [HAR, Chapter 11-55, Appendix E]

v. Discharges of hydrotesting water. [HAR, Chapter 11-55, Appendix F]

vi. Discharges of construction dewatering effluent. [HAR, Chapter 11-55, Appendix G]

vii. Discharges of treated effluent from petroleum bulk stations and terminals. [HAR, Chapter 11-55, Appendix H]

viii. Discharges of treated effluent from well drilling activities. [HAR, Chapter 11-55, Appendix I]

ix. Discharges of treated effluent from recycled water distribution systems. [HAR, Chapter 11-55, Appendix J]

x. Discharges of storm water from a small municipal separate storm sewer system. [HAR, Chapter 11-55, Appendix K]

xi. Discharges of circulation water from decorative ponds or tanks. [HAR, Chapter 11-55, Appendix L]

3. In accordance with HAR, Section 11-55-38, the applicant for an NPDES permit is required to either submit a copy of the new NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the DOH that the project, activity, or site covered by the NOI or application has been or is being reviewed by SHPD. If applicable, please submit a copy of the request for review by SHPD or SHPD's determination letter for the project.

4. Any discharges related to project construction or operation activities, with or without a Section 401 WQC or NPDES permit coverage, shall comply with the applicable State Water Quality Standards as specified in HAR, Chapter 11-54.

Hawaii Revised Statutes, Subsection 342D-50(a) requires that "[n]o person, including any public body, shall discharge any water pollutants into state waters, or cause or allow any water pollutant to enter state waters except in compliance with this chapter, rules adopted pursuant to this chapter, or a permit or variance issued by the director."

If you have any questions, please contact Mr. Alec Wong, Supervisor of the Engineering Section, CWB, at (808) 586-4309.

We recommend that you review all of the Standard Comments on our website: http://hawaii.gov/health/environmental/env-planning/landuse/landuse.html. Any comments specifically applicable to this project should be adhered to.

The same website also features a Healthy Community Design Smart Growth Checklist (Checklist) created by Built Environment Working Group (BEWG) of the Hawaii State Department of Health. The BEWG recommends that state and county planning departments, developers, planners, engineers and other interested parties apply the healthy built environment principles in the Checklist whenever they plan or review new developments or redevelopments projects. We also ask you to share this list with others to increase community awareness on healthy community design.

AECOM

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1001 Bishop Street
Suite 1600
Honolulu, HI 96813
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808 521 3051 tel
808 524 0246 fax

November 18, 2013

Newton Inouye
District Environmental Health Program Chief
State of Hawaii
Department of Health
P.O. Box 916
Hilo, HI 96721

Dear Mr. Inouye,

Subject: Environmental Assessment Preparation Notice for Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements, Kohala, Island of Hawaii

Thank you for your feedback on the above project. Below are responses to your comments.

1. It has been determined that a U.S. Army Corps of Engineers permit is not required for this project, as this project will not result in any discharge into navigable waters as defined by the U.S. Army Corps of Engineers. (See enclosed copy of email correspondence).

2. The project developers will be applying for an NPDES prior to, and as part of, the construction phase of this project.

Again, thank you for your participation in this pre-consultation process. Your concerns and letter will be included as part of the draft Environmental Assessment.

Sincerely,

Meg for

Diane Kodama
Senior Project Manager

William P. Kenoi
Mayor

Walter K. M. Lau
Managing Director

Warren H. W. Lee
Director

Brandon A. K. Gonzalez
Deputy Director

County of Hawai'i
DEPARTMENT OF PUBLIC WORKS
Aupuni Center
101 Pauahi Street, Suite 7 · Hilo, Hawai'i 96720-4224
(808) 961-8321 · Fax (808) 961-8630
www.co.hawaii.hi.us

RECEIVED
AUG 27 2013
AECOM

August 22, 2013

Diane Kodama, Senior Project Manager
AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI. 96813

SUBJECT: Pre-Draft EA Notification
Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
TMK: (3)6-1-003:025, 026

We received the subject dated August 13, 2013 and have the following comments :

We have determined that the subject property is located within Flood Zone "VE, AE, A and X" according to the Flood Insurance Rate Map (FIRM) by the Federal Emergency Management Agency (FEMA).

Any new construction, substantial improvements or ground alterations within the AE,VE and A Zones will be subject to the requirements of Chapter 27 - Flood Plain Management, of the Hawaii County Code. Filling which would result in the blockage or impediment to flow and/or induce or aggravate flooding shall be prohibited unless certified by a professional civil engineer licensed in the State of Hawaii, with supporting data, that the encroachment will not cause any increase in base flood elevations during the occurrence of the base flood discharge. New water systems shall be designed to minimize infiltration of flood waters into the system.

In 2008, the Federal Emergency Management Agency (FEMA) issued a Hurricane Study for Hawai'i County. In terms of potential risk to life and property, the more protective Base Flood Elevations and Special Flood Hazard Areas from FEMA's hurricane study, were incorporated onto FEMA's July 2011, Preliminary Digital Flood Insurance Rate Maps (Preliminary DFIRMs). Until FEMA's Preliminary DFIRMs become effective, the County will continue using FEMA's current effective Flood Insurance Rate Maps and Flood Insurance Study for Hawai'i County. We advise all coastal property owners to review FEMA's Preliminary DFIRMs and design/construct as appropriate. The Preliminary DFIRMs can be reviewed at the State of Hawai'i, Department of Land and Natural Resources' website: http://gis.hawaiinfip.org/fhat/.

Should there be any questions concerning this matter, please contact Kiran Emler in our Engineering Division at (808) 323-4851.

BEN ISHII, Division Chief
Engineering Division

Copy: Eng –Hilo/Kona

AECOM

AECOM
1001 Bishop Street
Suite 1600
Honolulu, HI 96813
www.aecom.com

808 521 3051 tel
808 524 0246 fax

November 18, 2013

Ben Ishii
Division Chief, Engineering Division
County of Hawaii
Department of Public Works
101 Pauahi Street, Suite 7
Hilo, HI 96720

Dear Mr. Ishii,

Subject: Environmental Assessment Preparation Notice for Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements, Kohala, Island of Hawaii

Thank you for your feedback on the above project. Below are responses to your comments.

- The status of, and impacts from, the flood zone designation for this project site area will be discussed in appropriate sections of the draft Environmental Assessment. It will also be noted in the draft EA that *"any new construction or ground alterations within the above zones will be subject to requirements of Chapter 27 – Flood Plain Management of the Hawaii County Code".*

- Portions of this project may be located in the VE flood zone as defined in Chapter 27 of the Hawaii County Code. A flood zone variance, if required, will be pursued as part of the implementation of this project.

Again, thank you for your participation in this pre-consultation process. Your concerns and letter will be included as part of the draft Environmental Assessment.

Sincerely,

Jeff Mz for:

Diane Kodama
Senior Project Manager

NEIL ABERCROMBIE
GOVERNOR
STATE OF HAWAII

JOBIE M. K. MASAGATANI
CHAIRMAN
HAWAIIAN HOMES COMMISSION

DARRELL T. YOUNG
DEPUTY TO THE CHAIRMAN

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
P. O. BOX 1879
HONOLULU, HAWAII 96805

September 12, 2013

Ms. Diane Kodama
AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Dear Ms. Kodama:

RE: Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements Environmental Assessment (EA) Pre-Assessment Consultation

The Department of Hawaiian Home Lands (DHHL) is in receipt of your August 16, 2013, letter requesting comments on the above-mentioned project. The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR, DOBOR) is planning a new access roadway at the Kawaihae Small Boat Harbor. The EA will also assess two new 12-inch diameter potable waterlines that will connect with an existing 12-inch waterline along Kawaihae Road.

DHHL has land holdings in the Kawaihae region of approximately 10,150 acres (ac). DHHL land holdings consist of lands for residential use (2,200 ac), general agriculture (7,500 ac), community use (70 ac), and industrial/commercial use (360 ac). Approximately 100 homestead residents live on DHHL lands in Kawaihae.

The EA for this project should evaluate the project's potential positive or negative impact on DHHL's 2010 "Kawaihae Regional Plan." The plan can be found at the following website:

<http://dhhl.hawaii.gov/wp-content/uploads/2011/06/Kawaihae-Regional-Plan.pdf>

Kawaihae has an extremely dry climate and potable water is a scarce resource in the region. The discussion in the draft EA regarding the installation of two new 12-inch diameter potable waterlines should include information about how regional water systems will be impacted by this action. Specifically, please provide information regarding how the installation of the two potable waterlines may affect future water use and demand. DHHL lands are serviced by a private water system that is owned and operated by Kohala Ranch. Please discuss foreseeable positive or negative impacts to the water system that DHHL utilizes. Also, please indicate if there is any potential for collaboration among water users in the region that may enhance future potable water opportunities for all users.

DHHL also strongly recommends that DLNR, DOBOR include the Kailapa Community Association and Kawaihae Pua Ka Ilima Community Association in the consultation process for this project and the cultural impact assessment that will be conducted for this project in accordance with Chapter 343 Hawaii Revised Statutes (HRS).

Mahalo for the opportunity to comment. If you have further questions, please contact Andrew Choy at (808) 620-9279 or email him at andrew.h.choy@hawaii.gov.

Aloha,

Darrell Yagodich,
Planning Program Manager
Department of Hawaiian Home Lands

c: DHHL West Hawaii District Office

AECOM

AECOM
1001 Bishop Street
Suite 1600
Honolulu, HI 96813
www.aecom.com

808 521 3051 tel
808 524 0246 fax

November 18, 2013

Darrell Yagodich
Planning Program Manager
Department of Hawaiian Home Lands
P.O. Box 1879
Honolulu, HI 96805

Dear Mr. Yagodich,

Subject: Environmental Assessment Preparation Notice for Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements, Kohala, Island of Hawaii

Thank you for your feedback on the above project. Below are responses to your comments.

1. Evaluation of the project's potential impact on DHHL's 2010 Kawaihae Regional Plan will be discussed in appropriate sections of the Draft Environmental Assessment. Section 3.5 will specifically address water demand and supply and any nexus between future development plans of DHHL in the immediate area.

2. The Office of Hawaiian Affairs, Hui Malama I Na Kupuna O Hawaii Nei, Pua Ka Ilima O Kawaihae Cultural Surf Park, Inc., the Waimea-Kawaihae Community Association and numerous other stakeholder and governmental and non-governmental organizations were consulted as part of the review of this Draft EA, with most choosing not to respond as part of the early consultation process. A full listing of pre-consultation recipients will be included as part of the draft EA.

Again, thank you for your participation in this pre-consultation process. Your concerns and letter will be included as part of the draft Environmental Assessment.

Sincerely,

Jeff Mc for:

Diane Kodama
Senior Project Manager

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

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

ESTHER KIA'AINA
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

REF: OCCL: AJR

COR: HA-14-21

AUG 2 6 2013

Diane Kodama
c/o AECOM
1001 Bishop St., Ste 1600
Honolulu, HI 96813

SUBJECT: COMMENTS ON DRAFT ENVIRONMENTAL ASSESSMENT (DEA) FOR THE PROPOSED KAWAIHAE SMALL BOAT HARBOR WATERLINE AND ACCESS ROAD IMPROVEMENT PROJECT
South Kohala District, Island of Hawaii
TMKs: (3) 6-1-003:025 & 026

The Office of Conservation and Coastal Lands (OCCL) is in receipt of your letter regarding the preparation of a Draft Environmental Assessment (DEA) to be submitted on behalf of the Department of Land and Natural Resources (DLNR) Division of Boating and Ocean Recreation (DOBOR) for the proposed Kawaihae Small Boat Harbor (SBH) Waterline and Access Road Improvement Project.

According to our files and current maps it appears that the project TMKs are located entirely within the State Land Use (SLU) Urban District and therefore are not regulated by this office. We would, however, like to remind you that lands located seaward (*makai)* of the shoreline are considered to be within the SLU Conservation District Resource Subzone and any land uses conducted in this area may require authorization from the OCCL.

Should you have any questions concerning this correspondence, please feel free to contact Alex J. Roy, M.Sc. of our Office of Conservation and Coastal Lands staff at 808-587-0316 or via email at alex.j.roy@hawaii.gov

Sincerely,

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

CC: HDLO
Hawaii County Department of Planning
DOBOR

RECEIVED
AUG 2 8 2013
AECOM

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

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

ESTHER KIA'AINA
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ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

HISTORIC PRESERVATION DIVISION
DEPARTMENT OF LAND AND NATURAL RESOURCES

601 Kamokila Boulevard, Suite 555
Kapolei, HI 96806

September 11, 2013

RECEIVED
SEP 13 2013
AECOM

LOG NO: 2013.4891
DOC NO: 1309MV07
Archaeology

Diane Kodama
AECOM
1001 Bishop Street
Honolulu HI, 96813

Dear Ms. Kodama:

SUBJECT: **Chapter 6E-8 Historic Preservation Review –**
Notice of Environmental Assessment Preparation for
Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements
Kawaihae Ahupua'a, South Kohala District, Island of Hawai'i
TMK: (3) 6-1-003:025 & 026

Thank you for the opportunity to review this project that was received by our office on August 19, 2013. According to the preparation of an Environmental Assessment (EA) notice, the purpose of this project is to widen the existing crushed coral road by 24 feet and pave it with asphalt concrete (AC). In addition, the project involves the installation of two new 12 inch potable waterlines. A review of our records indicates that no adequate inventory survey exists for this project area. Our records also indicate that this project will take place in the immediate vicinity of Pu'u Kohola Heiau (SIHP 4139) which is listed on the National Register of Historic Places, and is considered a national Historic Landmark. This location served as a royal center and therefore, it is likely that historic properties exist in the project area. Our records also indicate that the proposed project will take place primarily within the geological substrate described by Sato et. al. 1973 as fill land (FL). This fill land was created by the deposition of dredged material from the construction of Kawaihae harbor onto the former land surface. This process may have covered over historic properties and burial sites located at the former Puakailima settlement.

We recommend that an **AIS be conducted** of the proposed project area in order to adequately identify any historic properties and, if necessary, determine an appropriate course of mitigation. We believe that the AIS report should be included in the EA so that the impact of this development on historic resources can be adequately considered. We look forward to the opportunity to review an AIS report that meets the standards of Hawaii Administrative Rule (HAR) 13-276. Specifically we request that consultation with individuals knowledgeable about the project area in undertaken pursuant to HAR 13-276-8, and if necessary, archaeological excavations are undertaken in order to identify subsurface historic properties. We look forward to consulting with you throughout the environmental and historic preservation review processes.

Please contact Mike Vitousek at (808) 652-1510 or Michael.Vitousek@Hawaii.gov if you have any questions or concerns regarding this letter.

Aloha,

Theresa K. Donham,
Archaeology Branch Chief

AECOM

AECOM
1001 Bishop Street
Suite 1600
Honolulu, HI 96813
www.aecom.com

808 521 3051 tel
808 524 0246 fax

November 18, 2013

Theresa K. Donham
Archaeology Branch Chief
Historic Preservation Division
Department of Land and Natural Resources
601 Kamokila Boulevard, Suite 555
Kapolei, HI 96806

Dear Ms. Donham,

Subject: Environmental Assessment Preparation Notice for Kawaihae Small Boat Harbor (South) Waterline and Access Road Improvements, Kohala, Island of Hawaii

Thank you for your feedback on the above project. Below are responses to your comments.

1. Cultural and historical resources will be discussed in appropriate sections of the draft Environmental Assessment.

2. As a standard mitigation measure for all construction sites, including this project, if a contractor uncovers any cultural resources during construction activities, the contractor will be required to stop work immediately and notify SHPD. SHPD will then determine the appropriate treatment of these new finds and any subsequent actions.

3. Per your agency's request, an Archaeological Inventory Survey is currently in the process of being completed for the project site. The AIS findings will be discussed in the Final EA. In addition, the AIS will be included as an appendix to the Final EA.

Again, thank you for your participation in this pre-consultation process. Your concerns and letter will be included as part of the draft Environmental Assessment.

Sincerely,

Diane Kodama
Senior Project Manager

-----Original Message-----
From: Paahana, Jessie K POH [mailto:Jessie.K.Paahana@usace.army.mil]
Sent: Wednesday, November 06, 2013 2:18 PM
To: Merz, Jeff
Subject: RE: Letter for Kawaihae Harbor - permit not needed, confirmation please (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Aloha, Jeff:

Based on the drawing (C-2) submitted to our office by email dated 6 Nov 13, it does not appear the proposed paving of the existing road will require construction work in, over or under a navigable water of the U.S. and also does not appear to result in the discharge of fill material into a water of the U.S. Therefore, it does not appear your proposed action will require a Dept of the Army permit from the U.S. Army Corps of Engineers, Honolulu District.

Thank you for your inquiry. If future plans require either the work or installation of structures (temporary and/or permanent) in navigable waters or results in the discharge of fill material into waters of the U.S., you must receive prior authorization from the Corps.

Mahalo,
Jessie

Jessie K Paahana, Biologist
US Army Corps of Engineers, Regulatory
Ft. Shafter, Bldg. 214
ph: 808.835.4107 (Please note the recent number change)

For more information regarding the Regulatory Program at the Honolulu District, please visit our website at http:// www.poh.usace.army.mil/Missions/Regulatory.aspx.

You are encouraged to provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at http://www.per2.nwp.usace.army.mil/survey.html.

Appendix F
2008 Final Environmental Assessment Kawaihae Small Boat Harbor (South) Improvements, Phase I

Final Environmental Assessment
Kawaihae Small Boat Harbor (South) Improvements, Phase 1

Kawaihae, Island of Hawai‘i, Hawai‘i
TMK (3)6-1-003: Por. 026

MAY 2008

Prepared for:

State of Hawai‘i
Department of Land and Natural Resources
Division of Boating and Ocean Recreation
333 Queen Street, Suite 300
Honolulu, Hawai‘i 96813

Prepared by:

M&E Pacific, Inc.

METCALF & EDDY | AECOM

Davies Pacific Center, 841 Bishop Street
Suite 1900, Honolulu, Hawai‘i 96813

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Appendix C: *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor*, dated 1985
Appendix D: *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels*, dated 1994
Appendix E: Site Photos
Appendix F: CZM Assessment

SECTION 1

PROJECT SUMMARY

Project Name:	Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Accepting Authority:	State of Hawaiʻi Board of Land and Natural Resources P.O. Box 621 Honolulu, Hawaiʻi Contact: Mr. Edward R. Underwood, Administrator Phone: (808) 587-1966
Proposing Agency:	State of Hawaiʻi Department of Land and Natural Resources Division of Boating and Ocean Recreation 333 Queen Street, Suite 300 Honolulu, Hawaiʻi 96813 Contact: Mr. Eric Yuasa, Engineering Branch Head Phone: (808) 587-0122 Fax: (808) 587-1977
Consultant Agent:	M&E Pacific, Inc. Davies Pacific Center 841 Bishop Street, Suite 1900 Honolulu, Hawaiʻi 96813 Contact: Mr. Martin Nakasone, Project Manager Phone: (808) 521-3051 Fax: (808) 524-0246
Location:	Kawaihae Small Boat Harbor (South) Kawaihae, Island of Hawaiʻi, Hawaiʻi
TMK Designation:	3rd Tax Division 6-1-003: Por. 026
Property Owner:	State of Hawaiʻi Department of Transportation
State Land Use Classification:	Urban and Conservation (Resource Subzone)
County Zoning:	MG-1a (General Industrial -1 acre), Open, RM -1.5 (Multiple Family Residential -1.5 acre)
County Plan:	Open
Proposed Action:	This project proposes to construct a three-lane boat launch ramp with loading docks, a floating dock with mooring blocks, site lighting, a comfort station with outdoor shower, a boat wash down area, and various parking areas at the Kawaihae Small Boat Harbor (South) in order to accommodate the demand for light-draft watercraft operations in the Kawaihae community.
Determination:	Finding of No Significant Impact (FONSI)

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SECTION 2

CONSULTATION LIST

2.1 FEDERAL

2.1.1 AGENCY LIST

Advisory Council on Historic Preservation
NOAA/National Marine Fisheries Service
U.S. Army Corps of Engineers
U.S. Coast Guard, 14th C.G. District
U.S. Department of the Interior, National Park Service
U.S. Department of the Interior, U.S. Fish and Wildlife Service (FWS)
U.S. Department of Transportation, Maritime Administration (MARAD)
U.S. Environmental Protection Agency (EPA), Region 9

2.1.2 CONTACT INFORMATION AND SUMMARY

Advisory Council on Historic Preservation	
Contact:	Mr. Don Klima, OFAP Director
Address:	1100 Pennsylvania Avenue, NW Suite 809
	Washington, DC 20004
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing agency of the DEA publication sent.

NOAA/National Marine Fisheries Service	
Contact:	Mr. Bill Robinson, Manager
Address:	Pacific Islands Regional Office
	1601 Kapiolani Boulevard, Suite 1110
	Honolulu, HI 96814
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline
10/11/2007	Letter informing agency of the DEA publication sent.

U.S. Army Corps of Engineers, Civil Works Technical Branch, Engineering & Construction Div.	
Contact:	Mr. James L. Bersson, P.E., Deputy District Engineer for Programs and Project Management
Address:	Pacific Ocean Division Building 230 Fort Shafter, HI 96858-5440 (808) 438-8874
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1** for all correspondence.
8/13/2007	USACE letter response received.
Summary:	The USACE requires a permanent maintenance easement ROW and access to the root of both breakwater structures. The easement is to remain clear of any permanent obstructions to allow access from Queen Ka'ahumanu Highway to the breakwaters. If construction activities will disturb one or more acres of ground surface, a General Permit for Stormwater Discharges Associated with Construction Activities should be obtained. Kawaihae is located within Class A marine waters. Kawaihae Harbor is listed as an impaired water body for turbidity per the State's 2004 303d Report. Consultation with the State's Clean Water Branch is suggested. Consultation with the County of Hawai'i Planning Office is recommended to determine if an SMA permit is needed.
10/11/2007	Response letter to comments and copy of DEA sent.

U.S. Army Corps of Engineers, Regulatory Branch	
Contact:	Mr. George P. Young, P.E., Chief, Regulatory Branch
Address:	Pacific Ocean Division Building 230 Fort Shafter, HI 96858-5440
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1** for all correspondence.
8/23/2007	USACE response received.
Summary:	The dEA should indicate those activities which will be over, in, and under waters of the United States (Pacific Ocean). Those activities which have the potential to result in the discharge of dredged or fill material into waters of the U.S. should be described in the dEA. The dEA should address whether aids to navigation are part of, or excluded from the proposed project, and should state that there is or is no potential for waters of the U.S. to be impacted by the proposed construction activities. Upon receipt of the Final EA, it may be determined whether a DA permit for Section 10 activities of the Rivers and Harbors Act and Section 404 activities of the Clean Water Act may or may not be required for the proposed project.
10/11/2007	Response letter to comments and copy of DEA sent.

U.S. Coast Guard, 14th C.G. District	
Contact:	Mr. Patrick M. McMillin; Chief, Resource and Performance Management Commander
	Ms. Cherrie Cervantes (charito.p.cervantes@uscg.mil)
Address:	300 Ala Moana Boulevard, Suite 9108
	Honolulu, HI 96850-4982
	(808) 541-2268
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
8/9/2007	Coast Guard letter response received.
Summary:	The Coast Guard has no additional comments at this time.
10/11/2007	Letter informing agency of the DEA publication sent.

U.S. Department of the Interior, National Park Service	
Contact:	Superintendent
Address:	62-3601 Kawaihae Road
	Kawaihae, HI 96743
7/24/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing agency of the DEA publication sent.

U.S. Department of the Interior, U.S. Fish and Wildlife Service (FWS)	
Contact:	Mr. Patrick Leonard, Field Supervisor
Address:	300 Ala Moana Boulevard, #3-122
	Honolulu, HI 96850
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1** for all correspondence.
8/13/2007	U.S. FWS letter response received. Refer to **Appendix B** for response.
Summary:	U.S. FWS states that the Newell's shearwater (federally threatened) and the Hawaiian petrel (federally endangered) birds are known to occur in the vicinity of the action area. Additionally, several species which are not listed under the Endangered Species Act but are protected under the Migratory Bird Treaty Act may transit the area. U.S. FWS is concerned that bright lights may disorient night-flying seabirds. U.S. FWS suggests lighting associated with the improvements be shielded downward so that the bulb is not visible at bulb height from the side, lights use the shortest poles and lowest wattage possible and do not extend above the height of existing vegetation to minimize the potential for disorienting the birds and minimizing collisions of the birds with light poles.
10/11/2007	Response letter to comments and copy of DEA sent.

U.S. Department of Transportation, Maritime Administration (MARAD)	
Contact:	Mr. Sean Connaughton, Maritime Administrator
Address:	West Building, Southeast Federal Center
	1200 New Jersey Avenue, SE
	Washington, DC 20004
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing agency of the DEA publication sent.

U.S. Environmental Protection Agency (EPA), Region 9	
Contact:	Mr. Dean Higuchi, Administrator
Address:	Pacific Islands Contact Office
	U.S. EPA, Region 9
	P.O. Box 50003
	Honolulu, HI 96850
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing agency of the DEA publication sent.

2.2 STATE OF HAWAI'I

2.2.1 AGENCY LIST

Department of Business, Economic Development and Tourism (DBEDT), Office of Planning
Department of Hawaiian Home Lands (DHHL)
Department of Health (DOH), County of Hawai'i District Health Office
Department of Land and Natural Resources (DLNR), Aquatic Resources Division-Kona
Department of Land and Natural Resources (DLNR), Historic Preservation Division (SHPD)
Department of Land and Natural Resources (DLNR), Office of Conservation and Coastal Lands (OCCL)
Department of Transportation (DOT)
Department of Transportation, Harbors Division (DOT-Harbors)
Department of Transportation, Highways Division (DOT-Highways) Planning Branch
Hawai'i Biodiversity and Mapping Program
Office of Hawaiian Affairs (OHA)
Natural Resources Conservation Service (NRCS), USDA

2.2.2 CONTACT INFORMATION AND SUMMARY

Department of Business, Economic Development and Tourism (DBEDT), Office of Planning	
Contact:	Mr. Theodore Liu, Director
Address:	P.O. Box 2359
	Honolulu, HI 96804
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1** for all correspondence.
7/16/2007	DBEDT Coastal Zone Management (CZM) response received via email.
Summary:	DBEDT, CZM Program no longer reviews and comments on environmental assessments or impact statements.
10/11/2007	Letter informing agency of the DEA publication sent.

Department of Hawaiian Home Lands (DHHL)	
Contact:	Mr. Ken Taguchi, Information & Community Relations
Address:	1099 Alakea Street, Suite 2000
	Honolulu, HI 96813
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1** for all correspondence.
7/16/2007	DHHL response received via email.
Summary:	DHHL forwarded letter to the Planning Office for review and comment.
10/11/2007	Letter informing agency of the DEA publication sent.

Department of Health (DOH), County of Hawai'i District Health Office	
Contact:	Mr. Newton Inouye, Acting District Environmental Health Program Chief
Address:	P.O. Box 916
	Hilo, HI 96720
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1** for all correspondence.
8/8/2007	DOH letter response received.
Summary:	DOH stated that a section 401 Water Quality Certification is required for the proposed project. A NPDES (individual or NOI) may be required and SHPD must review the application. Any discharges related to project construction or operation activities shall comply with the applicable State Water Quality Standards as specified in HAR, Chapter 11-54 for the proposed project. The Wastewater Branch found no wastewater/environmental health concerns with regulatory implications in the submittal. The use of individual wastewater systems is allowed.
10/11/2007	Response letter to comments sent.

Department of Land and Natural Resources (DLNR), Aquatic Resources Division-Kona	
Contact:	Dr. William J. Walsh, Ph.D., Aquatic Biologist
Address:	74-380B Kealakehe Parkway
	Kailua-Kona, HI 96740
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing agency of the DEA publication sent.

Department of Land and Natural Resources (DLNR), Historic Preservation Division (SHPD)	
Contact:	Ms. Pua Aiu, Administrator
Address:	Kakuhihewa Building, Room 555
	601 Kamokila Boulevard
	Kapolei, HI 96707
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing agency of the DEA publication and copy of DEA sent.
	Multiple phone calls to follow up on status made; no comments received.
5/21/2008	Letter informing agency that no comments to the DEA are assumed as no response was received from the SHPD office.

Dept. of Land and Natural Resources (DLNR), Office of Conservation and Coastal Lands (OCCL)	
Contact:	Mr. Samuel Lemmo, Administrator; Ms. Dawn Hegger
Address:	P.O. Box 621
	Honolulu, HI 96809
	(808) 587-0380
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
8/16/2007	DLNR OCCL Letter response received.
Summary:	The work will occur in the State Land Use (SLU) Conservation District, Resource subzone. The site is currently managed by the DLNR, DOBOR and is considered a non-conforming use. The proposed elements of the project are considered routine repair and maintenance for a use of which no permit is required. The project is minor in scope and within the scope of Kawaihae Small Boat Harbor operations and maintenance.
10/11/2007	Response letter to comments and copy of DEA sent.

Department of Transportation (DOT)	
Contact:	Dr. Brennon Morioka, Director
Address:	869 Punchbowl Street
	Honolulu, HI 96813-5097
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
8/14/2007	State DOT letter response received.
Summary:	Project plans will need advance review and coordination with the Harbors and Highways Divisions. Boat traffic and circulation should be addressed in regards to safety factors associated with the mix of commercial vessels and small boats using the Kawaihae Harbor complex. Boating activities and Harbor operations on the harbor land should also be discussed. Ingress and egress at and to/from the fronting State highway to the South boat facility will need to be addressed for traffic purposes. Consultation with the Hawai'i District Offices and Planning Branches of the Harbors and Highways Divisions is requested. Copies of the EA should be provided to both district and planning staff for their review and comment. A copy of the EA should also be submitted to the Statewide Transportation Planning Office.
10/11/2007	Response letter to comments sent.

Department of Transportation (DOT) Continued	
11/30/2007	State DOT letter response received.
Summary:	This an interim reply letter which is provided as a follow-up to verbal comments provided by DOT staff. As discussed, the various DOT offices did not receive copies of the Draft EA as we had requested in the early consultation, thus the delay in distribution of the Draft EA does not allow for comprehensive review of the document. DOT respectfully requests a three-week extension of the response deadline. DOT continues to recommend that the Harbors and Highways Division's Hawaii District Offices be consulted to ascertain any operational issues. We further request that these coordinating efforts and our forthcoming comments be documented in the final EA
12/7/2007	Response letter to comments sent from DLNR to DOT. Resent 12/26/2007
12/21/2007	State DOT letter response received, refer to **Appendix A-1**.
Summary:	Offshore improvements constructed by the USACE remains their property to be maintained through the life of the project. Figure 3-3 delineates the General Project Limits that include some lands and offshore water area. The Shore side boundary between DOT and DLNR should be identified as conceptual as the property line is as yet undefined. Land surveys and amended Executive Orders will be necessary for the land transfer. DLNR-DOBOR would like to obtain a larger area than the 10-acre land transfer proposed. Justification is needed for a larger acreage, and land surveys and amended Executive Orders will be necessary for the land transfer. DLNR-DOBOR should be coordinating with DOT-Highways regarding the location of the new driveway access to Akoni Pule highway. DOT-Harbors is concerned with the growing commercial vehicle traffic and development of new recreational facilities, which will share the same internal roadway. An 8-foot high security fence with three strands of barbed wire should be provided to separate the recreational area and traffic from commercial harbor operations. Throughout the interim period before the new access road is constructed, DLNR, DOBOR must coordinate with DOT-Harbors on their use of the existing secured gate to Kawaihae Harbor.

Department of Transportation, Harbors Division (DOT-Harbors)	
Contact:	Mr. Davis Yogi, Harbors Administrator
Address:	Hale Awa Ku Moku Building 79 South Nimitz Highway, Room 310 Honolulu, HI 96813-1898
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**. Response not received by the 30-day deadline.
10/11/2007	Letter informing agency of the DEA publication and copy of DEA sent.
10/25/2007	Response letter received. Refer to **Appendix A-2** for response.
Summary:	DOT-Harbors is in discussion with DOBOR on the development of the project area. They are aware of issues with the development of this area. DOT-Harbors' concerns and comments were addressed in Mr. Barry Fukunaga's response letter dated 8/14/2007. Comments to the DEA will be provided shortly.

Department of Transportation, Highways Division (DOT-Highways) Planning Office	
Contact:	Mr. Elton Teshima, Head Planning Engineer
Address:	Hale Awa Ku Moku Building
	869 Punchbowl Street, Room 301
	Honolulu, HI 96813
10/11/2007	Copy of DEA sent for review.

Hawai'i Biodiversity and Mapping Program	
Contact:	Mr. Roy Kam, Database Manager
Address:	677 Ala Moana Blvd., Suite 705
	Honolulu, HI 96813
6/5/2007	Consultation Request sent via email, refer to **Appendix A-1**.
6/5/2007	Response received via email. Refer to **Appendix B** for response.
Summary:	No rare species or natural communities have been recorded in the project area. However, there is a High Salinity Anchialine Pool nearby which may be a habitat for the *Opaeula* (Hawaiian Red Shrimp).

Office of Hawaiian Affairs (OHA)	
Contact:	Ms. Ululani Sherlock, Community Resource Coordinator
Address:	Office of Hawaiian Affairs
	162-A Baker Avenue
	Hilo, HI 96720
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing agency of the DEA publication sent.

State Conservationist, USDA, Natural Resources Conservation Service (NRCS)	
Contact:	Mr. Milton Martinez, Soil Scientist
Address:	P.O. Box 50004
	Honolulu, HI 96850
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing agency of the DEA publication sent.

2.3 COUNTY OF HAWAI'I

2.3.1 AGENCY LIST

Department of Environmental Management (DEM)
Department of Parks and Recreation
Department of Public Works
Department of Water Supply
Hawai'i County Council
Mayor Harry Kim
Planning Department

2.3.2 CONTACT INFORMATION AND SUMMARY

Department of Environmental Management (DEM)	
Contact:	Ms. Bobby Jean Leithead-Todd, Director
Address:	County of Hawai'i, Department of Environmental Management
	25 Aupuni Street, Room 210
	Hilo, HI 96720
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
7/30/2007	DEM response received.
Summary:	The DEM has no comments to offer at this time.
10/11/2007	Letter informing agency of the DEA publication sent.

Department of Parks and Recreation	
Contact:	Ms. Patricia G. Engelhard , Director
Address:	Aupuni Center
	101 Pauahi Street, Suite 6
	Hilo, HI 96720
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing agency of the DEA publication sent.

Department of Public Works	
Contact:	Mr. Bruce McClure, Director
Address:	Aupuni Center
	101 Pauahi Street, Suite 7
	Hilo, HI 96720
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing agency of the DEA publication sent.

Department of Water Supply	
Contact:	Mr. Milton Pavao, Department Head
Address:	345 Kekuanaoa Street, Suite 20
	Hilo, HI 96720
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing agency of the DEA publication sent.
10/26/2007	E-mail request for copy of the DEA, from Finn McCall.
10/29/2007	PDF copy of DEA mailed to DWS, as requested.
11/20/2007	Response letter received (12/5/2007). Refer to **Appendix A-2**.
Summary:	There is an existing 12-inch waterline within Akoni Pule Highway that serves Kawaihae Harbor. DWS' water system facilities cannot support the estimated 0.2 MGD demand at this time. Extensive improvements must be constructed to support the additional demand. Funding is not currently available from DWS, and the needed improvements are not scheduled to be done by DWS. In order to ascertain the water needs of the project, DWS recommends that a professional engineer licensed in the State of Hawai'i submit estimated maximum daily usage calculations for review and comment. Any water meter(s) serving the proposed project will require a reduced pressure type backflow prevention assembly installed within five (5) feet of the meter on the owner's property. The existing 12-inch waterline within the highway has a maximum capacity of approximately 3,522 gpm. Fire Dept. should be consulted if additional capacity is needed at the site for fire protection.
3/6/2008	Telephone conversation with DWS (Mr. Finn McCall). DWS requested water usage calculations for the work to be done at the harbor.
3/7/2008	Fax copy of water usage calculations sent to DWS for review.
3/17/2008	Based on the information provided, the estimated maximum daily water usage for this project is 2,685 gpd, which is equivalent to 5 units of water at 600 gpd per unit. Please resubmit the water usage calculations with the signature and stamp of the appropriate professional engineer licensed in the State of Hawaii, as required per our Rules and Regulations. As indicated on page 35 of the DEA, please include a map showing the location and meter number of the existing 2-inch meter that was proposed to serve the project. The Department must evaluate the historical water usage through that meter to determine if the meter size is adequate to accommodate the estimated additional flow. If the existing 2-inch meter can accommodated the additional flow and there was a sufficient amount of water allocated to that meter, water service may be granted. If the existing 2-in meter is to be utilized, a reduced pressure type backflow prevention assembly must be installed within 5 feet of the meter, unless there is an existing backflow prevention assembly installed.
4/1/2008	Response to DWS comments sent.
5/2/2008	Response letter received (5/13/2008). Refer to **Appendix A-2**.
Summary:	We have reviewed the subject water usage calculations and map showing the location of the proposed water connection. Based on the information provided, the total estimated maximum daily water usage for the subject project is 2,685 gpd, which is equivalent to 5 units of water at 600 gpd per unit. We have confirmed the existing 2" meter that will serve the subject project is under the name of DLNR, and that there is an existing backflow prevention assembly connected to that meter. The installation of a new backflow prevention assembly will not be necessary. Prior to granting water service for the proposed project, remittance of the prevailing facilities charge, which is subject to change, is required. Based on the 5 additional units of water needed, the prevailing facilities charge due is $27,500.00.

Hawai'i County Council	
Contact:	Mr. Pete Hoffman, Council Chair
Address:	64-1067 Mamalahoa Hwy, Suite C-5
	Kamuela, HI 96743
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing agency of the DEA publication sent.
10/18/2007	Phone call request for copy of the DEA
10/22/2007	Pdf copy of DEA mailed to Waimea County Office, as requested.

Mayor Harry Kim	
Contact:	Mayor Harry Kim
Address:	25 Aupuni Street, Room 215
	Hilo, Hawai'i 96720
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
7/23/2007	Mayor Kim's response received.
Summary:	Take into account the hazards (especially high wind) during the design and try to mitigate the impacts as best as possible. Try to design the harbor to accommodate fisherman. Make the harbor children friendly. Landscape the area to add to the aesthetics and also mitigate high wind and runoff.
10/11/2007	Response letter to comments and copy of DEA sent.

Planning Department	
Contact:	Mr. Chris Yuen, Department Head
Address:	Aupuni Center
	101 Pauahi Street, Suite 3
	Hilo, HI 96720
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
8/13/2007	Letter response received.
Summary:	The subject parcel appears to the designated Open, Industrial, and Medium Density Urban. The project area appears to be Open. The State Land Use designation is Urban. County zoning is General Industrial (MG-1a), Open (O) and Multiple Family Residential (RM-1.5). Yacht harbors and boating facilities are permitted uses in the General Industrial district. The Planning Commission approval of a Use Permit is required for a yacht harbor and boating facilities in the Open and Multiple-Family Residential districts. The subject parcel is in the County's SMA. The proposed improvements mauka of the shoreline will require either a SMA Minor Permit or a SMA Major Use Permit. Depending on the type of improvements or activities within the 40' shoreline setback area, a Shoreline Setback Variance may be required. All activities makai of the shoreline are outside the jurisdiction of the County. Plan approval is required prior to the construction of any new structure.
10/11/2007	Response letter to comments and copy of DEA sent.

Planning Department (Cont'd)	
10/30/2007	Letter response received.
Summary:	Figure 5-5 refers to the State Plan Use map. The County General Plan is Figure 5-6. The project site does not include the "General Industrial" designation. A "Use Permit" is required to establish the proposed use for Open (O) zoning. The list of required permits should include the County of Hawai'i Use Permit. The discussion on County permits should include the SSV and Plan Approval requirements. Continuous lateral shoreline access should be addressed separately from Recreational Resources and Beach Protection. The *Location Map* should be revised to denote this pathway. Clarify statement on page 55: "The proposed action is not anticipated to negatively affect the operation of or access to the surf park beyond the construction period." Alternate safe and traversable vehicular and pedestrian access routes must be established.

2.4 COMMUNITY

2.4.1 ORGANIZATION LIST

Hawai'i's 1000 Friends
Historic Hawai'i Foundation
Hui Malama I Na Kupuna O Hawai'i Nei
Kawaihae Boating Association
Kohala Trollers Club
The Nature Conservancy
The Outdoor Circle
Pua Ka Ilima 'O Kawaihae Cultural Surf Park, Inc.
University of Hawai'i at Manoa Department of Oceanography
University of Hawai'i at Manoa Environmental Center
University of Hawai'i at Manoa Water Resources Research Center
Waimea-Kawaihae Community Association

2.4.2 CONTACT INFORMATION AND SUMMARY

Big Island Buyer's Brokers-High Country Traders 201	
Contact:	Bill Jardine
Address:	65-1291 Kawaihae Road Kamuela, HI 96743
3/3/2008	Letter received
Summary:	The current design locates the trailer parking in an exceedingly difficult location for the drivers of those trucks and trailers. In its current location the design will require the drivers to reverse their truck/trailer rigs in at least a 180-degree arc in order to retrieve their boats at the boat ramp. This is very difficult for even an experienced driver to accomplish and can be very dangerous as well. The trailer parking needs instead to be located along the northern boundary of the property, where the 30' access road is currently designed. If the roadway and the trailer parking are reversed it will help immensely. It appears that the reason that the trailer parking was located so poorly was that the design team saw the need to meet ADA requirements in the chance that a disabled person wanted to launch a trailer boat at the facility. Perhaps allowing this but limiting the parking to one or two vehicles with trailers would suffice.3 You will create a failed project by allowing just two boat wash-down spigots for this project. Kawaihae small Boat Harbor, which is all ready over-crowded, features six (6) wash-down spigots, and even humble little Puako Small Boat harbor has four (4) spigots for this purpose. The creation of just two boat wash-down spigots for this much larger facility is a guaranty of failure for this project. My understanding is that the design team is working within the restrictions of utilizing the existing 2" water line and the projected demands of slip tenants for fresh water spigots. I note that there is a far greater number of slips as well as many more wash-down spigots utilizing an even smaller fresh water line at Honokohau Harbor today
10/11/2007	Response letter to comments sent.

Hawaii's 1000 Friends	
Contact:	Donna Wong, Executive Director
Address:	25 Maluniu Avenue, Suite 102#282
	Kailua, HI 96734
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing organization of the DEA publication sent.

Historic Hawai'i Foundation	
Contact:	Ms. Kiersten Faulkner, Executive Director
Address:	680 Iwilei Road, Suite 690
	Honolulu, HI 96817
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing organization of the DEA publication sent.

Hui Malama I Na Kupuna O Hawai'i Nei	
Contact:	Mr. Edward Halealoha Ayau
Address:	Hui Malama I Na Kupuna O Hawai'i Nei
	P.O. Box 190
	Haleiwa, HI 96712
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing organization of the DEA publication sent. Letter returned.

Kawaihae Boating Association	
Contact:	Mr. Doug Carr, President
Address:	P.O. Box 44652
	Kamuela, HI 96743
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing organization of the DEA publication sent.

Kohala Trollers Club	
Contact:	Director
Address:	P.O. Box 1597
	Kamuela, HI 96743
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing organization of the DEA publication sent.

The Nature Conservancy	
Contact:	Mr. Jeff Mikulina, Director
Address:	923 Nuuanu Avenue
	Honolulu, HI 96817
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing organization of the DEA publication sent.

The Outdoor Circle	
Contact:	Ms. Kathy Whitmire, President
Address:	1314 South King St., Suite 306
	Honolulu, HI 96814
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing organization of the DEA publication sent.

Pua Ka Ilima O Kawaihae Cultural Surf Park, Inc.	
Contact:	Mr. Billy Mitchell, President
Address:	P.O. Box 1725
	Kamuela, HI 96743
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
7/20/2007	Response received.
Summary:	In favor of the improvements shown on the schematic plan, especially the comfort station. Please preserve access to the surf park area.
10/11/2007	Response letter to comments and copy of DEA sent.

UHM Department of Oceanography	
Contact:	Director
Address:	1000 Pope Road, Rm. 229
	Honolulu, HI 96822
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing organization of the DEA publication sent.

UHM Environmental Center	
Contact:	Dr. John T. Harrison, Ph.D., Environmental Coordinator
Address:	2500 Dole St., Krauss Annex 19
	Honolulu, HI 96822
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing organization of the DEA publication sent.

UHM Water Resources Research Center	
Contact:	Director
Address:	2540 Dole St., Rm. 283
	Honolulu, HI 96822
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing organization of the DEA publication sent.

Waimea-Kawaihae Community Association	
Contact:	Director
Address:	P.O. Box 685
	Kamuela, HI 96743
7/11/2007	Consultation Request Letter sent, refer to **Appendix A-1**.
	Response not received by the 30-day deadline.
10/11/2007	Letter informing organization of the DEA publication sent.

SECTION 3

PROJECT DESCRIPTION

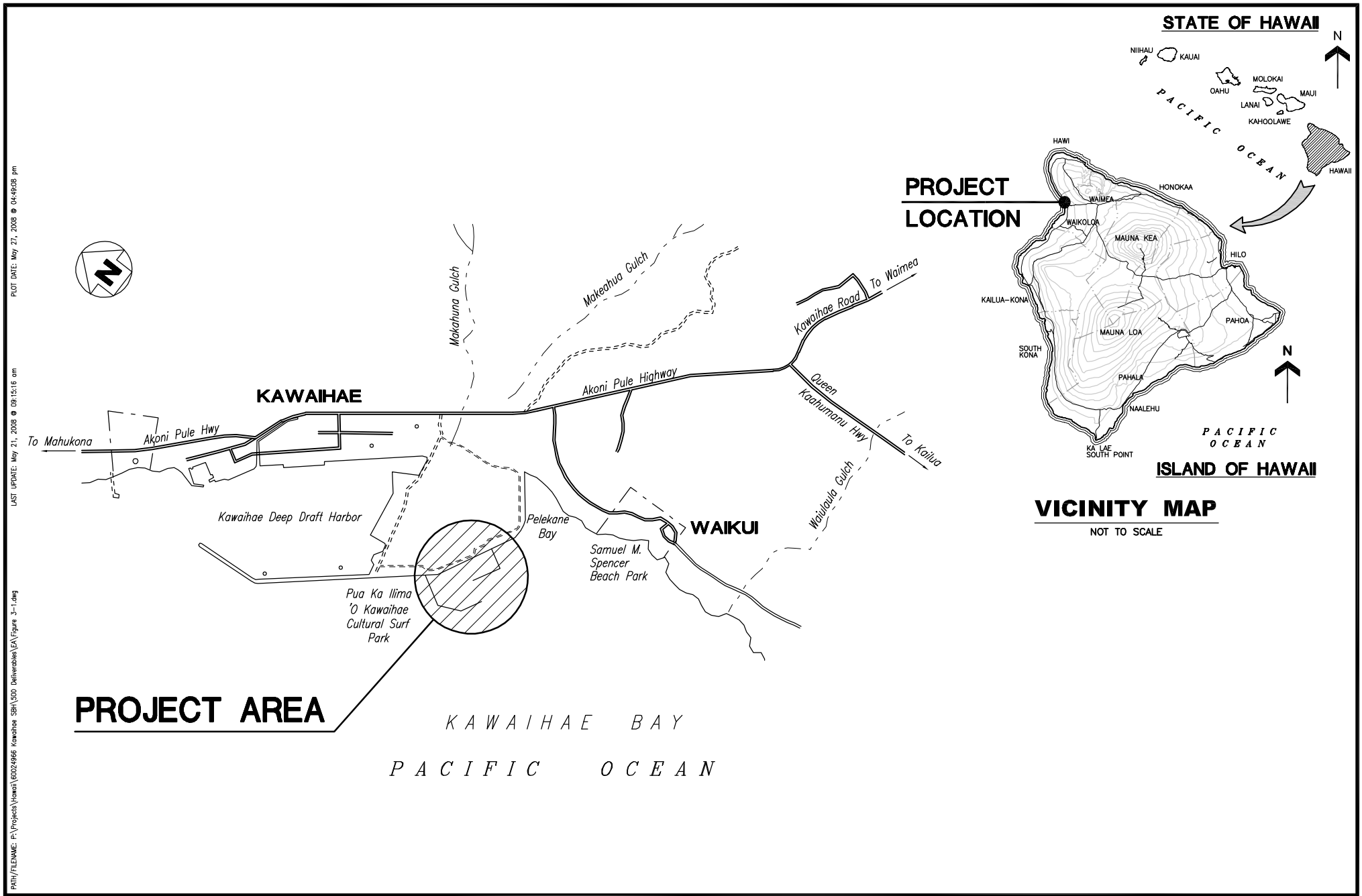
3.1 PROJECT NEED AND OBJECTIVE

The existing Kawaihae Small Boat Harbor (SBH) (South), hereafter referred to as the Kawaihae SBH (South), does not have permanent harbor facilities. Presently, light-draft vessel users in the Kawaihae boating community utilize a small basin located at the northwestern end of the Kawaihae Deep-draft Harbor (DDH) near the harbor mouth. This basin, also referred to as the Kawaihae Small Boat Harbor (North), includes a trailer boat launch ramp, loading docks, a fixed wooden dock, comfort station, parking, boat wash down, and limited berthing for small boats. The small basin is insufficient for complete operations of light-draft vessels. In its current condition, only manually-propelled water vessels and small powerboats are capable of using the small basin due to the shallow basin depth and limited maneuvering room.

The Kawaihae DDH is currently being used by approximately 23 light-draft vessels; however, the recent increase in use of the DDH and interference of the small boats with large commercial vessels necessitates the termination of the existing small boating operations at the DDH basin and the development of a separate small boat harbor dedicated for service to light-draft vessel movements and activities. The State of Hawai'i Department of Land and Natural Resources (DLNR) Division of Boating and Ocean Recreation (DOBOR) is proposing to improve and develop a portion of the existing Kawaihae SBH (South) to service light-draft watercraft operations in the tributary area. At this time, approximately 23 light-draft vessels need to be relocated from the Kawaihae DDH to the Kawaihae SBH (South) with this phase of the planned harbor development. This amount will increase to about 40 vessels in the future project phases.

This Environmental Assessment (EA) discusses possible environmental impacts the proposed project may have to the existing site and mitigative strategies at the project location. The proposed development covered in this EA represents the <u>first phase</u> of the Kawaihae SBH (South) development. The information discussed in this document is based upon the findings presented in previous studies and reports of Kawaihae SBH (South), including the approved Final Environmental Impact Statement (EIS) originally prepared for the full harbor development (1985) and the approved Final EA prepared for the improvement and extension of the existing breakwaters (1994) as discussed in the following section.

See **Figure 3-1**, Location Map for project site location.



PATH/FILENAME: P:\Projects\Hawaii\60024966 Kawaihae SBH\500 Deliverables\EA\Figure 3-1.dwg

LAST UPDATE: May 21, 2008 @ 09:15:16 am

PLOT DATE: May 27, 2008 @ 04:49:08 pm

M&E Pacific, Inc.

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LOCATION MAP

NOT TO SCALE

Figure 3-1
Location Map
Environmental Assessment for the
Kawaihae Small Boat Harbor (South) Improvements, Phase 1
May 2008

3.2 PROJECT HISTORY AND DESCRIPTION

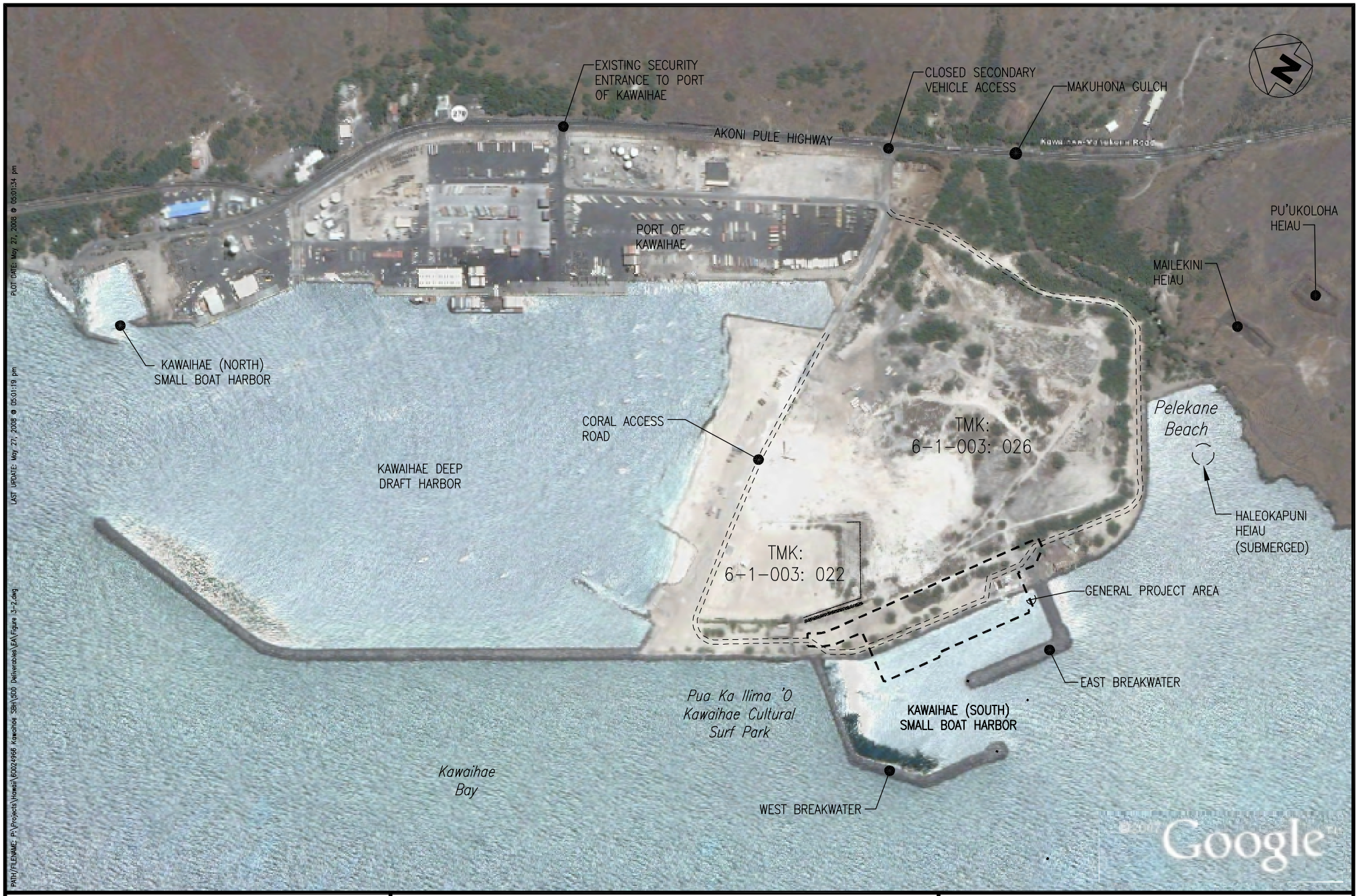
3.2.1 PROJECT HISTORY

The Kawaihae Deep-draft Harbor was constructed in 1959 without a light-draft component by the U.S. Army Corps of Engineers (USACE) pursuant to Section 101 of the National Rivers and Harbors Act, 17 May 1950. Construction of a harbor for light-draft vessels was authorized by Section 301 of the River and Harbor Act of 27 October 1965. A General Design Memorandum was submitted by the USACE in March 1968 indicating the authorized small boat harbor at the southern end of the Deep-draft Harbor. However, the State of Hawaiʻi requested that the Light-draft Harbor be relocated from the authorized site within the Deep-draft Harbor to a location immediately south of the existing revetted fill area for the Deep-draft Harbor where the existing coral reef would provide considerable natural protection from waves.

In 1969, the USACE planned "Project Tugboat" to widen the relocated harbor's entrance channel and its basin, extend the existing breakwater, and construct the small boat harbor adjacent to the deep-draft harbor for light-draft vessels. The U.S. Army Engineer Nuclear Cratering Group completed construction of the existing (west) 850' long breakwater, the 120'-wide, 12'-deep, 850'-long entrance channel and the 1.2-acre, 12'-deep basin as part of Project Tugboat in December 1970. Pursuant to the National Environmental Policy Act (NEPA) of 1970, a Final Environmental Statement (ES) was filed with the Environmental Protection Agency (EPA) in 1971 for this work.

An Environmental Assessment (EA) was prepared in October 1975 to evaluate the results of current and oceanographic studies in the area, as well as other comprehensive environmental, archaeological, and hydrological studies conducted in the region following the 1971 ES. An Information Supplement to the Final Environmental Statement was filed with the EPA in 1978 to incorporate information from the initial ES and the subsequent EA.

In 1984, The State of Hawaiʻi Department of Transportation Harbors Division (DOT-Harbors), with support of the USACE, developed a general design of further development to Kawaihae SBH (South). This development plan described the infrastructure the State intended to develop for the light-draft harbor. An Environmental Impact Statement (EIS) was prepared and accepted in 1985 for the full small boat harbor development (**Appendix C**). In 1991, it was decided to reduce the original 300-boat harbor described in the EIS to a 90-boat harbor due to economic and social concerns. An EA was prepared and submitted for the Federal portion of the small boat harbor construction; specifically the extension of the west breakwater with a revetted mole, and the construction of an east revetted mole with a connecting breakwater for 90 commercial small crafts (**Appendix D**). The Final EA was approved in December 1994 with recommendations for appropriate mitigation for environmental effects, and a Finding of No Significant Impact (FONSI) to the harbor site. Construction of the west breakwater extension and east revetted mole with connecting breakwater was completed in July 1998. The on-shore improvements were transferred to the DLNR-DOBOR in July 1998, while the off-shore improvements, including the breakwaters and revetted mole remain the property of the USACE. The general existing condition of the Kawaihae Harbor area is presented in **Figure 3-2**, and the existing condition of the project site is presented in **Figure 3-3**.



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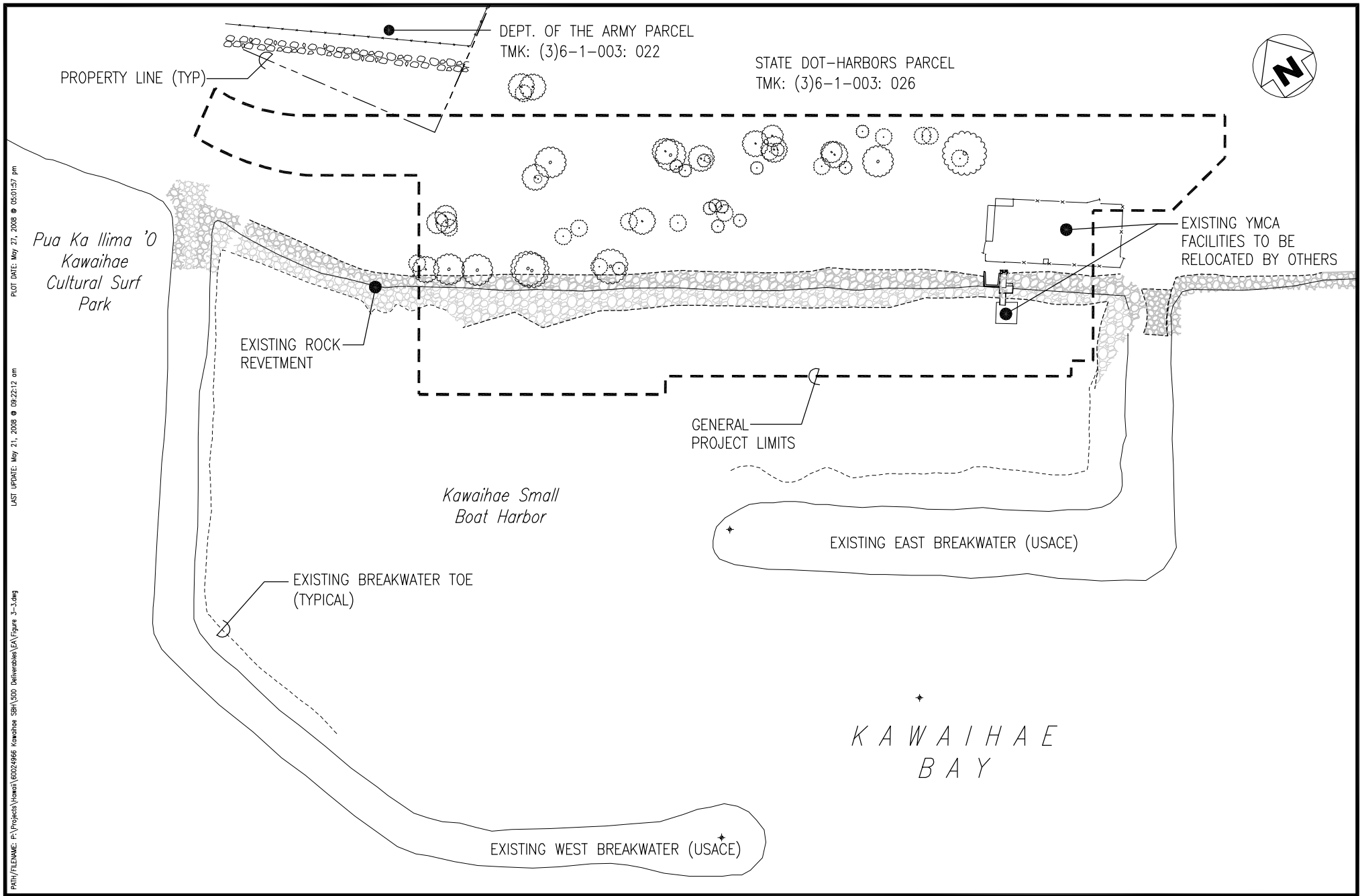
GENERAL EXISTING PROJECT SITE

NOT TO SCALE

Figure 3-2
GENERAL EXISTING PROJECT SITE
Environmental Assessment for the
Kawaihae Small Boat Harbor (South) Improvements, Phase 1
May 2008



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EXISTING PROJECT SITE

NOT TO SCALE

Figure 3-3
EXISTING PROJECT SITE
Environmental Assessment for the
Kawaihae Small Boat Harbor (South) Improvements, Phase 1
May 2008

The U.S. Army Engineer District, on behalf of DLNR, contracted M&E Pacific, Inc. to prepare a Master Plan for the Kawaihae SBH (South), which was finalized and accepted in December 2003. The Master Plan evaluated several layout alternatives for the further development of the harbor's boating facilities, to be constructed by DLNR. Based upon the result of several public hearings and consultation with DLNR-DOBOR, the Alternative 2 layout was selected as the recommended master plan layout, with the understanding that the basin docks will be constructed in phases. The Master Plan recommended layout is presented in **Figure 3-4**.

Since the acceptance of the Master Plan in 2003, DLNR-DOBOR re-evaluated the pier layout configuration and determined that it would be most beneficial to the Kawaihae boating community to provide finger piers along the main floating dock, rather than the "branched" piers in the recommended layout. The finger pier configuration (Alternative 1 in the Kawaihae SBH Master Plan) will allow a greater number of water craft to berth within the Small Boat Harbor with the anticipated available funds, and this preferred arrangement is not anticipated to worsen the boats' maneuverability as they dock in the harbor basin. Therefore, at full project build-out, the Kawaihae SBH (South) will provide a main floating dock along the existing revetted coastline with finger piers, a concrete three-lane boat launch ramp, loading docks, accessible boat trailer parking in near proximity to the boat launch ramp, accessible comfort stations, buildings for a Boat Club, retail shops, restaurants and administration space, ice-fish storage and fuels docks, and approximately 318 parking spaces to support future growth and development in the Kawaihae SBH (South). The fully completed small boat harbor will also include a 150' x 150' fenced-in enclosure, as proposed by the Division of Conservation and Resources Enforcement (DOCARE), to be used for a trailer and boat and equipment storage.

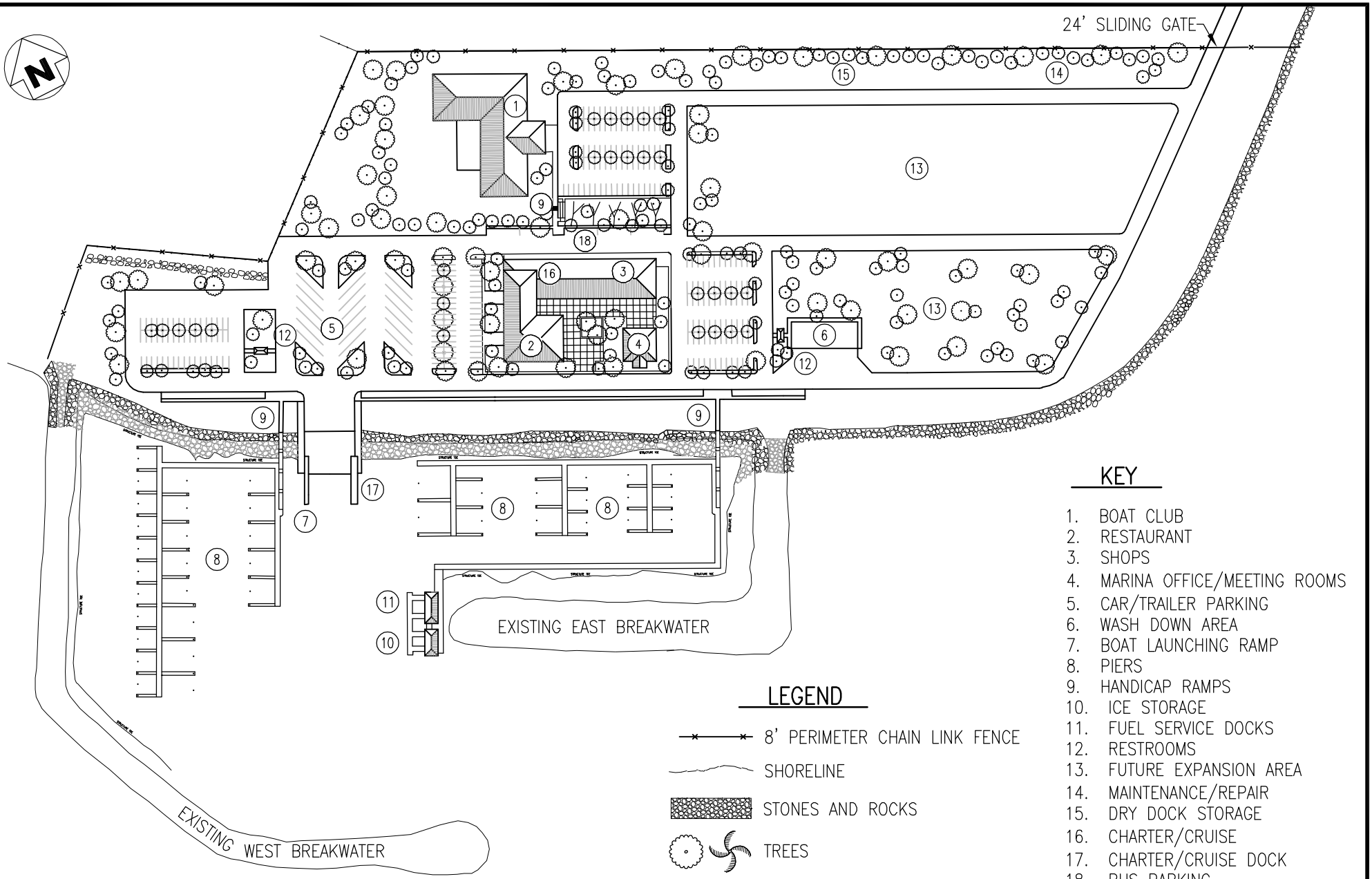
This document utilizes relevant data from the previous studies and reports, comments to the Final EIS of 1985 and Environmental Assessment of 1994, and data from studies performed for this project.

3.2.2 PROJECT DESCRIPTION

M&E Pacific, Inc. was contracted by the State of Hawai'i Department of Land and Natural Resources Engineering Division in May 2007 on behalf of DLNR-DOBOR to design and construct the first phase of the boating facilities at the Kawaihae SBH (South) (DLNR Job No. B10CH70A).

The proposed project will install the first phase of the full harbor development. Project plans include the construction of a concrete three-lane boat launch ramp with loading docks on either side, a main floating dock adjacent to the existing revetment, mooring blocks, a comfort station on the west side of the Kawaihae SBH (South), an outdoor shower, a vehicle parking area, a boat trailer parking area, and a boat wash down area. Work will also include the installation of an individual wastewater system, water service to the comfort station and wash down area, electrical service to the comfort station, site lighting, realignment of the existing coral access road, grading and drainage for the parking areas, grading and drainage for realignment of the unpaved vehicle access through the project site, and other miscellaneous signage, grading, and drainage as required.

An accessible route will be provided for access to the proposed facilities. Accessible parking will be provided near the comfort station and an accessible boat trailer parking space will be provided near the boat ramp. An accessible boat wash down station will also be provided under this project.



Ref.: Master Plan for Kawaihae Small boat Harbor (South), Dec. 2003

PATH/FILENAME: P:\Projects\Hawaii\60024966 Kawaihae SBH\500 Deliverables\EA\Figure 3-4.dwg LAST UPDATE: May 22, 2008 @ 02:33:36 pm PLOT DATE: May 27, 2008 @ 05:02:14 pm

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RECOMMENDED MASTER PLAN LAYOUT

NOT TO SCALE

Figure 3-4
RECOMMENDED MASTER PLAN LAYOUT

Environmental Assessment for the
Kawaihae Small Boat Harbor (South) Improvements, Phase 1
May 2008

3.3 PROJECT COST AND DURATION

Projected construction costs for the project are anticipated to be approximately $3.5 million. This project is wholly funded by the State of Hawai'i.

3.4 PURPOSE OF ENVIRONMENTAL ASSESSMENT

This EA results from the use of State lands and funds, and the location of the project site within the shoreline setback (approximately 40' from the shoreline) and Special Management Area (SMA).

In accordance with Chapter 343 of the Hawai'i Revised Statutes and the Department of Health's Hawai'i Administrative Rules Title 11-200, an Environmental Assessment (EA) is required to provide a written evaluation of environmental, technical, social, and economic aspects of the proposed Kawaihae Small Boat Harbor (South) Improvements. The EA identifies potential project impacts and their significance, and develops strategies to mitigate those impacts. The EA then compares all aspects and impacts against 13 significance criteria listed in §11-200-12 to provide a determination as to whether an Environmental Impact Statement (EIS) is required.

The EA process includes periods of public review, in which the affected community may voice their comments and concerns to the proposed work. If the EA establishes that the proposed activity will not affect the surrounding environment to a significant degree, the agency will issue a Finding of No Significant Impact (FONSI). Should the analysis indicate that a significant impact will be experienced due to the proposed activity, the agency must then prepare an EIS, which is a more detailed evaluation of the proposed action and alternatives.

As an EIS for the full harbor development was prepared and accepted in 1985, this document will update and further define details of the components included as part of this Phase 1 development.

3.5 ALTERNATIVES CONSIDERED

3.5.1 NO ACTION ALTERNATIVE

The "No Action" alternative entails the option to refrain from providing any type of repair, replacement, or improvement work at the existing Kawaihae SBH (South). Therefore, this alternative will not incur any physical or social effects on the environment, and would not require further costs for planning, design, and construction by the State.

This project is part of the State's Master Plan for the Kawaihae SBH (South), and is proposed because the current condition of Kawaihae SBH (South) lacks harbor facilities, and the existing light-draft facilities at a small basin near the mouth of the Kawaihae Deep-draft Harbor are not sufficient to accommodate the needs of the various types of light-draft vessels utilizing the tributary area. The size and depth of the basin limits its use to small powerboats and manually propelled water vessels, while the increase in tourist facilities in South Kohala has generated an increased number of smaller commercial vessels (e.g. charter fishing boats) in the Kawaihae area. The light-draft vessels are presently moored in the Deep-draft Harbor where they interfere with the large commercial vessel operations and create an unsafe environment for all harbor users.

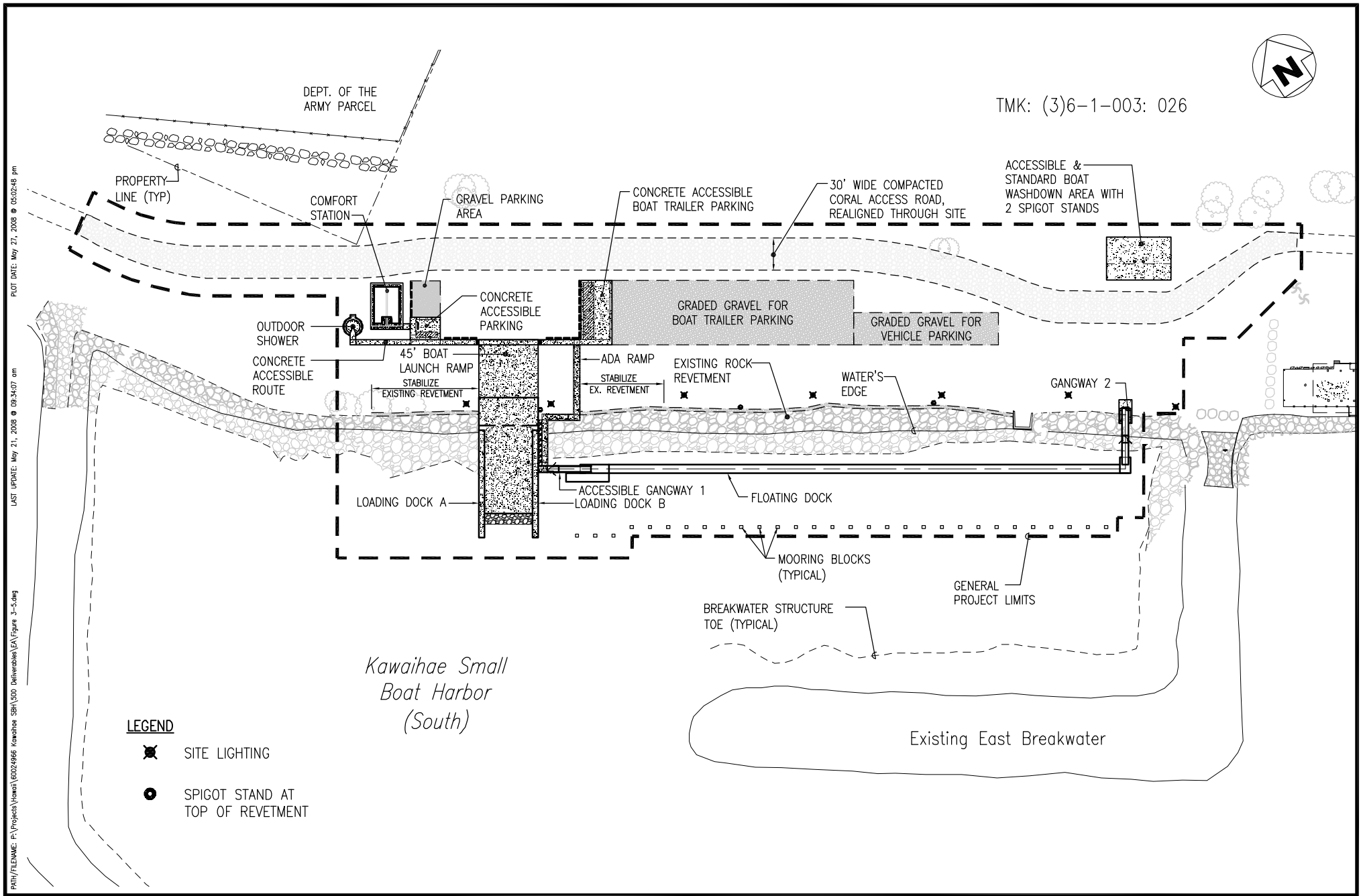
There is a clearly identified need to provide improved boating facilities at the Kawaihae SBH. The benefits from providing the proposed improvements are greater than any negative issue identified in this EA. Therefore, the "No Action" alternative is not the preferred alternative.

3.5.2 CONSTRUCTION OF PHASE 1 BOATING FACILITIES ALTERNATIVE

The preferred alternative is to construct a portion of the planned boating facilities for the Kawaihae SBH (South). This project proposes to construct facilities to provide a 45-feet wide, concrete three-lane boat ramp with Americans with Disability Act (ADA) access to one (1) of the two (2) fixed loading docks, a main floating dock with an accessible gangway and mooring blocks to berth approximately 30 boats, boat wash down area, various parking areas, a comfort station with an individual wastewater system and outdoor shower, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous signage, grading and drainage as required.

The proposed improvements will provide the Kawaihae boating community with sorely needed and anticipated harbor facilities and amenities for light-draft boaters. More importantly, construction of the Phase 1 boating facilities will remove the light-draft vessels from interfering with the commercial traffic within the Kawaihae Deep-draft Harbor, where many of them are currently moored.

This is the recommended alternative as it is a responsible action to increase and improve the safety and accessibility of the Kawaihae SBH (South) for light-draft vessels, and is the most practical and expeditious of those options considered. Further discussion on the need and benefits of the proposed project is provided in the previous portions of this EA. Ultimately, construction of the proposed facilities will serve to provide the Kawaihae boating community a much needed and anticipated environment for safe and convenient light-draft vessel users. The Schematic Site Plan is presented in **Figure 3-5**.



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CONCEPTUAL SITE PLAN

NOT TO SCALE

Figure 3-5
CONCEPTUAL SITE PLAN
Environmental Assessment for the
Kawaihae Small Boat Harbor (South) Improvements, Phase 1
May 2008

SECTION 4

DESCRIPTION OF ACTION'S TECHNICAL, ECONOMIC, SOCIAL, AND ENVIRONMENTAL CHARACTERISTICS

4.1 TECHNICAL

The Kawaihae SBH (South) currently consists of a small basin that is protected by a pair of East and West breakwaters and a shoreline revetment, as shown on **Figure 3-3** and photos in **Appendix E**. The West breakwater is the larger of the two structures, which were extended to their existing condition in June 1998. Currently, a few watercraft owners anchor their vessels sporadically throughout the basin.

Other existing structures and features at the Kawaihae SBH (South) include an unpaved, white coral and gravel vehicular path and clearing, a fenced area for equipment and boat storage, a pair of open pavilions, a small concrete rubble masonry (CRM) lookout platform with handrails, a small boat loading dock, and a small floating dock. Most of these structures are owned and were installed by the Young Men's Christian Association (YMCA) for organized aquatic activities. YMCA installed their facilities with the knowledge that they would be demolished to accommodate the development of the Kawaihae SBH (South) by the State of Hawai'i. Per their agreement with DLNR, YMCA will relocate their facilities to allow for the construction of the proposed harbor improvements prior to the project construction.

The Kawaihae Small Boat Harbor (South) Improvements, Phase 1 project will install basic harbor facilities and amenities to make the Kawaihae SBH (South) more accessible to light-draft boaters within the community. This phase of the project consists of the design and construction of a fixed concrete boat launch ramp with ADA access to one (1) of two (2) fixed loading docks, a main floating dock with accessible pedestrian ramp and gangway, grading and drainage for vehicle and boat trailer parking areas, grading for the realignment of the vehicle access through the project site, a boat wash down area, a comfort station with an individual wastewater system and outdoor shower, water and electrical service installation to the comfort station, and other miscellaneous signage, site lighting, grading and drainage as required.

This project proposes to construct a 45-foot wide, concrete three-lane boat launch ramp with loading docks on either side of the ramp. The boat launch ramp will be designed with an adequate maneuvering area to allow boaters to easily align the boat and trailer to enter the water parallel to the loading docks. The dimensions and sloping of the boat ramp will be sufficient to easily launch boats of various sizes.

A portion of the concrete boat launch ramp will be installed under water to provide proper ramp slopes to facilitate the easy and convenient boat launching of a variety of light-draft vessels from typically used boat trailers. The toe of the boat ramp will be protected from erosion and scouring by a CRM edge with a 6-inch thick sacked sand/cement riprap cover. The submerged portion of the concrete boat ramp will be pre-cast while the remaining portion of the concrete boat ramp may be pre-cast or cast-in-place concrete. The boat ramp will be supported by grouted boulder fill, a portion of which will be placed under water.

Loading docks A and B located on either side of the boat launch ramp will be designed to allow for easy passenger loading into the light-draft vessels. One loading dock will be accessible, and will connect to the on-shore facilities via an accessible concrete pedestrian ramp. Both loading docks will be 5-feet wide, which is sufficient to service small commercial boats as well as personal recreational boats. The loading docks will be installed at a top elevation of 4.0 feet mllw[1]. These concrete loading docks will be raised over the harbor water surface, and supported by concrete piles below the dock platform. A portion of these piles will be submerged under water. The piles may be driven from both land-side and from the harbor-side via a pile driver mounted on a barge.

An approximately 550-foot long, 8-foot wide main floating dock will be placed parallel to and along the existing rock revetment, and will float atop the harbor water surface. The top of the floating dock will float approximately 2 feet above the harbor water surface to provide for appropriate freeboard. The floating dock will be connected to concrete piles installed *mauka* (land-side) of the floating dock and along the existing revetment. A portion of the piles will be submerged underwater, and will be installed from the land-side. These piles may also be driven from both land-side and from the harbor-side via a pile driver mounted on a barge. The concrete pile connection will be designed to minimize the horizontal movement of the floating dock and to allow the floating dock to move up and down with tidal fluctuations. The floating dock will be accessible and will be designed to accommodate the future installation of finger piers and utility services (water and electric service) along the floating dock.

For this phase of the project, mooring blocks with buoys will be provided along the length of the floating dock to provide berthing stalls for approximately 30 light-draft vessels. The mooring blocks will be placed along the harbor floor and connected to a chain and buoy to allow harbor users to berth their vessels in a "Tahitian" mooring style. The mooring blocks will eventually be used in conjunction with the permanent finger piers to be installed during a future phase of the project.

Observation and an evaluation of the existing revetment in July 2007 indicated that a portion of the revetment was disturbed from its original position, due in part to typical settling and to a 6.7-magnitude earthquake that occurred in October 2006, approximately 20 miles to the southwest of the Kawaihae SBH (South). Portions of the existing revetment on either side of the proposed boat launch ramp will be stabilized as part of the project construction to correct some of the observed boulder displacement. Stray boulders along the toe of the revetment will be repositioned back into place as necessary. This stabilization work will help to protect the boat ramp, loading docks, and accessible pedestrian ramp from significant damage should another earthquake event occur, and will help to prevent future maintenance problems along this portion of the revetment.

Areas for vehicular parking and boat trailer parking will be constructed as part of this project phase. A graded gravel area for vehicular parking and a paved accessible parking stall will be provided near the proposed comfort station. Boat trailer parking near the boat ramp will consist of a graded gravel area and a paved accessible boat trailer parking. The areas above and below the trailer parking location will be sufficiently graded to allow trailers to enter or exit from either side of the parking area. Fully-paved vehicular and trailer parking will be constructed during a future phase of the Kawaihae

[1] Depths and elevations within this report are referenced to the mean lower low water (mllw) datum, unless otherwise specified.

SBH (South) Improvement Project. Additional parking areas will be provided in the full harbor build-out.

A boat wash down area will be provided in this project phase as requested by harbor users. Two (2) double-spigot pedestal stands will be provided to allow for four (4) wash down connections. This proposed wash down area may be relocated when the permanent wash down facility is constructed under a future phase of the project. An accessible wash down station will be provided.

Harbor users have requested that a water source be provided to allow users to wash down larger boats without removing them from the water. Therefore, several stand-alone water spigots will be provided periodically along the top of the revetment and aside the boat launch ramp to allow users to connect their wash down hoses. These proposed spigots will serve as temporary water sources until permanent water service lines to the floating dock are provided under a future phase of the project.

An accessible comfort station will be constructed as part of this project phase. The comfort station will be well ventilated, use low maintenance finishes, and will include an outdoor rinsing shower. There are no existing sewer utilities or sewer connections within the project area; therefore, wastewater from the comfort station will be disposed of via an individual wastewater system (IWS). The IWS will be comprised of a septic tank, distribution system, and an absorption bed (leachfield). Non-degradable or slowly degradable material will be stored in a single large septic tank while wastewater supernatant is disposed of via the absorption bed. Security lighting will be provided in and around the comfort station, and will be controlled by a photoelectric cell sensor.

Site lighting will be provided at the boat launch ramp and at the pedestrian access ramps to the floating dock. Lighting along the floating dock will be provided in a future phase of the project.

Additional facilities to be constructed in this phase will include an accessible floating dock and gangway, a secondary gangway at the east side of the floating dock, an accessible loading dock, as well as accessible routes connecting other accessible areas.

The proposed facilities will conflict with the existing vehicle coral access road through the project site. Therefore, in order to maintain through access along this portion of the Kawaihae SBH (South), the existing access road will be realigned to direct traffic *mauka* of the proposed facilities as shown in **Figure 3-5**. The proposed realigned road will be constructed of compacted crushed coral and will be located to provide easy access to the boat launch ramp, parking areas, and boat wash down area. The realigned road will remove the vehicular traffic from the main pedestrian access routes. A paved through access road will be provided under a future phase of the project.

Construction of the proposed facilities will include the clearing and grubbing of the project area and site grading activities. The Contractor will be instructed to conduct the clearing and disposition of the cleared and excavated materials appropriately, as per the applicable Federal, State, and County regulations. Demolition of hazardous materials is not anticipated at this project site.

As the focus of this phase is to allow the greatest number of boaters to utilize the Kawaihae SBH (South) possible, funds will be directed toward providing basic, useable hardscape harbor features under this project. Landscaping activities will not be done at

this time, except for landscaping needed for erosion control; however, landscaped areas are a part of the overall Master Plan for the Kawaihae SBH (South), and will be completed under future phases of the project.

The Department of Transportation, Harbors Division (DOT-Harbors) is considering the transferal of ownership of a portion of the land to DLNR-DOBOR. Currently, DOT-Harbors proposes to transfer a 10-acre area to DLNR-DOBOR; however, DLNR-DOBOR desires a larger transfer area. This land transfer is currently under discussion with DOT-Harbors and DLNR-DOBOR, and has not been finalized at this time.

4.2 ECONOMIC

This project is entirely funded by the State of Hawai'i. This project is not anticipated to cause an increase in taxes to the general public. The installation of the proposed harbor facilities shall provide DNLR-DOBOR with the opportunity to charge a mooring fee for boaters who wish to berth their vessels within the Kawaihae SBH (South). Income generated from this fee may help to offset the maintenance and operating costs for the Kawaihae SBH (South).

4.3 SOCIAL

The proposed project will provide boating facilities for light-draft vessels at the Kawaihae SBH (South). The improvements to be done under this project phase will allow a greater number of light-draft vessels to utilize the harbor and will remove the light-draft vessels from the adjacent DDH where they currently interfere with commercial boat movements and create a dangerous condition for vessels within the DDH. Separation of the commercial and recreational movements will greatly increase public safety for all boaters in the area. Construction of this project will provide residents and visitors with a safe and accessible environment with a dedicated use for recreational boating, fishing, and other water activities. Comments received at several public informational meetings held during the 2003 Master Plan preparation phase of this project, and in the 2007 Draft EA phase, indicated that the Kawaihae boating community is in support of the proposed project, and is anxious for the planned facilities to be constructed.

4.4 ENVIRONMENTAL

As presented in the 1985 Final EIS, the 1994 Final EA, and the discussion in the subsequent sections of this Environmental Assessment, construction of the proposed Kawaihae SBH (South) facilities is not anticipated to adversely affect the overall environmental quality of the area. Potential impacts to the environmental integrity of the project site, the Federal waters (i.e. the Pacific Ocean), and the surrounding areas will be sufficiently mitigated through appropriate design methods, site grading and drainage features, the use of site-specific Best Management Practices (BMPs), the use of proper erosion control methods, environmentally-conscious construction methods, and the harbor's operations by DLNR-DOBOR.

Short-term construction related impacts are expected from this project. These impacts and the recommended approaches to mitigate their effects are discussed in the following sections of this EA.

No long-term adverse impacts due to the Kawaihae SBH (South) Improvements, Phase 1 project are expected. These issues are examined in detail in the subsequent sections of this EA.

SECTION 5

AFFECTED ENVIRONMENT, ANTICIPATED EFFECTS, AND PROPOSED MITIGATIVE MEASURES

5 AFFECTED ENVIRONMENT

5.1 PHYSICAL

5.1.1 LOCATION

The Kawaihae SBH (South) is located on the northwestern coast of the Island of Hawaiʻi. Kawaihae is a part of the South Kohala District, and the Kawaihae SBH (South) is identified as the State of Hawaiʻi Third (3rd) Tax Division, Tax Map Key (TMK) 6-1-003: Portion (Por.) 026. The North and South Kohala, Hamakua, and North Kona Districts constitute the tributary area for the Kawaihae SBH (South).

The Kawaihae SBH (South) is located on the northern portion of Kawaihae Bay, and occupies the southern section of a small in-filled peninsula that lies between the commercial Kawaihae DDH to the north and the County-operated Samuel M. Spencer Beach Park to the east. Three heiaus—Haleokapuni (submerged), Mailekini, and Puʻukoholā—are situated just outside of the eastern border of the Kawaihae SBH (South) in the Puʻukoholā Heiau National Historic Site. Akoni Pule Highway (Route 270) runs northwest-southeast roughly a half-mile northeast of the Kawaihae SBH (South). A rectangular Federal easement is located adjacent to the western edge of the project site. This easement is occupied by the U.S. Department of the Army's Kawaihae Military Reservation (KMR). A project location map is provided as **Figure 3-1**.

The project area is completely within the Kawaihae SBH (South) basin and is generally located along the Kawaihae SBH (South)'s existing revetted shoreline as shown in **Figure 3-5**. The proposed improvements are located just north of the East breakwater extension base, and will run approximately 750' to the northwest, along the shoreline. A portion of the project area is located within the harbor waters, while the remainder of the project area extends as far as approximately 200' *mauka* of the shoreline. The Pua Ka Ilima ʻO Kawaihae Cultural Surf Park is located at the extension base of the West breakwater, just to the northwest of the project site, the small Pelekane Bay is located just to the southeast of the project site, and Samuel M. Spencer Beach Park is approximately 0.45 miles to the southeast of the project site. The proposed improvements will not interfere with the adjacent beach parks during or post-construction.

Photographs of the existing site are provided in **Appendix E**.

5.1.2 CLIMATE

Description:

According to the Western Regional Climate Center, the average temperature at the nearby Puʻukoholā Heiau, Hawaiʻi is 75.7°F with average minimum and maximum monthly temperatures ranging from 67.6°F and 83.9°F, respectively. The annual rainfall average is less than 10 inches.

As described in the *Atlas of Hawaiʻi*, Third Edition (1998), there are two (2) generally recognized seasons in Hawaiʻi, the *kau* or the warm season when the sun is almost directly overhead and northeasterly tradewinds are present, and the *hoʻoilo* or the season of cooler temperatures, lower sun, more variable winds and extensive rains. The

northeasterly tradewinds predominate during the summer months (May through September), and weaken during the winter (November through March) when southerly or westerly winds occur due to localized low pressure and frontal systems.

Located on the leeward side of the Island of Hawaiʻi, Kawaihae is not exposed to the northeasterly trade winds, however is subjected to western "Waimea winds" from the west side of the surrounding mountains.

Impacts and Mitigative Measures:
No short-term or long-term adverse impacts to the climate are anticipated in the project area. Therefore, no mitigative measures are required.

5.1.3 AIR QUALITY

Ambient air quality refers to the state of purity of the general outdoor atmosphere. Ambient air quality is regulated under the Clean Air Act. The U.S. Environmental Protection Agency (USEPA) established National Ambient Air Quality Standards (NAAQS) for six criteria pollutants as a measure of ambient air quality. These six criteria pollutants include carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, ozone and particulate matter less than or equal to 10 micrometers (PM_{10}). In addition, the State of Hawaiʻi established standards for carbon monoxide and nitrogen dioxide that are more stringent that Federal standards as well as an additional ambient air standard for hydrogen sulfide (HIAAQS). **Table 5-1** summarizes the Federal and State Air Quality Standards.

TABLE 5-1
NATIONAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	NAAQS ($\mu g/m^3$)	HI AAQS ($\mu g/m^3$)
Carbon Monoxide	1-hour 8-hour	40,000 10,000	10,000 5,000
Nitrogen Dioxide	Annual	100	70
Sulfur Dioxide	3-hour 8-hour Annual	No Standard 365 80	1,300 365 80
Lead	Quarterly	1.5	1.5
Ozone	8-hour	157	157
PM_{10}	24-hour Annual	150 50	150 50
Hydrogen Sulfide	1-hour	No Standard	35

Source: Hawaiʻi Department of Health, December 2002

There are five air monitoring stations on the Island of Hawaiʻi; however, there is no air quality data for Kawaihae. The nearest station is located in Kona. Volcanic gases emitted during eruptions from Kilauea are the greatest source of air pollution. The main components of these emissions are water vapor, carbon dioxide, and sulfur dioxide. Sulfur dioxide is the main cause for concern, because it reacts with oxygen, dust particles, and atmospheric moisture to form sulfuric acid droplets and sulfate particles that result in "vog" and acid rain. Vog causes such symptoms as headaches, itchy eyes, breathing discomfort, and can aggravate pre-existing respiratory conditions. Vog is estimated to contribute approximately 13% of total sulfur dioxide emission.

Another source of pollution is the dust from strong wind blowing the coralline sand in the air. No other known sources of air pollution are found nearby.

According to the State of Hawai'i Department of Health (DOH) 2005 Annual Summary of Hawai'i Air Quality Data, the "air quality in the State of Hawai'i continues to be one of the best in the nation, and criteria pollutant levels remain well below federal ambient air quality standards." The DOH determined that the State of Hawai'i was in attainment for all federal ambient air quality standards in 2005.

Impacts and Mitigative Measures:
The principle sources of air pollution associated with this project will be fugitive dust emissions resulting from grading activities. These effects are short-term in nature and will cease upon completion of the proposed projects. No long-term effects on air quality due to the operation of construction equipment or vehicles are anticipated as their presence and use will be temporary. Dust mitigative measures such as water spraying shall be considered under the Best Management Practices (BMPs) during the construction phase.

An increase in exhaust emissions from vehicles and boats is anticipated in the project area; however, this increase is expected to be relatively insignificant due to the rapid dispersal caused by the local winds and the small number of vehicles and boats anticipated to be involved with the given mooring and vessel capacities provided by the Kawaihae SBH (South).

No cumulative effects on air quality are anticipated due to the temporary nature of the construction activity. No long-term mitigative measures are required.

5.1.4 TOPOGRAPHY AND BATHYMETRY

Description:
The project site is located at Kawaihae Bay. The land in the area is mildly hilly with ground elevation ranging from approximately 6.5 ft to 20 ft above mllw. The existing shoreline is protected by a rock revetment that has a crest elevation of approximately 6.5 feet. A ridge runs northwest-southeast, parallel to the site's southwestern shoreline in the central portion of the site.

The bathymetry near the shore of the Kawaihae SBH (South) is relatively shallow for some distance offshore, with a mild ocean bottom slope of approximately 2.9%. The 30-foot depth contour lies about 1,000 feet seaward from the harbor entrance. The native ocean bottom is primarily coralline reef rock with scattered sand pockets and numerous coral heads. The ocean bottom material at the harbor entrance and inside the harbor is mostly silty sand and coralline gravel. The depth of the harbor's turning basin is approximately 14 to 16 feet, which was established during the explosive excavation test of Project Tugboat.

Impacts and Mitigative Measures:
Construction work will involve some earthwork grading and paving on the landside portion of the project area to install the proposed comfort station, parking areas, and boat launch ramp. The general limits of grading are shown in **Figure 3-5**. Dredging of the site was completed during the initial construction of the Kawaihae SBH (South), and additional dredging is not required for this project phase. The proposed berthing and harbor facilities will be designed around the existing harbor water depths. Although the proposed project will slightly modify the site's existing land-side topography, the overall

drainage pattern will be maintained. Any excess overland flow anticipated due to the site grading and/or paving will be addressed and appropriately discharged as per State and County requirements.

5.1.5 SOILS

Description:

According to the *Soil Survey of the Island of Hawaiʻi, State of Hawaiʻi,* the soil at and adjacent to the project area is fill land (FL). Fill land is typical well drained. It is slowly permeable, has medium runoff, and has a slight erosion hazard. Refer to the soils map, **Figure 5-1**. Generally, the land at the Kawaihae SBH (South) consists of in-filled, dredged coralline spoil material obtained from the excavation of the Kawaihae DDH that occurred over a 15-year span which commenced about 45 years ago. While the fill was not compacted during placement, it is considered to be a reasonably stable foundation as it has remained in place since the original construction.

A geotechnical report was prepared in 2001, during the Master Plan phase of this project. In that study, two land borings and two off-shore borings were made on the eastern portion of the project site. The field exploration confirmed that the project site is generally underlain by coarse to medium dense coralline deposits embedded with lagoonal and beach sand deposits. Additional borings (two on-shore, two off-shore) were done in November 2007 to verify the soil conditions in the immediate project area. The 2007 analysis confirmed the findings of the 2001 geotechnical study.

Percolation rate testing performed for this project in the 2007 study indicated that the soil on-site has a percolation rate of approximately 1 min per inch. A high percolation rate is often found in the west Hawaiʻi area due to the coarseness of the soil grains and the presence of underlying fractured lava.

Impacts and Mitigative Measures:

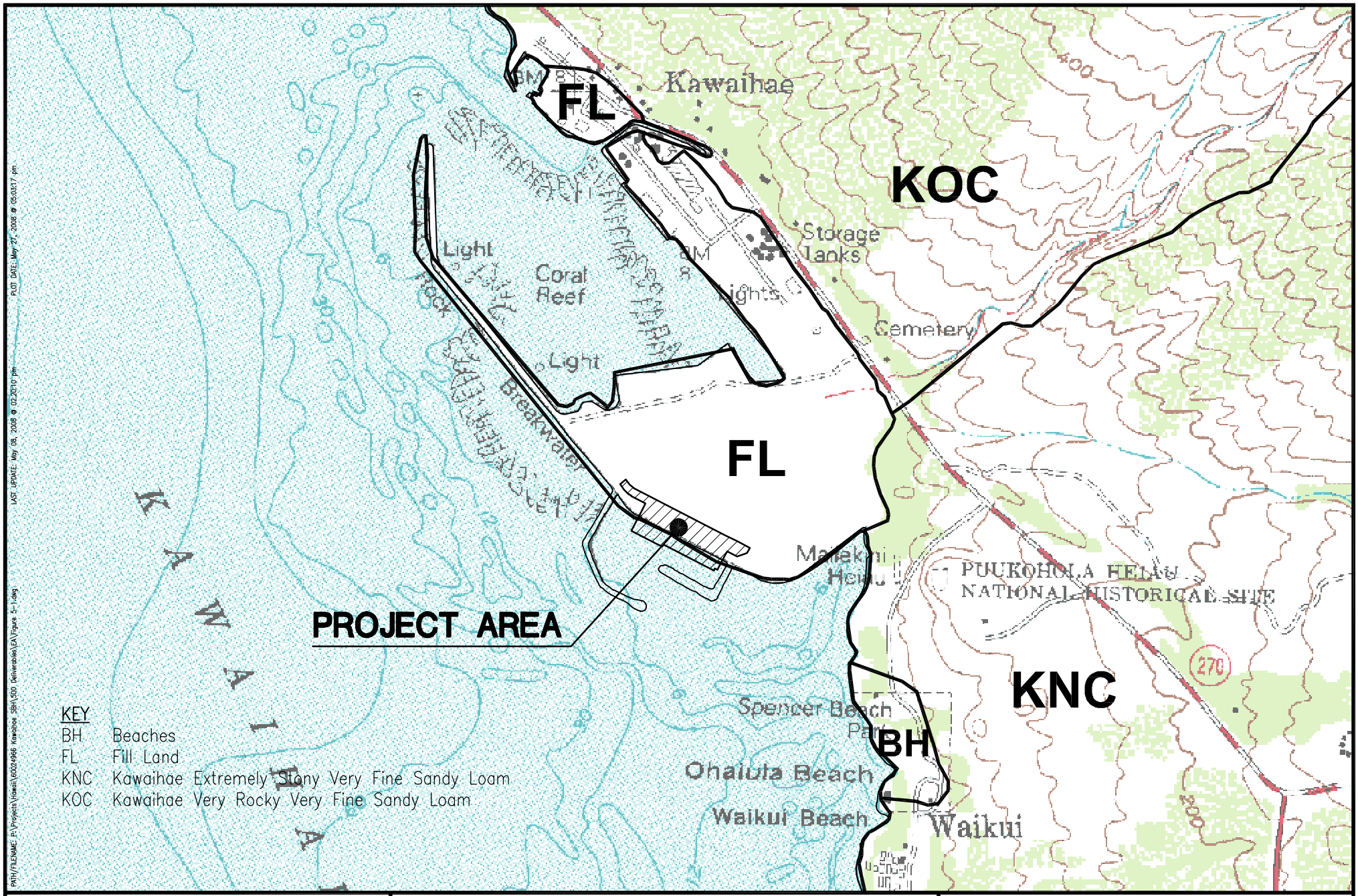
No short-term or long-term adverse impacts to the soils are anticipated in the project vicinity. Therefore, no mitigative measures are required. The proposed fixed structures and floating dock will be designed in accordance with the existing soil condition as recommended by the geotechnical engineer. Soil erosion will be prevented during construction through the use of appropriate BMPs and construction methods. Excavated soil and materials will be either utilized as general fill or disposed of in conformance with current Federal, State, and County regulations. Long-term soil erosion is not anticipated as a result of this project, as the disturbed portion of the shoreline will be protected and stabilized by the concrete boat launch ramp, and the adjacent revetment areas will be improved under this project phase.

5.1.6 WATER RESOURCES

Description:

The project area lies within the Mahukona aquifer system, which has a sustainable yield of approximately 17 million gallons per day (mgd). A map of the aquifer systems and sustainable yields for the Island of Hawaiʻi is presented in **Figure 5-2**. According to the United States Environmental Protection Agency's "Sole Source Aquifer Designations," there are no sole source aquifers on the Island of Hawaiʻi.

Figures provided in the 2005 County of Hawaiʻi General Plan indicate that the average consumption of the South Kohala District is 3.9 mgd. The Waimea and Lalamilo systems supply water to the South Kohala District. The six wells of the Lalamilo system service the area from Kawaihae to Mauna Lani, with an average daily consumption of 3.0 mgd.



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SOILS MAP

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Figure 5-1
SOILS MAP
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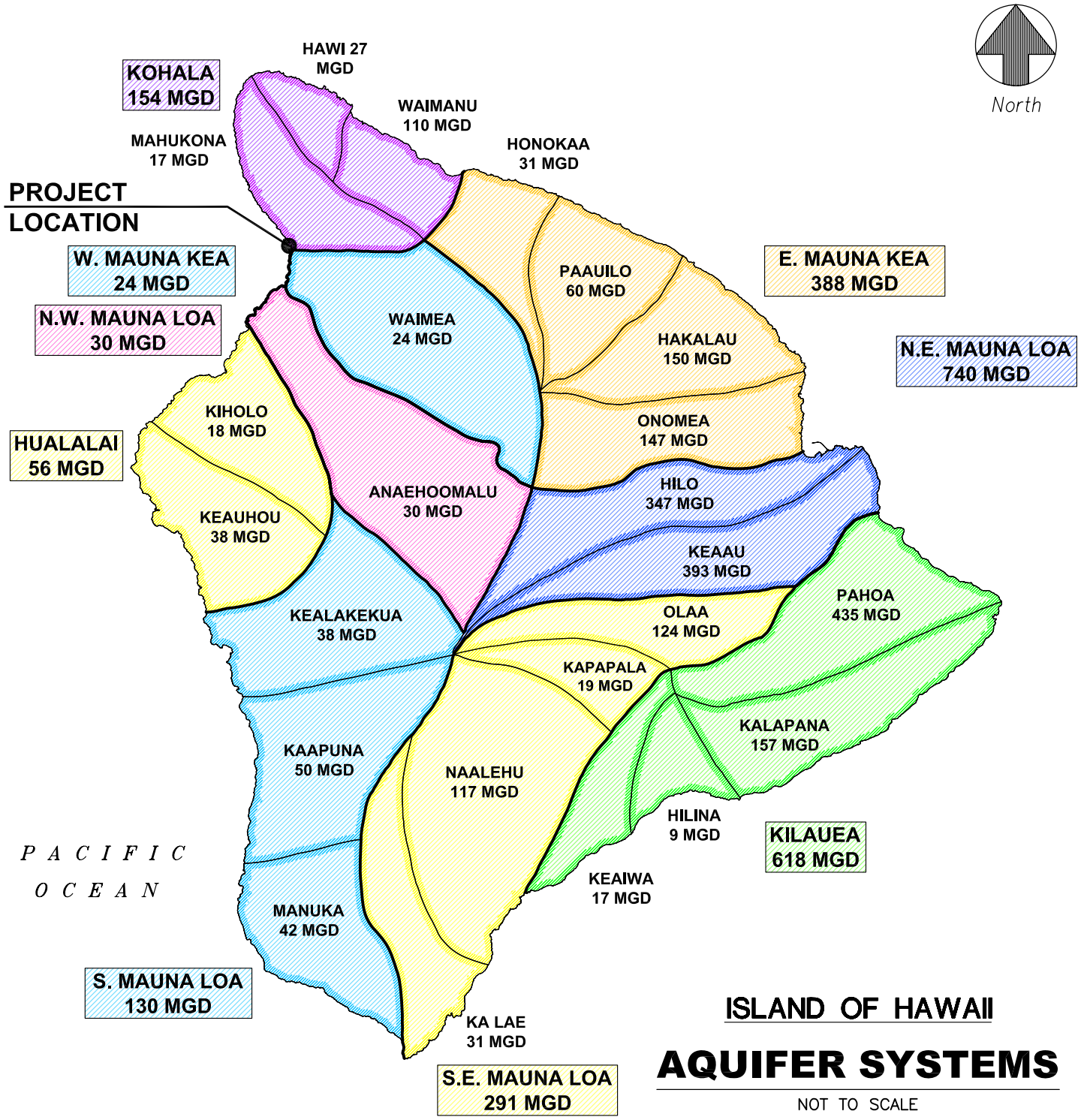
Kawaihae Small Boat Harbor (South) Improvements, Phase 1
May 2008



ISLAND OF HAWAII

AQUIFER SYSTEMS

NOT TO SCALE

ISLAND OF HAWAII
TOTAL = 2,431 MGD

HYDROLOGIC UNITS
Aquifer System &
Sustainable Yields

Source:
State Department of Land and
Natural Resources, GIS Map

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Figure 5-2
Island of Hawaii Aquifer Systems
Environmental Assessment for the
Kawaihae Small Boat Harbor (South) Improvements, Phase 1
May 2008

PATH/FILENAME: P:\Projects\Hawaii\60024966 Kawaihae SBH\500 Deliverables\EA\Figure 5-2.dwg
LAST UPDATE: May 21, 2008 @ 09:34:44 am
PLOT DATE: May 27, 2008 @ 05:06:05 pm

An existing 12-inch County of Hawaiʻi Department of Water Supply (DWS) water main runs along Akoni Pule Highway to the north of this project site. A 2-inch water line taps off the water main near the Makeahua Gulch, where it is metered by a 2-inch DWS water meter and adjacent backflow preventer. The 2-inch water line runs from the highway and towards the project area, partially overland and partially buried, then taps off into a 1-inch service water line at a DLNR-owned and maintained water meter and backflow preventer at the east end of the project area. This 1-inch service water line is currently used to service a hose bibb and outdoor shower at the YMCA boating facility. The line is owned and maintained by the State of Hawaiʻi DLNR DOBOR.

This project phase includes work adjacent to, within, and under waters of the Pacific Ocean. The USGS map and USFWS online map indicates that there are no perennial streams, ponds, lakes, or wetlands within the proposed site. The Makahuna Gulch and the Makeahua Gulch are approximately 0.4 miles to the east of the site. A High Salinity Anchialine Pool is approximately one-third of a mile to the northeast of the southern end of the project site (refer to **Appendix B**).

Impacts and Mitigative Measures:
The proposed comfort station, outdoor shower, wash down area, and individual spigot stands will be serviced through a buried 2-inch waterline connection to the existing 2-inch DLNR water meter and backflow prevention assembly. The existing 2-inch water meter can accommodate the anticipated maximum daily demand of the proposed facilities or approximately 0.003 mgd, which is small in comparison to the overall demand within the area. The proposed facility is not anticipated to adversely affect the water supply or demand of other DWS customers in the Kawaihae area. DWS has confirmed that the County meter will be able to accommodate the project's estimated demand and that the installation of an additional backflow prevention assembly at the connection is not required (refer to **Appendix A-2**).

A larger-capacity main waterline will be installed to service the full build-out of the planned Kawaihae SBH (South) during a future phase of this project. The future waterline will connect to the existing DWS waterline along Akoni Pule Highway, and it is tentatively planned to run along a future harbor access road alignment. The proposed comfort station, outdoor shower, wash down area, and spigot stands will be connected to the main waterline upon its construction.

Construction of the proposed facilities will be limited to the harbor basin, and is not anticipated to disturb the High Salinity Anchialine Pool. The proposed facilities are located at an adequate distance from the High Salinity Anchialine Pool, such that the anticipated construction, operational, and use activities are not anticipated to affect the integrity of the existing pools or its surrounding area.

Erosion control BMPs and applicable construction methods will be used during the construction phase to prevent related storm water discharge from entering harbor waters. This is further discussed in **Section 5.1.7** of this EA.

5.1.7 WATER QUALITY

Description:
Kawaihae Bay is classified as Class A marine waters. The Hawaiʻi Administrative Rules (HAR), Title 11 Chapter 54-Water Quality Standards defines Class A waters as those to be protected for recreational purposes and aesthetic enjoyment, propagation of fish, shellfish, and wildlife. These waters are not to receive any discharges that have not

received the best degree of treatment or control compatible with the criteria established for this class. Kawaihae Harbor is currently listed on the State's Final 2004 *List of Impaired Waters in Hawai'i* prepared under the Clean Water Act §303(d) for turbidity.

Impacts and Mitigative Measures:
Construction activities to be performed within, over, and under the Kawaihae SBH (South) harbor waters were discussed in **Section 4.1** of this EA. The construction activities described will temporarily affect the water quality of the harbor waters due to the anticipated activity along the harbor floor adjacent to the revetted shoreline. Materials that are excavated to install the boat ramp will be properly collected and disposed of as required by current Federal, State, and County regulations. The excavated materials will not be allowed to be discharged into the harbor waters. Dredging activities will not be conducted under this project, as the harbor facilities will be designed around existing harbor depths. Fill materials within harbor waters will be limited to those suitable to be placed in ocean waters, such as boulder rocks, as recommended by the geotechnical engineering consultant.

There will be a temporary increase in the turbidity of the water along the revetted shoreline during construction due to the floating dock installation, boat ramp installation, loading dock installation, various pile driving activities, and the revetment improvements. The turbidity level will return to pre-construction levels once construction activities have been completed. To minimize and isolate any decrease in water quality, the construction Contractor will be instructed to monitor the water quality within the Kawaihae SBH (South) as required by the State of Hawai'i Department of Health (DOH), and will be required to install and maintain adequate BMPs (e.g. floating silt curtain or turbidity barrier) and employ appropriate construction methods to prevent construction storm water discharge and excavated materials from entering the harbor waters. The on-shore fill materials will be protected by layers of geofabric or by other methods recommended by the geotechnical consultant. The fill materials will not be discharged into the harbor waters.

The size of the construction site will exceed one acre; therefore, a National Pollution Discharge Elimination System (NPDES) permit for Discharge of Stormwater Associated with Construction Activities (NOI-C) from the DOH will be required. Other NOIs will be obtained as required by construction methods used for this project. Stormwater runoff from the construction site will be controlled using the appropriate BMPs and construction methods. Runoff either will be collected and appropriately discharged, or will be filtered or treated as required by the DOH before discharge into the harbor waters.

The proposed construction activities within, over, and under State-Federal waters (i.e. the Pacific Ocean) will require State of Hawai'i Department of Health Section 401 permit and may require a Department of the Army Section 404 permit. Construction will be performed in accordance with the requirements of the applicable State and Federal permits and with the mitigative measures recommended above to properly address and prevent any potential negative impact to the State and Federal waters during construction.

Stormwater runoff at the project site is anticipated to increase with the installation of the proposed facilities, due to the site grading and on-shore concrete pavement structures. Excess runoff will be appropriately discharged to unpaved areas with high percolation rates where feasible. Should local sump areas develop with the installation of the

proposed improvements, they may be discharged through the use of shallow drywells. The existing overall drainage pattern, however, will be maintained with this project.

A relatively small increase in the ocean storm water runoff discharge is expected due to the boat ramp installation. In comparison to the magnitude of the existing runoff discharge in to the harbor, the anticipated runoff increase due to the concrete boat ramp is considered to be negligible and is not expected to adversely affect the water quality of the Kawaihae SBH (South).

The areas around the planned boat wash down and outdoor shower will be adequately graded to discharge the non-storm water runoff to gravel and/or vegetated areas nearby, where they will percolate into the ground or evaporate into the atmosphere. This water will not be discharged into the harbor waters.

The proposed harbor improvements may generate an increase in powerboat uses and related activities in the area, which may also increase the levels of chemicals associated with fuels, paints, and solvents. However, these increases are anticipated to be negligible in compared to the basin size and are not expected to negatively impact the water quality of the Kawaihae SBH (South). DLNR personnel will regularly clean and maintain the harbor areas to minimize the increase of pollutants into the harbor.

Any potential impacts to the water quality will be properly mitigated as recommended above.

5.1.8 NATURAL HAZARDS

Natural hazards in Hawai'i include floods, hurricanes, volcanoes and earthquakes. Existing conditions about these natural hazards and potential effects on these hazards due to proposed project are described as follows.

5.1.8.1 Floods

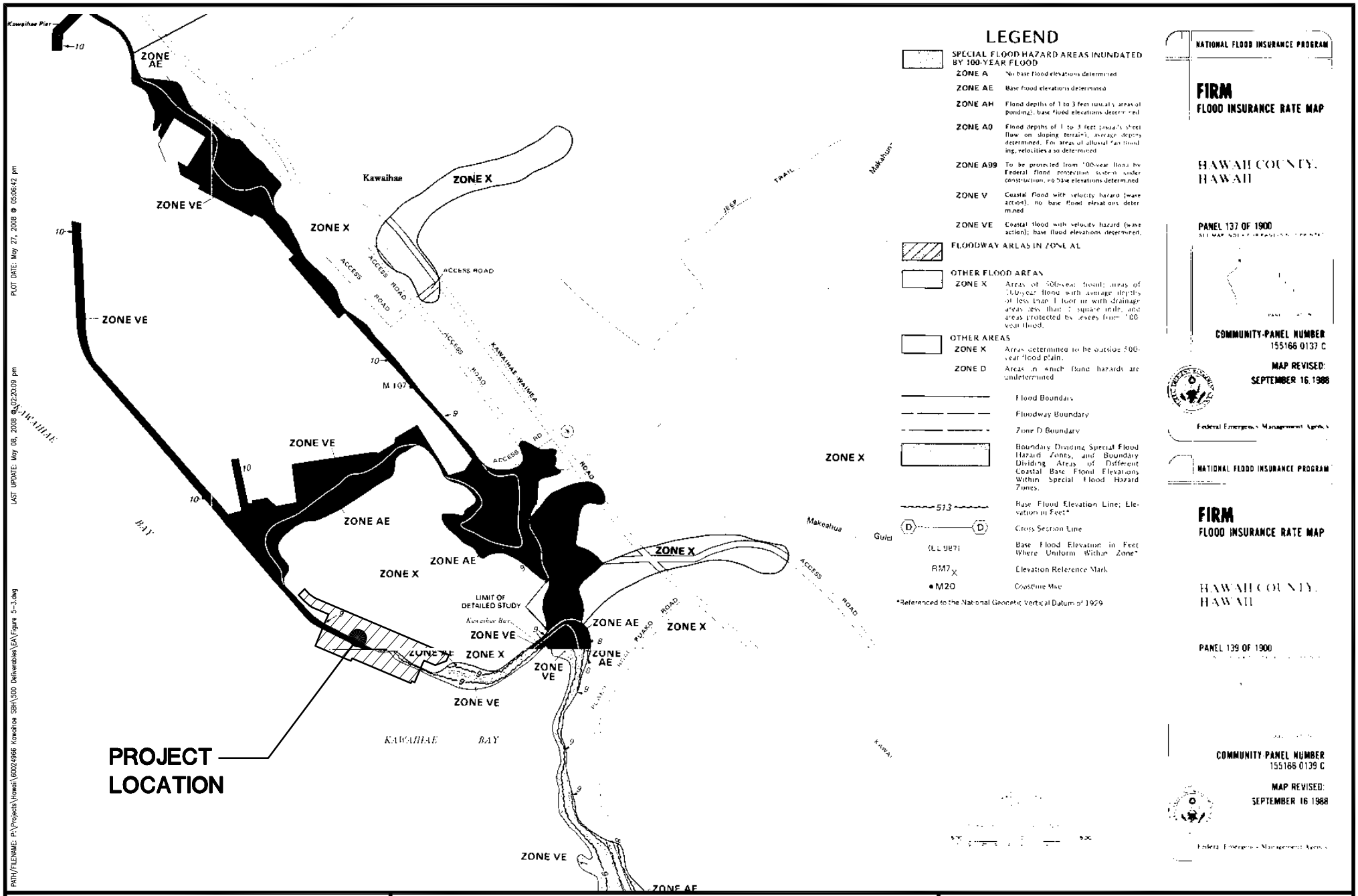
Description:

The project site is located in Zones VE, AE and X, as determined by the Federal Emergency Management Agency. Zone VE region is located along the coast, Zone AE area is located along the coast (inland and adjacent to Zone VE), and Zone X section is located inland of Zone AE. See the FIRM map, **Figure 5-3**.

Zone VE regions are special flood hazard areas that correspond to the one-hundred year coastal floodplains extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. Zone VE areas are subject to high velocity waters, including coastal and tidal inundation or tsunamis. Whole-foot base flood elevations derived from the detailed hydraulic analyses have been determined at selected intervals within this zone.

Zone AE regions are special flood hazard areas that correspond to the one-hundred-year floodplains. Whole-foot base flood elevations derived from the detailed hydraulic analyses have been determined at selected intervals within this zone.

Zone X regions are other flood hazard areas of minimal flood hazard corresponding to areas outside of the five-hundred-year floodplain. Base flood elevations or depths have not been determined for Zone X areas.



PATH/FILENAME: P:\Projects\Hawaii\60024966 Kawaihae SBH\500 Deliverables\EA\Figure 5-3.dwg LAST UPDATE: May 08, 2008 @ 02:20:09 pm PLOT DATE: May 27, 2008 @ 05:06:42 pm

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FIRM

SCALE AS NOTED

Figure 5-3
FIRM
Environmental Assessment for the
Kawaihae Small Boat Harbor (South) Improvements, Phase 1
May 2008

Impacts and Mitigative Measures:
The project area is within a 100-year coastal flooding zone. The proposed project will not affect the harbors flood zone; however, the proposed facilities and an increased number of boats may be damaged should flooding occur.

The proposed comfort station will be constructed above the flood elevation and designed to allow water to flow through the facility to minimize damage due to flooding. Portions of the existing revetment will be reinforced and stabilized, and the floating dock will be designed to minimize damage due to tsunami, storm, and coastal flooding events where feasible. As stated in the approved 1985 Final EIS, the existing revetted mole and breakwaters may "lessen the impact of tsunami wave action." Due to the nature and purpose of the proposed facilities, there are no practicable alternatives to construction of the proposed project within the floodplain.

5.1.8.2 Hurricanes and Strong Winds

Description:
Kawaihae Bay is generally sheltered from the direct effect of the tradewinds by the presence of the Mauna Kea, Hualalai, and the Kohala mountains, and winds in the project area are frequently light and variable. However, the harbor is also subject to strong, unpredictable winds from the west side of the mountains. These "Waimea winds" occur intermittently, can last from less than an hour to up to 12 hours, and are sometimes very strong. Winds of up to 50 knots have been observed by local boaters.

As reported by Sea Engineering's *Phase I Berthing and Facilities Plan, Kawaihae Small Boat Harbor* (1998), measurements taken by the National Weather Service's wind measurement station at Kawaihae Harbor indicate that the average wind speed is typically 30 knots or less, gusts do not frequently exceed 50 knots, and the average wind direction is easterly centered around 80°.

Kona winds blowing from the south-southwest to west directly affect the harbor site. These winds are generally of short duration (1 to 3 days), and damages from the Kona winds are not very common. However, there have been instances where severe Kona storms have sustained high winds for several days, causing damage along the island's western shores.

Along with the hazardous effects of strong winds, Hawai'i is also subject to the threat of approaching tropical storms and hurricanes. The first hurricane officially recorded in Hawai'i (Hiki) occurred in 1950. Newspaper accounts and meteorological data collection indicate that storm systems occur more frequently in Hawaiian waters than previously thought (Atlas of Hawai'i, 1998). More recently, Hurricanes Iwa (1982) and Iniki (1992) struck the Hawaiian Islands.

Hawai'i remains vulnerable to hurricanes, although they are rare events. These storms bring very heavy rains that may contribute to soil and slope instability, and high winds that contribute to surf hazards. The USACE Pacific Ocean Division study *Hurricanes in Hawai'i* by Paul Haraguchi (1984) estimated a probable and worst case wind speeds of 75 mph and 115 mph, respectively, for future storms in Hawai'i. Haraguchi's hurricane scenario model was developed using the hurricane characteristics of Hurricane Iwa and other previous storms in Hawai'i (Ref. Sea Engineering, 1998).

Impacts and Mitigative Measures:
Modifications to the project site will not affect the climate in the vicinity of the project areas. The proposed facility features will be designed and constructed to best minimize damage during tropical storm, hurricane, or strong wind events. As recommended by Sea Engineering, typical prevailing extreme wind conditions are characterized by a wind speed of 60 mph; therefore, a design wind speed of 80 mph will be used for the structural design of the proposed facilities.

5.1.8.3 Volcanic Eruptions

Description:
There are four active volcanoes on the Island of Hawaiʻi. Kilauea is an active volcano that has been continuously erupting since January 1983. Mauna Loa is an active volcano that last erupted in 1984, and is believed to be building for a new eruption within the next few years. The Loihi volcano last erupted in 1996, and Hualalai last erupted in 1801, however is expected to erupt again within the next 100 years.

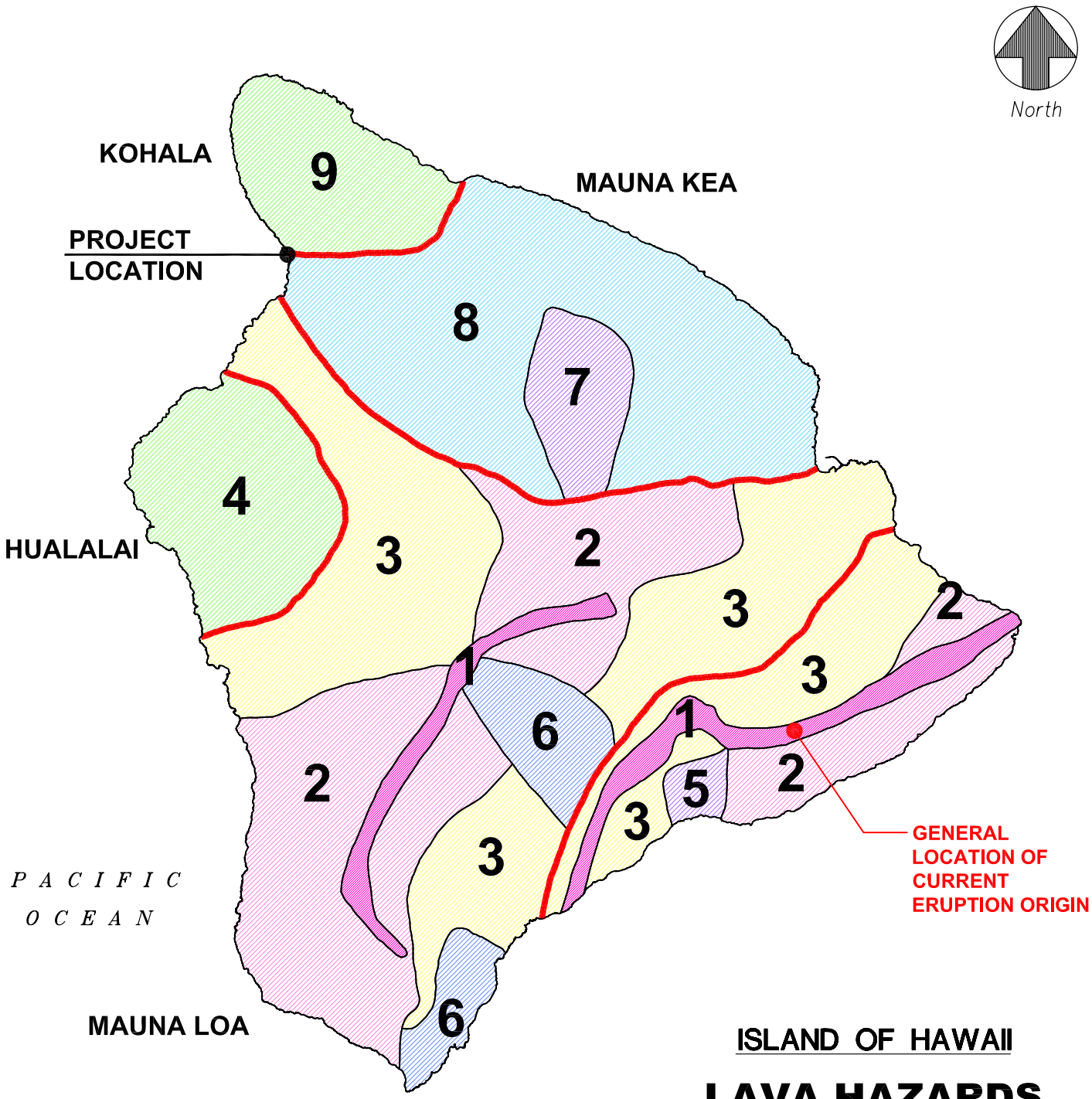
The project area is located to the north of the Hualalai summit and is bordering lava hazard zones 8 and 9 on an ascending scale of risk from 9 to 1, as determined by the United States Geological Survey (USGS). A map of the lava hazard zones for the Island of Hawaiʻi is presented as **Figure 5-4**. Zone 8 areas have not been affected by lava flows in the last 10,000 years and Zone 9 areas have not had an eruption in the area for the past 60,000 years.

Impacts and Mitigative Measures:
The risk of lava hazards at this site is very low; therefore, no mitigative measures are required.

5.1.8.4 Earthquakes

Description:
Earthquakes in Hawaiʻi typically result from magmatic migration underground. As there are four volcanoes currently classified as “active,” future earthquakes associated with underground lava movements are expected. There have been 23 large earthquakes with a magnitude of 6.0 or greater recorded since 1868 (*Atlas of Hawaiʻi*, Third Edition, 1998 and *Volcanic and Seismic Hazards on the Island of Hawaiʻi*, USGS, 1997), the most recent occurring in October 2006 (6.7 magnitude). Large earthquakes of this magnitude can cause structural damage to non-reinforced buildings and can cause coastal subsidence. The entire Island of Hawaiʻi is designated as Seismic Zone 4, based upon the United Building Code’s (UBC) seismic zone criteria that ranges from 0 to 4 (highest risk).

Impacts and Mitigative Measures:
Earthquakes are an ever-present threat, for both the short-term and the long-term, which can potentially devastate an area. The proposed project will comply with the current regulatory design standards. There are no practical mitigative measures currently available. However, the portion of the existing revetment adjacent to the boat launch ramp will be stabilized and reinforced to minimize damage to the revetment and proposed facilities should another earthquake event occur.



ISLAND OF HAWAII

LAVA HAZARDS

NOT TO SCALE

Hazard Zones are ranked from 1 (highest risk) to 9 (lowest risk)

Source:
U.S. Department of the Interior,
GIS Map, 1991

M&E Pacific, Inc.

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Figure 5-4
Island of Hawaii Lava Hazards
Environmental Assessment for the
Kawaihae Small Boat Harbor (South) Improvements, Phase 1
May 2008

PATH/FILENAME: P:\Projects\Hawaii\60024966 Kawaihae SBH\500 Deliverables\EA\Figure 5-4.dwg LAST UPDATE: May 21, 2008 @ 09:35:17 am PLOT DATE: May 27, 2008 @ 05:09:06 pm

5.1.9 FLORA AND FAUNA

Description:

As described in the 1994 EA and the 1985 EIS reports, the vegetation found in the project site and surrounding area generally consists of introduced plants and a few common native grasses (kiawe, piligrass, and fingergrass), weeds, hardy shrubs such as the haole koa, ilima, and kolu; and trees such as the keawe tree, monkeypod, beach heliotrope, milo, kou, and coconut tree.

Introduced birds, feral cats, mongooses, and skinks have also been located within the project area. Research performed for the 1985 EIS indicated that birds found in the area include the Ruddy Turnstone, California Plover, Wandering Tattler, Japanese White-eye, House Sparrow, American Gold Plover, Cardinal, House Finch, Warbling, Silverbill, Spotted Dove, and Barred Dove. The project area is not a critical habitat of these birds as they do not nest or breed there.

According to the 1994 EA, the reef-fish community within the harbor basin is relatively diverse, but overall abundance is low. At that time, the U.S. Fish and Wildlife Service reported at least 68 species of fishes in the area and only 11 species of coral. Other marine animals found in the area include sea urchins, crown of thorns starfish, a triton's trumpet, mullets, and black tip, grey reef, and reef white tip sharks.

There are no rare, endangered, or threatened species that use the project area as a critical habitat. According to the 1994 EA, the endangered Hawaiian Hawk, Hawaiian Bat and Hawaiian Owl occasionally forage in the area; however they do not nest, breed, or roost in the area. The 1994 EA states that the federally listed endangered humpback whale is often seen in the area during the "whale season" (December-May annually) and the threatened green sea turtles are seen almost daily. The green sea turtles feed in the area, though they do not nest in the area because there is no easy access to land for them.

The Hawaiʻi Biodiversity and Mapping Program (HBMP)[2] was consulted (see **Appendix B**), and while a review of their database records determined that no threatened or endangered species have been recorded within the site, it was also noted that a High Salinity Anchialine Pool has been recorded nearby, roughly near the Puʻukoholā Heiau and the Pohaukole Gulch. Anchialine Pools are sensitive sites and are critical habitats for the Opaeula (Hawaiian red shrimp), which are a species of concern. While more research is needed to determine if any shrimps are located in that pool, the Anchialine Pool is beyond the project limits and is not anticipated to be affected by the proposed construction.

Consultation with the United States Department of the Interior Fish and Wildlife Service (FWS) revealed that the federally threatened Newells shearwater (Puffinus auricularis newelli) and the federally endangered Hawaiian petrel (Pterodroma phaeopygia sandwichensis) are known to occur in the vicinity of the project area. Additionally, the FWS indicated that several species which are not listed under the Endangered Species Act but are protected under the Migratory Bird Treaty Act may transit the area. These birds may fly through the area while traveling to or from their montane nesting areas.

[2] The Hawaiʻi Biodiversity and Mapping Program database is compiled based upon on the research and observations of scientists and individuals, and is not necessarily a result of comprehensive site-specific field survey.

Correspondences related to the flora and faunal consultations are provided in **Appendix B**.

In addition to information obtained from consultation with the various organizations and agencies discussed above, a small colony of live coral was observed along the existing rock revetment toe in the general area of the proposed boat launch ramp and loading docks due to an investigative dive in April 2008.

Impacts and Mitigative Measures:
The proposed improvements at the Kawaihae SBH (South) are not expected to impact the endangered humpback whale and threatened green sea turtle population. Construction will be confined within the existing breakwaters, and work within the water will take place along the existing revetment. The green sea turtle does not nest within the Kawaihae SBH (South) basin; therefore, their critical habitat will not be affected by this project.

The light-draft vessels using the DDH will be relocated to the improved Kawaihae SBH (South) upon project completion; as a result, there will not be a large increase in the number of boats in the area. The limited size of the harbor and the current boating population within the area makes it unlikely that the anticipated additional boat traffic will impact either the humpback whales or threatened green sea turtles. The National Oceanic & Atmospheric Administration (NOAA) National Marine Fisheries Service previously agreed with this option (Ref. 1994 EA), and has also been consulted regarding the proposed project. No comments or objections to the proposed project have been received from NOAA.

The proposed facility construction is not anticipated to affect the population or the critical habitats of the federally threatened Newells shearwater and the federally endangered Hawaiian petrel. These pelagic birds typically nest and breed in higher elevations than that of the project site, although they may feed or forage in the general area of the proposed project. The Newell's shearwater prefers to nest within burrows located under ferns on forested mountain slopes, while the Hawaiian petrel prefers to nest in burrows among rocky outcrops, under cinder cones, or under old lichen-covered lava. The project site lacks both of these habitat characteristics. Both listed birds mostly feed in open water areas, with the Hawaiian petrel feeding mainly at night.

The FWS raised concerns that the night-flying birds, especially those protected by the Migratory Bird Treaty Act, may become disoriented from the bright lights of the proposed site lighting elements, which may cause them to land in an area where they are vulnerable to vehicle collisions and non-native predators. Additionally, the FWS is concerned that the migrating birds may collide with the light poles while in flight (Refer to FWS response letter dated August 13, 2007, **Appendix B**). To minimize the potential effect upon the birds, all lighting associated with the proposed harbor improvements will be designed to be shielded downward so that the bulb is not visible at bulb height from the side. The lights will be mounted on the shortest poles possible, and the poles will not extend above the height of surrounding existing vegetation of approximately 20 to 25 feet. The design will also specify that bulbs with the lowest wattage possible be used with the lighting elements. These mitigative strategies will help to minimize the potential disorientation of the birds, and will minimize possible collision of the birds with the light poles, as recommended by the FWS.

Additionally, the following measures will be taken to mitigate the effects of the project on the surrounding environment, as recommended by the FWS' *Coordination Act Report* dated 19 October 1994, and as proposed by the 1994 EA.

- No construction materials will be stockpiled in the marine environment.
- Fills will be protected from erosion with armor stone as soon after completion as practicable.
- All construction-related materials should be placed or stored in ways to avoid or minimize disturbance to the reef.
- All construction-related materials should be free of pollutants.
- No contamination of the marine environment should result from construction activities.
- A contingency plan to contain and control accidental spills of petroleum products within the Kawaihae SBH (South) will be developed. Absorbent pads and containment booms should be stored on-site to facilitate the clean-up of petroleum spills.

The live coral within the project area waters will be relocated and transplanted to the west side of the harbor, approximately 260' to the northwest of their current location. The coral relocation activities will be performed under the supervision of a certified marine biologist, and the utmost care will be provided to prevent abrasion or harm to the coral while they are freed from their existing locations and transplanted within the harbor.

5.1.10 VISUAL

Description:

The project site is located in a generally undeveloped portion of the Kawaihae SBH (South). The site was previously graded during the Kawaihae SBH (South) and existing breakwater construction to install the existing revetment and unpaved access road along the shoreline. The only water-based structures in or adjacent to the project area are the YMCA's floating dock and the existing East and West breakwater structures. The site is currently populated by various medium-sized trees and brush. The only other existing land-based structures in or near the project area include a fenced area for boat and equipment storage, a small elevated lookout with handrails and retaining wall, a short wooden ramp for access to a small floating dock. These structures are a part of the YMCA Halau Kukui Aquatics Center of Kawaihae. Photos of the existing site are provided in **Appendix E**.

Impacts and Mitigative Measures:

This project will install improved boating facilities at the Kawaihae SBH (South), including a comfort station, a concrete boat launch ramp, and a floating dock along the existing revetment. Site lighting will be provided at the boat launch ramp and the two (2) user access ramps on either side of the floating dock.

Construction activities will disrupt aesthetic qualities temporarily. Disruptions will be minor and short-term and will result primarily from activities associated with the installation of the proposed improvements.

The proposed project will alter the existing aesthetic with the installation of the planned improvements. The existing YMCA facilities will be relocated, although the elevated CRM lookout will remain in place. The comfort station and light poles, in particular, may become an additional visual intrusion in the project area. While the new facilities will not affect the view of the ocean from the shoreline, the view of the harbor will be altered in

such a manner that is consistent with its intended use and as previously accepted by the Kawaihae boating community and other interested parties. The facilities will be designed to minimize its impact on the natural beauty of the site.

5.2 SOCIAL

5.2.1 SECTION 106 AND CULTURAL RESOURCES

Description:

According to the State Historic Preservation Department's (SHPD's) Hawaiʻi National Register of Historic Places, and as determined by the 1994 EA and 1985 EIS documents, no historical or archeological sites are located within the project area. However, the Puʻukoholā Heiau National Historic Park (Site Number 10-05-4139, TMK: (3) 6-2-002: 009, 010, and 016) is located approximately 600 feet to the south of the project site.

The Puʻukoholā Heiau National Historic Park is a 77-acre area that includes several historic landmarks, including the submerged Haleokapuni Heiau (shark heiau), the Mailekini Heiau, the Puʻukoholā Heiau, and the James Young Homestead historic settlement. The proposed project site is located within an area that has previously been altered and disturbed and is located completely within the harbor basin which is protected by the East and West breakwaters. The structures within the Puʻukoholā Heiau National Historic Park were not damaged or affected by previous construction activities in the area (including the Project Tugboat detonations [Ref. 1985 EIS]); therefore, it is anticipated that the Puʻukoholā Heiau National Historic Park will not be affected by the installation of the proposed facilities. Should the Contractor uncover any cultural resources during his construction activities, he will be required to stop work immediately and notify the SHPD of his finds. SHPD will then determine the appropriate treatment of these new finds. The locations of the heiaus, relative to the project site, are shown in **Figure 3-2**.

To supplement this finding, the following organizations were contacted. No comments or reservations have been received at this time.

Advisory Council on Historic Preservation
Center for Conservation Research and Training, Hawaiʻi Natural Heritage Program
Department of Hawaiian Homelands
Office of Hawaiian Affairs
U.S. National Park Service

A copy of the consultation requests and responses received are provided in **Appendix A-1**.

Impacts and Mitigative Measures:

The proposed project will not result in a negative impact to the site as a historical cultural resource, nor will it impact the historical or cultural integrity of the surrounding areas. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

5.2.2 PUBLIC SERVICES/INFRASTRUCTURE

Description:

Current vehicular entrance to the project site is through a secured entry gate at the Port of Kawaihae. Due to a Federal Department of Homeland Security requirement initiated in 2004, all visitors to the harbor must either be trained in Maritime Security (MARSEC) clearance or properly escorted to the harbor site. In addition to the MARSEC requirement, DOT-Harbors will require all visitors who wish to access the Kawaihae SBH (South) unescorted to obtain a Transportation Worker Identification Credential (TWIC), effective April 2009. TWICs are tamper-resistant biometric credentials, and all vessel owners will be required to obtain this additional card to moor their vessels at the Kawaihae SBH (South).

There are currently no paved roads leading directly to or within the project site, outside of the commercial port facilities. An unpaved white coral road along the shoreline currently provides access to the Kawaihae SBH (South). This existing vehicular access loops around past the neighboring Pua Ka Ilima 'O Kawaihae Cultural Surf Park, the Kawaihae SBH (South), and past Pelekane Beach to connect with the Akoni Pule Highway. A second highway access is located approximately 0.4 miles northeast of the project site, as shown in **Figure 3-2**. This access is currently gated. The gate is closed and locked to conform to the Federal MARSEC requirement. DOT-Harbors has announced plans to cut off the vehicular access between the Port of Kawaihae and Kawaihae SBH (South) within the next couple of years. This is further discussed in **Section 5.2.4** of this EA.

Existing telephone ducts, power lines, and a 12-inch waterline are located along Akoni Pule Highway in the vicinity of the Kawaihae SBH (South); however, there are currently no County utilities within the project site.

The YMCA's Halau Kukui Aquatics Center is located on the eastern side of the project site. The YMCA facilities include portable toilets within a fenced equipment storage area, an open pavilion, and a small floating dock with a short access ramp. As discussed in **Section 5.1.6** of this EA, an existing overland 1-inch waterline services the YMCA facility. This 1-inch waterline is located within the project site and runs along the YMCA fence line to an irrigation valve within the storage area. It taps into a 2-inch water line that continues east of the project site to ultimately connect to an existing 2-inch water meter that is owned and maintained by DLNR. This 2-inch line in turn continues east and connects to a DWS 12-inch water main along Akoni Pule Highway at Mahukona Gulch.

Impacts and Mitigative Measures:

The existing vehicular access will conflict with the proposed boat ramp installation. Therefore, the access road will be relocated and realigned as shown in **Figure 3-5**. The proposed realigned crushed coral vehicle access will remove the vehicles from the main pedestrian paths and will provide continued access to the neighboring surf park and past Pelekane Beach.

As previously discussed, water service for the proposed project facilities will be provided by a connection to the existing 2-inch DLNR water meter. The new water service line will be installed in an underground trench to protect it from damage.

The proposed comfort station will utilize an Individual Wastewater System (IWS) comprised of a septic tank and absorption bed to process the anticipated wastewater

flows. The proposed IWS will be designed and constructed in accordance with the current State of Hawai'i Department of Health codes and regulations.

Site lighting will be provided at the boat launch ramp and the pedestrian access ramps on either end of the proposed floating dock. Appropriate lighting will also be provided at the comfort station to provide security and visibility. Lighting along the floating dock will be provided in a future phase of this project. Electrical service will be provided by a connection to an existing power source located along the harbor access road, just before the Department of the Army parcel located to the north of the project site. The connection will be made at an existing electrical pole along the harbor access road.

A new main waterline, electrical duct, and telephone duct to support the full Kawaihae SBH (South) build-out will be constructed during a future phase of this project. The future utilities will connect to the existing utilities along Akoni Pule Highway, and are tentatively planned to run along a future Kawaihae SBH (South) access road alignment. The waterline facilities to be constructed with this project will be connected to the main waterline upon its construction.

Electrical, telephone, and waterline service will not be provided along the floating dock during this phase of the project. However, as these utilities will be eventually installed during a future phase of the Kawaihae SBH (South) build-out, the floating dock design will include utility corridors to accommodate the future planned utility lines.

As requested by harbor users, temporary, stand-alone spigots will be installed periodically along the top of the existing rock revetment and at the boat launch ramp to allow users to wash down larger boats while moored. These spigots may be removed when permanent water service is provided to the floating dock under a future project phase.

Disruption of existing public utilities is not anticipated due to construction of the proposed Kawaihae SBH (South) facilities. The YMCA facilities located on the project site will be relocated prior to construction, as per YMCA's agreement with DLNR. These facilities were constructed with the knowledge that they would need to be relocated when the State developed the area.

5.2.3 NOISE

Description:

There are no residences near the Kawaihae SBH (South) project area. Some ambient noise level in the area is generated from commercial harbor/shipping activities at the Port of Kawaihae and the Kawaihae Deep-draft Harbor and from vehicular movements along Akoni Pule Highway. Ambient noise within the immediate project area is generally low, with the main noise sources being boat and vehicle traffic. Additional background noise is provided from natural sources, such as the wind and the breaking surf.

During construction, noise levels will increase from the operation of heavy construction equipment. Typical heavy construction equipment will include but may not be limited to backhoes, front loaders, concrete trucks, flat bed trucks, pile drivers, etc. Typical noise levels generated by this equipment will range from 80-90 decibels (dBA). These will be short-term and minor.

Construction of the proposed facilities may result in a greater number of power boats and harbor users regularly utilizing the small boat harbor, which may in turn contribute to the noise level.

Impacts and Mitigative Measures:
Noise generated by construction activities will comply with noise provisions established by the State Department of Health and no further measures are required to mitigate short-term impacts. Construction activities are short-term and localized in nature, therefore no long-term or cumulative impacts are anticipated due to the proposed project, and no other mitigative measures are required.

The noise generated by the use of the proposed facilities is anticipated to be on the same level as the existing ambient noise and will not create a negative impact to the surrounding environment. No mitigative measures are necessary.

5.2.4 TRAFFIC

Description:
The current primary vehicular access to the Kawaihae SBH (South) is off of the Akoni Pule Highway located approximately 0.5 miles northeast of the project site, and through a secured gate at the entrance to the Port of Kawaihae. While traffic within the port facility is comprised mainly of commercial vehicles in association with the various shipping companies located at the Port of Kawaihae, traffic within the project area is made up of vehicles entering and exiting the Pua Ka Ilima 'O Kawaihae Cultural Surf Park or the Kawaihae SBH (South). While there are typically few cars in the project area, recreational traffic is known to increase during good surfing conditions.

DOT-Harbors has informed DLNR-DOBOR that planned improvements are scheduled to be constructed in the area between the Port of Kawaihae and the Kawaihae SBH (South) within the next couple years. As a result of DOT-Harbors' improvements, access to the small boat harbor from the secured Port of Kawaihae entrance will be permanently cut off. Details regarding the DOT-Harbors plans or construction schedule are not available at this time; however, the Phase 1 small boat harbor improvements proposed with this project are expected to be constructed before the DOT-Harbors' improvements are in place. Therefore, the DLNR-DOBOR intends to utilize the secondary gated highway entrance as an interim access road to the Kawaihae SBH (South) once the primary access is discontinued.

A permanent separate paved access road to connect the Kawaihae SBH (South) to Akoni Pule Highway is planned in the full build-out of the harbor facility. The proposed access road will be constructed in a future phase of this project. An 8-foot tall security fence with three strands of barbed wire will be installed along the access road to separate the recreational area and traffic from the commercial harbor operations. DLNR-DOBOR will coordinate the location of the access road driveway along Akoni Pule Highway with the Department of Transportation, Highways Division (DOT-HWY).

To maintain vehicular access through the Kawaihae SBH (South) area and to the neighboring areas, the existing unpaved access road will be realigned within the project area to avoid conflicts with the proposed improvements. The realigned vehicle access will remove the through traffic from the main pedestrian pathways.

Impacts and Mitigative Measures:
There will be minimal impacts to traffic along Akoni Pule Highway during the construction of the Kawaihae SBH (South) facilities. Increased traffic will occur from the movement of construction vehicles and crews to and from the site. This traffic is anticipated to have little effect on the overall flow of traffic in the area, as all of the construction work will take place on the site away from the main roadway. The Contractor will be instructed to coordinate the construction equipment mobilization/demobilization with DLNR, DOT-Harbors, and the appropriate representatives from Matson, Young Brothers, and other affected parties prior to the start of construction. No work will be done along or adjacent to Akoni Pule Highway and no road closures are expected.

The proposed harbor improvements may result in a slight increase in traffic within the Port of Kawaihae, as a greater number of vehicles (both with and without boat trailers) will need to access the small boat harbor. A majority of this increased traffic will be comprised of light-draft boaters who currently utilize the harbor facilities at the Deep-draft Harbor. The overall increase in traffic is anticipated to be relatively minimal in comparison to the normal traffic activity at the port. Any additional traffic due to the proposed harbor improvements will be off-set when the port through access is closed and more so when the permanent access road is constructed in a future phase of the project.

DLNR-DOBOR will coordinate with DOT-Harbors regarding the use of the main secured gate entrance to Kawaihae Harbor for access to the project site until the harbor access through the Port of Kawaihae is eliminated. DOT-Harbors and DOT-HWY will be consulted in the interim use of the secondary highway access, and in the future design and construction of the permanent dedicated access road.

5.2.5 RECREATIONAL FACILITIES & PUBLIC ACCESS

Description:
As previously discussed, there is an existing YMCA Halau Kukui Aquatics Center located on the eastern side of the project site. The YMCA facilities within the project area include a fenced storage area for boats and equipment, a shipping container, portable toilets, a small floating dock/platform, a dock access ramp, and a CRM lookout platform at the top of the revetment. The Waimea Family YMCA currently uses these facilities to hold youth sailing camps and other organized recreational water activities. In accordance with their previous agreement with DLNR-DOBOR, the YMCA will relocate their facilities and operations prior to the construction of the proposed project. DLNR will request that the CRM lookout platform remain in place.

The existing Kawaihae SBH (South) is currently a popular area for some light-draft boaters and local shore fishermen. Some surfing activities occur outside of the harbor breakwater areas. The proposed harbor improvements will serve to encourage these and other water-related activities by providing amenities such as a boat wash down area, a comfort station, and an outdoor shower. The proposed project will also allow for small commercial activities such as charter and cruise boats to operate from the Kawaihae SBH (South).

As shown in **Figure 3-1**, the Pua Ka 'Ilima O Kawaihae Cultural Surf Park is located northwest of the project site, near the Deep-draft Harbor breakwater, and along the unpaved access road to the Kawaihae SBH (South). Access to the surf park is currently via the port of Kawaihae. The secondary access off the main highway is now closed due to MARSEC requirements. Pelekane Beach is located to the southeast of the project

area, fronting the Puʻukoholā Heiau. Out of respect for the sacred heiau site, swimming and sun-bathing are not allowed at Pelekane Beach. The regularly used existing unpaved access road runs past the surf park, along the existing Kawaihae SBH (South) shoreline, and past Pelekane Beach. Visitor access to Pelekane Beach is via a paved pathway from the Puʻukoholā Heiau. Continuous lateral access between the small boat harbor and the surf park is currently provided along the shoreline via the coral access road for pedestrians and vehicles.

Samuel M. Spencer Beach Park is located to the south of Pelekane Beach. The beach park is used by residents and visitors for various recreational activities. The proposed project will not affect the use of or access to the beach park.

Impacts and Mitigative Measures:
Construction of the Kawaihae SBH (South) will necessitate relocation of the existing YMCA facilities within the project area, with the exception of the CRM lookout platform. The YMCA erected their facility structures under an agreement with DLNR-DOBOR to remove the aquatic center structures when the State developed the land. It will be the responsibility of the YMCA to relocate their aquatic program and facilities to another location. Appropriate notice will be provided to the YMCA as to when construction of the proposed improvements is anticipated to begin.

The proposed project is in accordance with the intended use and development of the Kawaihae SBH (South), as outlined in the accepted Kawaihae Small Boat Harbor (South) Master Plan (2003). Current fishing and boating activities at the harbor will be supported and encouraged by the proposed improvements, while making the harbor more accessible to a greater portion of the Kawaihae boating community. Additional recreational activities may be generated by the planned facilities, and this project will help to fulfill the large demand for light-draft vessel berthing space in the Kawaihae Harbor area. Access to existing recreational spots within the Kawaihae SBH (South) will not be limited or obstructed with this project.

It was noted by community members that other small boat harbors on the Island of Hawaiʻi serve as recreational areas that attract, among other users, children. This situation has created a problem at similar locations, such as the Kawaihae (North) Harbor ramp, Pohoiki Small Boat Harbor, and the Kailua Harbor. The proposed improvements may result in an increase of children playing in the area of the boat launch ramp. Security measures will be installed as feasible with the facility design.

Vehicular access to the neighboring Cultural Surf Park and Pelekane Beach will not be affected during construction or upon project completion. The existing coral access road will be closed in the vicinity of the Kawaihae SBH (South) during the initial construction (mass-grading) activities; however, this will not affect access to the surf park via the main entrance at the Port of Kawaihae. Should the DOT-Harbors' planned improvements affect access to the Cultural Surf Park from the main entrance, then DOT-Harbors will provide for an alternate route to ensure that continuous access to the surf park is maintained.

The proposed boat ramp will conflict with the existing coral vehicular access road; therefore, the vehicle access will be realigned to direct traffic *mauka* of the harbor facilities as shown in **Figure 3-5**. The realigned graded, crushed coral vehicle access will remove the main incoming and outgoing traffic from the designated accessible pedestrian pathway. Appropriate notification will be provided to the Pua Ka ʻIlima ʻO

Kawaihae Cultural Surf Park, Inc. regarding any construction work that may affect their operations. The project design will indicate that the realigned crushed coral access road be graded prior to facility installation to allow access through the Kawaihae SBH (South) area during facility construction.

Continuous lateral pedestrian access along the shoreline between the surf park and the small boat harbor will not be affected, except for the portion in the immediate area of the proposed boat launch ramp. As the launch ramp must be placed at the shoreline to provide boat access to the ocean, this specific interruption cannot be avoided. However, an accessible paved pedestrian walkway will be provided across the top of the boat launch ramp to allow pedestrian access to the surf club area along the shoreline. During construction, the contractor will ensure that a safe and accessible pedestrian pathway along the shoreline area is provided.

Construction work along the existing revetment may temporarily interrupt boating activities within the Kawaihae SBH (South); however, full use of the area will be restored to boaters upon project completion. Adequate notice of the construction schedule will be provided to the members of the Kawaihae boating community to allow users to plan accordingly.

No other short-term or long-term negative impacts on the existing recreational facilities are anticipated, therefore, no further mitigative measures are required.

5.3 SOCIO-ECONOMIC

5.3.1 DEMOGRAPHICS

Description:

According to the 2000 census for the Waimea Census Designated Place (CDP), the total population of the area is 7,028 people. The Waimea CDP covers a total area of 38.8 acres in the Waimea CDP. The population density of the Waimea CDP is 181 per square mile (where 7,028 people reside on 38.8 square miles of land) while that of the entire island of Hawai'i is 36.9 (as 148,677 people reside on 4,028.02 square miles of land). The average household size is 2.95 and the average family size is 3.36.

Impacts and Mitigative Measures:

It is not anticipated that the facility will induce or reduce the residential population in this area in the short-term or long-term. Therefore, no mitigative measures are required.

5.3.2 SOCIO-ECONOMIC ENVIRONMENT

Description:

The population of the South Kohala district has greatly increased since the 1970's. By 2000, the district had seen an average growth of approximately three times its population, with the majority of growth occurring between 1980 and 1990 (County of Hawai'i, 2005).

The 2000 Census provided a profile of the general demographic and socio-economic environment of the Waimea CDP. While this may not apply to all the communities within Waimea, it does provide a glimpse of the social environment in the vicinity of the project area. The median age of the Waimea resident is 36.5 years old. Of the population 16 years and older, 68.5% are employed, while 31.5% are either unemployed or not in the labor force (retired, disabled, etc.) Typical occupations include management, service, sales, and farming. The median household annual income for residents of the Waimea CDP is $51,150. The per capita income for the CDP is $20,773.

Impacts and Mitigative Measures:
The socio-economic environment, for all classes, is not expected to be adversely affected by the Kawaihae SBH (South) Improvements project. Work related to the installation is not anticipated to significantly restrict traffic or require the closure of any businesses. This work will not interrupt water service to current County of Hawaiʻi DWS customers. Therefore, no mitigative measures are required.

The proposed harbor improvements will provide a greater number of safe moorings and other facilities for private fishing, small commercial fishing, and other boating activities. The improvements may stimulate or support the growth of marine-related business such as charter tours or boat sales and rentals. Revenue may also be generated by mooring charges along the floating dock.

The development of these and other similar possible economic opportunities will positively benefit the Kawaihae community. Additionally, removal of the existing light-draft vessels from the deep-draft harbor will reduce conflicting small boat traffic and provide more space for increased commercial capacities.

5.3.3 ENVIRONMENTAL JUSTICE

Description:
Federal funding will not be utilized for this project, therefore formal compliance with Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations* is not required. However, this project complies with the intent of the EO which requires federal agencies to take appropriate steps to identify and avoid disproportionately high and adverse effects of federal projects on the health and welfare of minority and low-income populations.

Impacts and Mitigative Measures:
No negative impacts, long-term or cumulative, are anticipated. No persons will be displaced or adversely affected as a result of this project. Therefore, no mitigation measures are required.

5.4 LAND USES AND OWNERSHIP

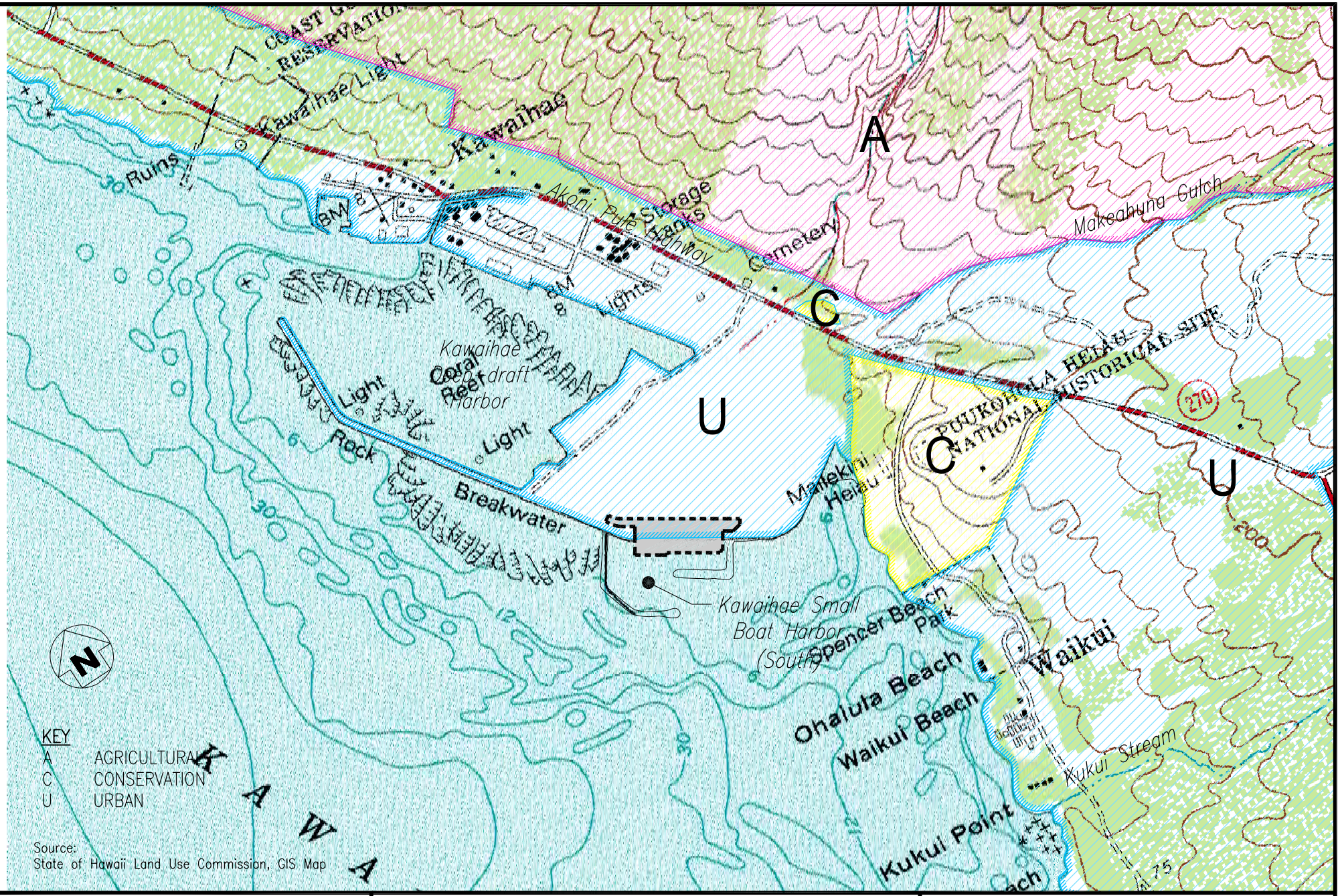
5.4.1 LAND USE DESIGNATIONS

The land use designations for TMK: (3) 6-1-003: Por. 026 are as follows:

State Land Use –	Urban & Conservation (Resource Subzone)
Hawaiʻi County General Plan –	Open
County Zoning –	General Industrial (MG-1a), Multiple-Family Residential District (RM-1.5) & Open

These designations are shown on **Figures 5-5**, **5-6**, and **5-7**, respectively.

Impacts and Mitigative Measures:
The improvements proposed under this project are consistent with the intended land uses under the State Land Use “Urban” designation, the County of Hawaiʻi General Plan “Open” designation, and the County of Hawaiʻi “General Industrial” zoning designation. Harbor activities under the County of Hawaiʻi “Open” and “RM-1.5” zoning designations will require a County Land Use Permit to ensure that the use of the land is entirely consistent with the purpose of those zoning districts. These designations are further discussed in the following sections of this EA.



PATH/FILENAME: P:\Projects\Hawaii\60024966 Kawaihae SBH\500 Deliverables\EA\Figure 5-5.dwg LAST UPDATE: May 21, 2008 @ 11:18:28 am PLOT DATE: May 27, 2008 @ 05:10:25 pm

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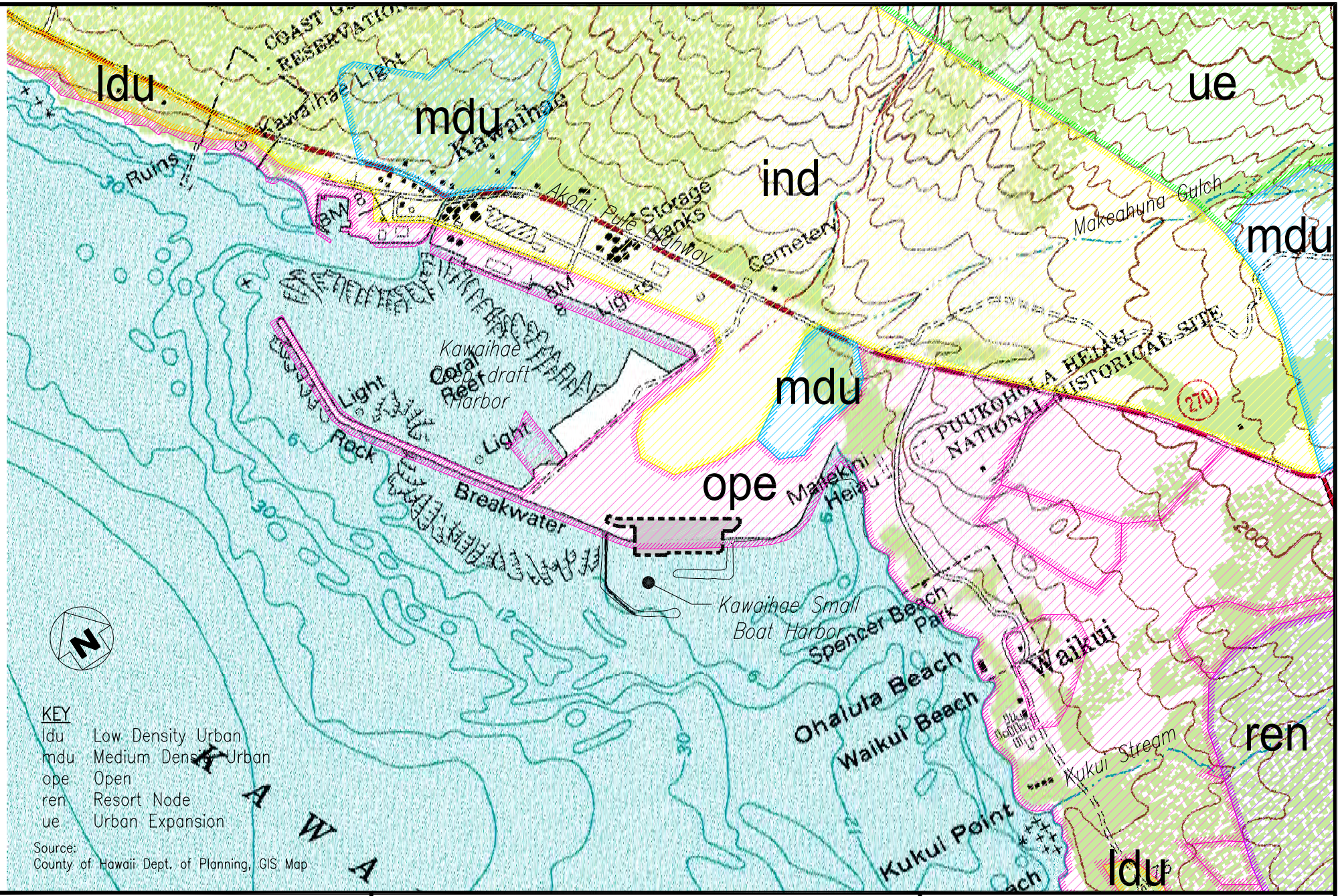
STATE LAND USE MAP

NOT TO SCALE

Figure 5-5
STATE LAND USE MAP
Environmental Assessment for the
Kawaihae Small Boat Harbor (South) Improvements, Phase 1
May 2008



PATH/FILENAME: P:\Projects\Hawaii\60024966 Kawaihae SBH\500 Deliverables\EA\Figure 5-6.dwg LAST UPDATE: May 21, 2008 @ 11:19:42 am PLOT DATE: May 27, 2008 @ 05:11:46 pm

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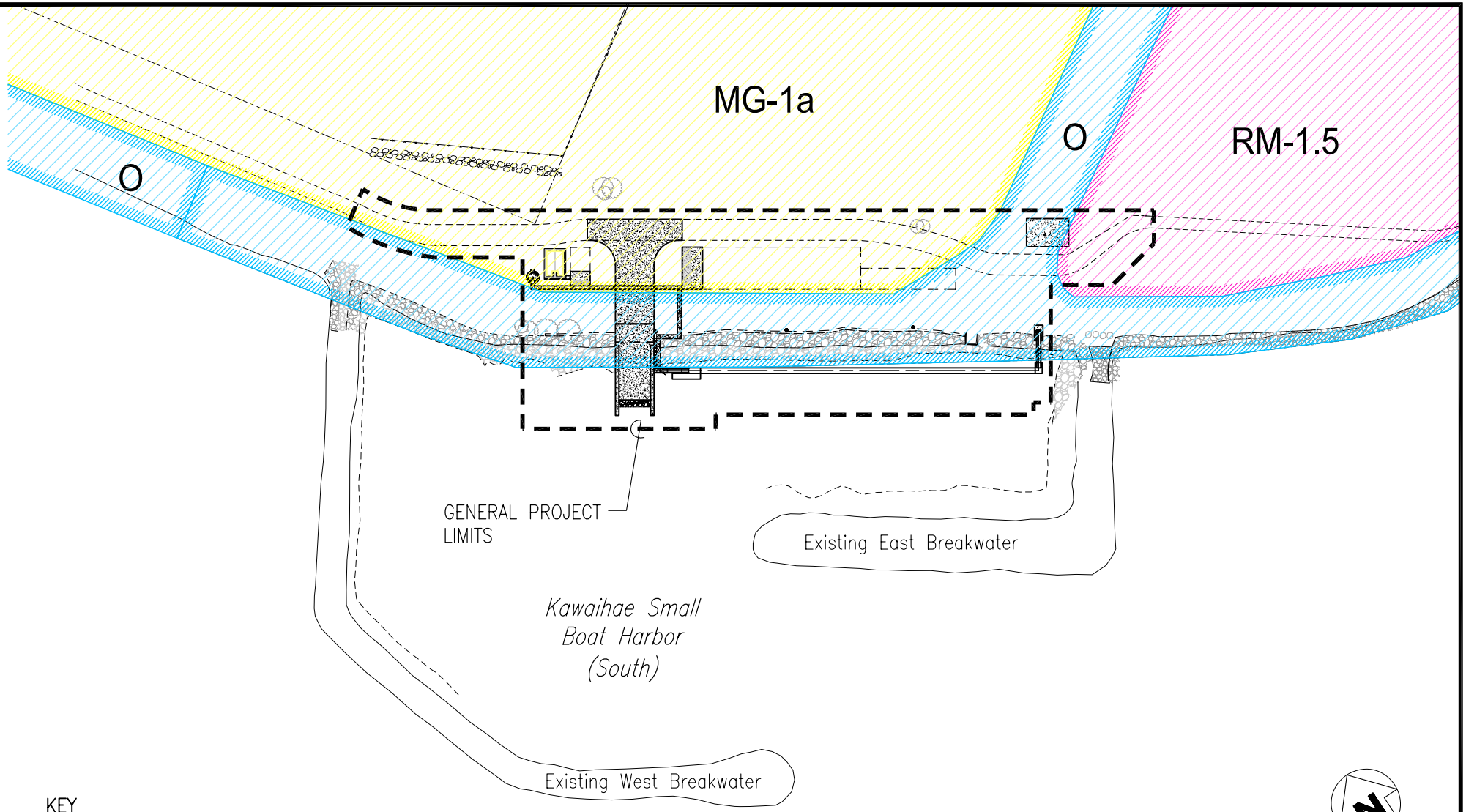
COUNTY GENERAL PLAN

NOT TO SCALE

Figure 5-6
COUNTY GENERAL PLAN
Environmental Assessment for the
Kawaihae Small Boat Harbor (South) Improvements, Phase 1
May 2008



KEY

MG–1a	GENERAL INDUSTRIAL (1 ACRE)
O	OPEN
RM–1.5	MULTIPLE FAMILY RESIDENTIAL (1.5 ACRES)

Source:
County of Hawaii Dept. of Planning, GIS Map

1" = 200'

0 200 400 600

SCALE FEET

PATH/FILENAME: P:\Projects\Hawaii\60024966 Kawaihae SBH\500 Deliverables\EA\Figure 5-7.dwg

LAST UPDATE: May 21, 2008 @ 09:40:10 am

PLOT DATE: May 27, 2008 @ 05:12:42 pm

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COUNTY OF HAWAII ZONING

SCALE: 1"=200'

Figure 5-7
COUNTY OF HAWAII ZONING
Environmental Assessment for the
Kawaihae Small Boat Harbor (South) Improvements, Phase 1
May 2008

The project site is not located within or in the vicinity of a designated Wilderness area, as determined from a review of the Bureau of Land Management, U.S. Fish and Wildlife Service, USDA Forest Service, and the National Park Service Wilderness databases.

The project site is located in an area that is adjacent to the Department of the Army's Kawaihae Military Reservation (KMR). The Army currently uses the KMR to transport personnel and material between Oahu and Hawaiʻi on their heavy boats. The Army does currently utilize the Kawaihae SBH (South) for some of its activities and DLNR-DOBOR, along with DOT-Harbors, has assured the Army that their needs will be accommodated with the development of this project (Ref. 1994 EA).

As directed in the Hawaiʻi Revised Statutes (HRS) Chapter 205A, all activities within the State of Hawaiʻi Coastal Zone Management (CZM) area must be consistent with the policies set by the Hawaiʻi Coastal Zone Management Program and will require a Special Management Area (SMA) Use Permit from the County of Hawaiʻi. This project is consistent with and will not negatively impact any of the ten (10) policy objectives as described under the CZM Management Program. A summary of the site specific CZM Federal consistency assessment is provided in **Appendix F**. Those items with a "yes" response are discussed below. Certification of consistency with the Hawaiʻi CZM program will be required for the County of Hawaiʻi SMA permit.

Recreational Resources

This project is located at the Kawaihae SBH (South), which currently lacks any harbor facilities. The site is not located near a dedicated public right-of-way. The project site abuts the existing revetted shoreline and is located between the Pua Ka Ilima ʻO Kawaihae Cultural Surf Park (to the northwest) and the County of Hawaii Pelekane Beach Park (to the southeast). The proposed action is not anticipated to negatively affect the operation of or access to the surf park of the beach park. The through vehicular and pedestrian access to the surf park will be maintained with the proposed project. The area is popular with local shore fishermen and the improvements will be designed to accommodate and support the activities of the fishermen. The project will positively affect the boating area by providing safe and convenient harbor facilities that will allow a greater portion of the Kawaihae boating community to access the Kawaihae SBH (South). The project area is in the vicinity of a sandy beach (Samuel M. Spencer Beach Park, County of Hawaiʻi), however is not anticipated to affect the use of or access to the beach park. There are swimming and other recreational uses at the County beach park, including diving, canoeing, and surfing. Note that access to Pelekane Beach Park will not be affected by this project. Refer to **Section 5.2.5** of this EA for further discussion.

Historical Resources

The project site includes relatively undeveloped land which has not been surveyed by an archaeologist. However, the land within the project site is comprised of fill soil, which was previously disturbed during the construction of the Kawaihae SBH (South) and its existing breakwaters. The project site is near the Puʻukoholā Heiau National Historic Site, which includes the John Young Homestead historic settlement. A High Salinity Anchialine Pool is approximately one-third of a mile to the northeast of the southern end of the project site. However, due to its location, the proposed project is not anticipated to affect the anchialine pool.

Scenic and Open Space Resources

The adjacent Army parcel (Kawaihae Military Reservation [KMR]) is currently located on fill land, but is otherwise undeveloped. The Army currently uses the KMR to transport personnel and material between Oahu and Hawai'i on their heavy boats. Therefore, with consideration of the utilitarian use of the Army's neighboring parcel, the proposed project will not negatively impact the aesthetics or the scenic view to or from the KMR. While the Kawaihae SBH (South) land-side improvements (comfort station, parking areas, pedestrian user access ramps) will be visible between the nearest coastal roadway and the shoreline, the new facilities will not obstruct the view of the ocean from the shoreline or the coastal roadway. The existing harbor view will be altered in a manner that is consistent with its intended use and as previously accepted by the Kawaihae community and other interested parties. The improvements above and within the harbor waters seaward of the shoreline include the construction of a boat launch ramp, loading docks, and a floating dock with mooring blocks along the rock revetment. These improvements generally will not obstruct the view of the ocean from the shoreline or the coastal roadway.

Coastal Ecosystems

The proposed boat launch ramp and revetment improvements will be constructed within the Shoreline Setback Area (approximately 40 feet from the shoreline), and this project will apply for a Shoreline Setback Variance waiver from the County of Hawai'i. The proposed Kawaihae SBH (South) improvements require earthwork beyond clearing and grubbing, including mass and fine grading activities. The grading work will be done on fill land that was previously disturbed during the initial Kawaihae SBH (South) and breakwater construction. The project includes the construction of an individual wastewater system which is comprised of a septic tank and an absorption bed. The will be located on the *mauka* side of the project area and set at an invert that is approximately 3 feet above the estimated groundwater level. The absorption bed will be constructed with a backfill cover, and it will conform to the Department of Health's standards and requirements.

Economical Uses

The proposed improvements will be constructed at the Kawaihae SBH (South), which is not currently a designated tourist destination, and is not located on agricultural lands. Commercial fishing, seafood production, or other industries are not currently based out of the small boat harbor, although commercial activities are present at the neighboring Deep-draft Harbor. Construction of the proposed project will benefit the commercial users of the Deep-draft Harbor by relocating the light-draft boating traffic from the commercial harbor into the small boat harbor.

Coastal Hazards

As shown on the FIRM, the *makai* portion of the project is located in a special flood hazard area that inundated by the 100-year flood and coastal flood with velocity hazard (wave action) area (Zone VE). The portion of the project within Zone VE corresponds to the 100-year coastal floodplain, and is subject to high velocity waters, including coastal and tidal inundation or tsunamis.

While the existing revetted mole and breakwaters may assist in protecting the Kawaihae SBH (South) against the effects of a tsunami, the water-based features of the proposed harbor improvements may be affected by coastal flooding or tidal inundation from storms or tsunamis. Therefore, these structures will be designed and constructed to mitigate these potential hazards as much as possible. Portions of the existing revetment will be

stabilized and the proposed floating dock will be designed to minimize damage due to flooding or seismic events. The proposed land-based features (comfort station and parking areas) will be constructed above the flood elevation. While complete mitigation of potential storm and flooding events on the proposed facilities is not feasible within the current methods of design and construction, care and consideration will be applied to the design of the facility to minimize property damage and to protect public safety during anticipated storm events. The proposed improvements will not worsen the effects of storm or tsunami events within the harbor area.

Managing Development

The proposed improvements requires the following permits or approvals.

- Department of Army Permit (Section 404),
- Department of Health IWS Permit,
- Department of Health NPDES Permit (NOI-C),
- Department of Health UIC Permit,
- Department of Health Water Quality Certification (Section 401),
- Hawaiʻi Coastal Zone Management Program-Federal Consistency Certification,
- County of Hawaiʻi Shoreline Setback Variance (SSV),
- County of Hawaiʻi SMA Permit, and
- County of Hawaiʻi Use Permit.

The project conforms to State land use designations for the site; however will require a Use Permit from the County of Hawaiʻi to construct the planned *makai* features at the Kawaihae SBH (South). This portion of the project falls within the County of Hawaiʻi Zones “Open” and “RM-1.5”, under which boating facilities are allowed with a Use Permit, provided that the use of the land is compatible with the purposes of the “Open” and “RM-1.5” districts. Additionally, the County of Hawaiʻi will require a Shoreline Setback Variance (SSV) as construction is proposed within 40 feet of the shoreline. The State will provide copies of the plans to the various State and County agencies as necessary.

The public will be notified of this project via various public meetings, consultation letters, letter notifications, and the publication of this EA.

Public Participation

The public will be will be informed about this project via written requests for consultation, several public meetings, and this EA.

Beach Protection

The project site is located near the Pelekane Beach Park and Spencer Beach Park; however, the proposed improvements will be confined to the Kawaihae SBH (South) and are not anticipated to affect the use of or access to the beach parks.

Marine Resources

The proposed improvements are located along the Kawaihae SBH (South) shoreline.

5.4.2 HAWAI'I STATE PLAN

Description:

Chapter 226 of the Hawai'i Revised Statutes provides for long-range planning for the State of Hawai'i. The portions of the Hawai'i State Plan which apply to the proposed Kawaihae Small Boat Harbor (South) Improvements project site are as follows:

> **§226-11 Objectives and policies for the physical environment - - land-based, shoreline, and marine resources.**
> **(a)(1): "**Prudent use of Hawai'i's land-based, shoreline, and marine resources."
> **(b)(9): "**Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes."
>
> **§226-14 Objectives and policies for facility systems - - in general.**
> **(b)(1):** "Accommodate the needs of Hawai'i's people through coordination of facility systems capital improvement priorities in consonance with state and county plans."
>
> **§226-15 Objectives and policies for facility systems - - solid and liquid wastes.**
> **(a)(1): "**Maintenance of public health and sanitation standards relating to treatment and disposal of solid and liquid wastes."
> **(a)(2): "**Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas."
>
> **§226-16 Objectives and policies for facility systems - - water.**
> **(b)(1):** "Coordinate development of land use activities with existing and potential water supply."
>
> **§226-17 Objectives and policies for facility systems - - transportation.**
> **(b)(4): "**Provide for improved accessibility to shipping, docking, and storage facilities."
>
> **§226-23 Objectives and policies for socio-cultural advancement - - leisure.**
> **(b)(5): "**Ensure opportunities for everyone to use and enjoy Hawai'i's recreational resources."

Impacts and Mitigative Measures:

The objectives of the Hawai'i State Plan are the maintenance and pursuit of improved quality in Hawai'i's water quality and the accommodation of Hawai'i's people through coordination of facility systems and capital improvement priorities in agreement with State and County Plans. The proposed actions are consistent with these objectives. Therefore, no mitigative measures are required.

5.4.3 STATE LAND USE LAW

Description:

The State Land Use Law, Chapter 205 of the HRS, classifies all State lands in one of four categories: urban, rural, agricultural, and conservation. Permitted uses for each category are defined in the statute. The State assumes sole management responsibility in the conservation district, County governments assume sole responsibility in the urban district, and both share responsibilities in the rural and agricultural districts.

The project site located at TMK (3) 6-1-003: Por. 026, is within the Urban District, as classified by the State Land Use map (refer to **Figure 5-5**). Consultation with DLNR-Office of Conservation and Coastal Lands (OCCL) indicated that work will occur in the State Land Use (SLU) Conservation District, Resource subzone. The portion within the Conservation District is managed by DLNR-DOBOR. The Urban portion of the project site is under the jurisdiction of the County of Hawaiʻi, and use of this portion is controlled by County Zoning.

Impacts and Mitigative Measures:

The proposed action to install harbor facilities within the Urban District at the Kawaihae SBH (South) is consistent with the Hawaiʻi State Land Use Law, and will follow the requirements as specified by the County of Hawaiʻi Zoning Code as discussed in **Section 5.4.4** of this EA. Per consultation with the State of Hawaiʻi DNLR Office of Conservation and Coastal Lands (OCCL), the proposed improvements within the Conservation District are under the management of DLNR-DOBOR, and are considered within the scope of "routine repair and maintenance for a use of which no permit is required" for the Kawaihae SBH (South). Therefore, a Conservation District Use Application (CDUA) Permit is not required for this project (DNLR-OCCL response letter dated August 16, 2007, **Appendix A-1**). No mitigative measures are required.

5.4.4 COUNTY OF HAWAIʻI

Description:

Under the County of Hawaiʻi's General Plan (2005), the main land use objectives are to 1) designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County, 2) protect and encourage the intensive and extensive utilization of the County's important agricultural lands, and 3) protect forest, water, natural and scientific reserves and open areas.

The project area General Plan land use designation is "Open Area," as shown on **Figure 5-6**.

The project site is located within the County of Hawaiʻi General Industrial - 1 acre (MG-1a), Multiple Family Residential – 1.5 acres (RM-1.5), and Open (O) zoning districts, as shown on **Figure 5-7**. As described in the County of Hawaiʻi Zoning Code, the land within the MG district is generally considered to be offensive or has some element of danger. Yacht harbors and boating facilities are permitted within MG-1a district.

Zone district RM within the County of Hawaiʻi is for medium and high density residential use, but these areas may also occupy transition areas between commercial, industrial, or other districts of less intense land use. Yacht harbors and boating facilities are allowed within the RM zoning district with a use permit.

The County of Hawaiʻi Zoning Code describes O district areas as those that "contribute to the general welfare, the full enjoyment, or the economic well-being of open land type

use which has been established or is proposed. The object of this district is to encourage development around it such as a golf course and park, and to protect investments which have been or shall be made in reliance upon the retention of such open type use, to buffer an otherwise incompatible land use or district, to preserve a valuable scenic vista or an area of special historical significance, or to protect and preserve submerged land, fishing ponds, and lakes." Yacht harbors and boating facilities are allowed within the O zoning district with a Use Permit, provided that the proposed facilities are entirely compatible with the purpose and objectives of the O district.

Impacts and Mitigative Measures:
The proposed project is consistent with the County of Hawai'i's General Plan. Construction of the Kawaihae SBH (South) will not affect the land use or development of agriculture in the district. No short-term or long-term impacts are anticipated; therefore, no mitigative measures are required.

A Use Permit will need to be obtained from the County of Hawai'i to allow the construction of the proposed facilities within the RM-1.5 and O districts. The planned facilities are in line with the objectives of these district; therefore no further mitigative measures are necessary.

5.4.5 PROPERTY OWNERSHIP

Description:
The property affected by the installation of the proposed Kawaihae SBH (South) improvements is identified as 3rd Tax Division TMK: 6-1-003: Por. 026. This parcel is owned by the State of Hawai'i Department of Transportation, Harbors Division (DOT-Harbors).

Impacts and Mitigative Measures:
DOT-Harbors currently owns the property identified by 3rd Tax Division TMK: 6-1-003: Por. 026. The proposed facility does not require the taking of any private lands. DLNR is currently leasing the proposed facility site from DOT-Harbors, and is in discussion with DOT-Harbors to transfer ownership of a portion of the parcel to DLNR-DOBOR for their exclusive development and use. Transferal of the requested lands and extent of land to be transferred are still being coordinated and have not been finalized. No mitigative measures are required.

5.5 OPERATIONS AND OTHER CONSIDERATIONS

Description:
The existing breakwater structures were constructed and improved by the U.S. Army Corps of Engineers (USACE). The responsibility for maintenance of these Federal breakwater structures remains with the USACE. Additionally, the USACE is responsible for maintaining the authorized depths within the entrance channel and turning basin areas.

Impacts and Mitigative Measures:
The proposed facility will not alter or otherwise affect the established water depths within the harbor, the entrance channel, or the turning basin. The USACE requested that a permanent easement right-of-way (ROW) be established to allow for unrestricted maintenance access to the bases of both breakwater structures. These easements should remain clear of permanent obstructions that would impede maintenance or repair activities by the USACE.

To comply with the USACE request, a 20' clearance will be provided from the toe of the east breakwater to the proposed floating dock. The other proposed structures will not impede access any portion of the breakwater structures.

The increased number of visitors and users to the Kawaihae SBH (South) may result in an increase in trash at the harbor facilities. Trash receptacles will be provided at the proposed facilities. DLNR personnel will regularly clean and maintain the facilities, and will properly dispose of collected trash materials at the public Puako Transfer Station or the Waimea open dump. The transfer station is located approximately 5 miles from the harbor, and is equipped with a container trailer and hydraulic compacter. The open dump is located approximately 9 miles from the project site.

SECTION 6

DETERMINATION WITH SUPPORTING FINDINGS AND REASONS

In accordance with Chapter 343, Hawai'i Revised Statutes and the National Environmental Policy Act, this Environmental Assessment characterizes the technical, social and environmental issues related to the Kawaihae SBH (South) Improvements, Phase 1 project. It identifies potential project impacts to the environment and their significance. It is anticipated that the proposed project will not exert any significant impacts to the environment. Therefore, the State of Hawai'i DLNR is issuing a Finding of No Significant Impact (FONSI).

This determination of the FONSI is based upon thirteen (13) significance criteria listed in HAR §11-200-12 of the Environmental Impact Statement Rules. The specific criteria used in making this determination are addressed below:

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

   Construction of the proposed facilities will not irrevocably commit to loss or destruction of natural or cultural resources. No cultural resources have been identified within the project site. If previously unknown resources are uncovered during the course of construction, the Contractor will stop work immediately and notify the SHPD who will determine the appropriate treatment.

2. *Curtails the range of beneficial uses of the environment:*

   The proposed actions will not curtail the range of beneficial uses of the environment. The proposed actions to install boating facilities at the Kawaihae SBH (South) will encourage the intended use of the site as per the approved Kawaihae Small Boat Harbor (South) Master Plan.

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 harbor facilities are consistent with the State's goals and objectives as described in the previous sections of this EA.

4. *Substantially affects the economic or social welfare of the community or state:*

   The proposed actions will not substantially affect social welfare of the community in a negative manner. There will be no road or lane closures during the construction of the facilities. The proposed actions will improve the economic and social welfare of the affected communities by providing a safe and facility dedicated for light-draft vessel and recreational water-related activities.

5. *Substantially affects public health:*

   The proposed activities will not substantially affect public health in a negative manner. Separating the light-draft vessels from the commercial vessels at the Deep-draft Harbor will make both commercial activity and light-draft activity safer

for all users of the Kawaihae boating community. During construction, environmental pollutants will be mitigated to regulated levels by using the appropriate BMPs and construction methods.

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

The Kawaihae SBH (South) facilities will not lead to secondary impacts such as population changes or effects on public facilities beyond that of the County General Plan.

7. *Involves a substantial degradation of environmental quality:*

The proposed project will not degrade the environmental quality of the project site. The existing quality of the project site will remain. The proposed construction will take place within a defined portion of the project site and will not affect the environmental quality of the area.

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

Installation of the proposed boating facilities will not have a cumulative effect on the environment. The facilities constructed with this project will not require commitment for larger action.

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

The proposed project will not substantially affect any rare, threatened, or endangered species or its habitat. The project site is not a known critical or nesting habitat for rare, threatened, or endangered species.

10. *Detrimentally affects air or water quality or ambient noise levels:*

The proposed projects will not substantially degrade environmental quality. Any notable adverse effects on air and water quality and ambient noise levels will be short-term and construction-related only. Air quality and noise levels will not exceed State DOH standards. This project will not result in long-term adverse effects. Upon completion of construction activities, air and water qualities will revert to prior levels. Any increase in ambient noise levels is anticipated to be minor in comparison to the noise levels in the surrounding community, and is considered negligible.

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

The proposed project is located along an existing revetted shoreline that is located within a flood plain and tsunami excavation zone. The proposed action will not detrimentally affect the area in or near the project area; however the proposed facilities may potentially be damaged should a severe tsunami or flooding event occur. Damage to the comfort station at the project site will be avoided by placing the facility pad above the flood elevation. The boat launch

ramp and dock will be designed to withstand a tsunami hazard in accordance with current regulatory design standards. The project site is located in a volcanic hazard zone of 9 (areas with the lowest risk); however, it is in an area that may experience some seismic activity and that may be exposed to hurricanes and strong winds.

Although damage may occur to the facilities during occasions of severe hurricanes, earthquakes and lava flows, no practical mitigative measures are currently available for a project of this nature. The proposed project will comply with the current regulatory design standards.

12. *Substantially affects scenic vistas and view planes identified in county or state plans or studies:*

Activities associated with the installation of the proposed facilities are not anticipated to change or alter the character of the site, except as intended by the accepted Kawaihae SBH (South) Master Plan (2003).

13. *Requires substantial energy consumption:*

The Kawaihae SBH (South) facilities will not require substantial energy consumption. Energy will be required for site lighting as well as lighting in and around the comfort station, and is considered minor in scope.

This project represents the first phase of the full development of the Kawaihae Small Boat Harbor (South), which was previously approved under the 1985 Environmental Impact Statement.

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SECTION 7

PERMITS AND APPROVALS REQUIRED

FEDERAL

Department of Army Permit (404)

STATE

Department of Health IWS Permit
Department of Health NPDES Permit (NOI-C, Other NOIs as required)
Department of Health UIC Permit
Department of Health Water Quality Certification (Section 401)
Hawai'i Coastal Zone Management (CZM) Program Federal Consistency Certification

COUNTY OF HAWAI'I

Shoreline Setback Variance
SMA Permit
Use Permit

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SECTION 8

REFERENCES

Federal Emergency Management Agency, *Flood Insurance Rate Map*, *Hawai'i County, Hawai'I*, 2004.

First American Real Estate Solutions, 2004, *State of Hawai'i – Third Tax Division – Real Estate Handbook – Zones 1-9*, 38th Edition, Anaheim, CA.

Foote, D.E., Hill, E.L., Nakamura, S., Stephens, F., *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawai'i*, U.S. Department of Agriculture, Soil Conservation Service, 1972.

Harbors Division, Department of Transportation, State of Hawai'i, January 1995, *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor*.

Hawai'i, County of, *County of Hawai'i General Plan 2005*, 2005.

Hawai'i Department of Business, Economic Development and Tourism, State of, *CENSUS 2000*, 2000.

Hawai'i Department of Business, Economic Development, and Tourism, Office of Planning, Agricultural Lands of Importance to the State of Hawai'i (ALISH) Maps, website address: http://www.eHawaiigov.org/dbedt/op/html/gismapsalish.html

Hawai'i Department of Health, State of, 2004, *2004 Annual Summary Hawai'i Air Quality Data*, website address:
http://www.Hawaii.gov/health/environmental/air/cab/cabmaps/pdf/databook2004.pdf

Hawai'i Department of Land and Natural Resources, State of, 2002, *State Historic Preservation Division Inventory of Historic Properties*, website address:
http://www.state.hi.us/dlnr/hpd/register/reghaw.pdf

Hawai'i Revised Statutes.

Hawai'i, State of, *2004 State of Hawai'i Data Book A Statistical Abstract*.

Island of Hawai'i Aquifer Map, October 10, 1995, website address:
http://www.Hawai'i.gov/dlnr/cwrm/data/gwHawaii.pdf

M&E Pacific, Inc., *Master Plan for Kawaihae Small Boat Harbor (South)*, December 2003.

National Wilderness Preservation System Database, December 2004, website address:
http://www.wilderness.net/index.cfm?fuse=NWPS&sec=map

Sea Engineering, Inc., *Phase I Berthing and Facilities Plan, Kawaihae Small Boat Harbor*, April 1998.

U.S. Army Engineer District, *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels*, December 1994.

U.S. Environmental Protection Agency, *Sole Source Aquifer Designations in EPA, Region 9*, June 2000.

U.S. Fish and Wildlife Service, Wetlands Online Mapper, September 2005, website address: http://wetlandsfws.er.usgs.gov/wtlnds/launch.html

U.S. Fish and Wildlife Service Wilderness Areas, September 2002, website address: http://www.fws.gov/realty/table10.html

Volcanic Hazard Zones of the Island of Hawai'i, 1987, website address: http://pubs.usgs.gov/gip/hazards/maps.html

Water Quality Standards Map of the Island of Hawai'i, October 1987, website address: http://www.Hawai'i.gov/health/environmental/water/cleanwater/wqsmaps/pdf/Hawaii.pdf

APPENDIX A-1

PRE-ASSESSMENT CORRESPONDENCE AND COMMENTS RECEIVED

- **Pre-Assessment Request Letters**
- **Pre-Assessment Comments Received**

PRE-ASSESSMENT REQUEST LETTERS

Federal
Advisory Council on Historic Preservation
NOAA/National Marine Fisheries Service
U.S. Army Corps of Engineers
U.S. Coast Guard, 14th C.G. District
U.S. Department of the Interior, National Park Service
U.S. Department of the Interior, U.S. Fish and Wildlife Service (FWS)
U.S. Department of Transportation, Maritime Administration (MARAD)
U.S. Environmental Protection Agency (EPA), Region 9

State of Hawai‘i
Department of Business, Economic Development and Tourism (DBEDT), Office of Planning
Department of Hawaiian Home Lands (DHHL)
Department of Health (DOH), County of Hawai‘i District Health Office
Department of Land and Natural Resources (DLNR), Aquatic Resources Division-Kona
Department of Land and Natural Resources (DLNR), Historic Preservation Division (SHPD)
Dept. of Land and Natural Resources (DLNR), Office of Conservation and Coastal Lands
Department of Transportation (DOT)
Department of Transportation, Harbors Division (DOT-Harbors)
Hawai‘i Natural Heritage Program
Office of Hawaiian Affairs (OHA)
State Conservationist, USDA, Natural Resources Conservation Service (NRCS)

County of Hawai‘i
Department of Environmental Management (DEM)
Department of Parks and Recreation
Department of Public Works
Department of Water Supply
Hawai‘i County Council
Mayor Harry Kim
Planning Department

Community
Hawai‘i’s 1000 Friends
Historic Hawai‘i Foundation
Hui Malama I Na Kupuna O Hawai‘i Nei
Kawaihae Boating Association
Kohala Trollers Club
The Nature Conservancy
The Outdoor Circle
Pua Ka Ilima ‘O Kawaihae Cultural Surf Park, Inc.
University of Hawai‘i at Manoa Department of Oceanography
University of Hawai‘i at Manoa Environmental Center
University of Hawai‘i at Manoa Water Resources Research Center
Waimea-Kawaihae Community Association

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July 11, 2007

Mr. Don Klima, OFAP Director
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue, NW, Suite 809
Washington, DC 20004

Dear Mr. Klima,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-foot wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

An Environmental Impact Statement (EIS) and an Environmental Assessment (EA), which obtained a Finding of No Significant Impact (FONSI) determination, were previously written for the planning and construction of the Kawaihae Small Boat Harbor. Their findings are summarized below.

The *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* was prepared by State of Hawaii, Department of Transportation, Harbors Division in January 1985 for the full development of the Kawaihae Small Boat Harbor. According to the EIS, "approximately 600 feet to the south, however, is the Pu'ukohola Heiau National Historic Site, a 77-acre area consisting of three ceremonial Hawaiian temples (heiaus), petroglyphs, and the John Young Homesite." The EIS states that "a no-effect determination was established by the State Historic Preservation Officer for the underwater Hale o Ka Puni Heiau." The EIS also points out that "the proposed harbor plan would also present an additional visual intrusion into the existing seascape fronting the National Historical Site. This intrusion is not considered to be adverse in the sense of altering the historic integrity of the site, because the original historic coastline was irreversibly altered in the 1950s by construction of the coral fill area southeast of the deep-draft harbor."

The *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* was prepared by the U.S. Army Engineering District in December 1994, for the construction of the existing east and west breakwaters shown on the schematic plan. Research done for that EA indicated that "there are no sites listed on or eligible for the National Register Historic Places located within the harbor or the area designated for shoreside facilities or the area to be traversed by heavy equipment or used as the contractor's work and storage area." The EA states that "immediately adjacent to the south of the proposed harbor site is the Pu'ukohola Heiau National Historic Site, a National Landmark operated by the National Park Service. The major features within the park are the Pu'ukohola heiau, Mailekini heiau, Hale o Ka Puni heiau, the upper portion of the John Young homestead and the Pelekane (royal household area)." The EA specifies that "mitigation of possible visual impacts on Pu'ukohola Heiau National Historic Site through appropriate landscaping" and "vibrations from the operation of heavy equipment on the fill area are not expected to affect any of the historic properties."

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We are currently in the process of consulting various State and Local Agencies, as well as Native Hawaiian Organizations to determine if there are any potential project impacts to historic sites and archeological resources. However, from the initial research performed and information from the EA and EIS, a Finding of No Significant Impact (FONSI) is anticipated for the proposed project.

Based on our investigation, it is anticipated that the proposed project will have no adverse impacts on historical or archaeological resources in the project area. Pursuant to Section 106 of the National Historical Preservation Act, we request your comments regarding historic and archaeological concerns towards the proposed project.

We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Thank very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Schematic Site Map
(3) TMK Map

cc: Project File
Ms. Valerie Suzuki, DLNR Engineering Division
Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

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July 11, 2007

Mr. Bill Robinson, Manager
Pacific Islands Regional Office
NOAA/National Marine Fisheries Service
1601 Kapiolani Blvd., Suite 1110
Honolulu, HI 96814

Dear Mr. Robinson,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

We are seeking your consultation on this project to identify any potential effects this project may have on the project area, the surrounding community, or any concerns the NOAA may have with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

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Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

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M&E Pacific, Inc.
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July 11, 2007

Commander
U.S. Army Corps of Engineers
Building 230
Fort Shafter, HI 96858-5440

Dear Commander,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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We are seeking your consultation on this project to identify any potential effects this project may have on the project area, the surrounding community, or any concerns the Corps may have with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

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July 11, 2007

Commander
U.S. Coast Guard, 14th C.G. District
300 Ala Moana Blvd., Suite 9-108
Honolulu, HI 96850-4982

Dear Commander,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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We are seeking your consultation on this project to identify any potential effects this project may have on the project area, the surrounding community, or any concerns the Coast Guard may have with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

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Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
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July 24, 2007

Superintendent
U.S. Department of the Interior
National Park Service
62-3601 Kawaihae Road
Kawaihae, HI 96743

Dear Superintendent,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 45-foot wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

An Environmental Impact Statement (EIS) and an Environmental Assessment (EA), which obtained a Finding of No Significant Impact (FONSI) determination, were previously written for the planning and construction of the Kawaihae Small Boat Harbor. Their findings are summarized below.

The *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* was prepared by State of Hawaii, Department of Transportation, Harbors Division in January 1985 for the full development of the Kawaihae Small Boat Harbor. According to the EIS, "approximately 600 feet to the south, however, is the Pu'ukohola Heiau National Historic Site, a 77-acre area consisting of three ceremonial Hawaiian temples (heiaus), petroglyphs, and the John Young Homesite." The EIS states that "a no-effect determination was established by the State Historic Preservation Officer for the underwater Hale o Ka Puni Heiau." The EIS also points out that "the proposed harbor plan would also present an additional visual intrusion into the existing seascape fronting the National Historical Site. This intrusion is not considered to be adverse in the sense of altering the historic integrity of the site, because the original historic coastline was irreversibly altered in the 1950s by construction of the coral fill area southeast of the deep-draft harbor."

The *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* was prepared by the U.S. Army Engineering District in December 1994, for the construction of the existing east and west breakwaters shown on the schematic plan. Research done for that EA indicated that "there are no sites listed on or eligible for the National Register Historic Places located within the harbor or the area designated for shoreside facilities or the area to be traversed by heavy equipment or used as the contractor's work and storage area." The EA states that "immediately adjacent to the south of the proposed harbor site is the Pu'ukohola Heiau National Historic Site, a National Landmark operated by the National Park Service. The major features within the park are the Pu'ukohola heiau, Mailekini heiau, Hale o Ka Puni heiau, the upper portion of the John Young homestead and the Pelekane (royal household area)." The EA specifies that "mitigation of possible visual impacts on Pu'ukohola Heiau

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National Historic Site through appropriate landscaping" and "vibrations from the operation of heavy equipment on the fill area are not expected to affect any of the historic properties."

We are currently in the process of consulting various State and Local Agencies, as well as Native Hawaiian Organizations to determine if there are any potential project impacts to historic sites and archeological resources. However, from the initial research performed and information from the EA and EIS, a Finding of No Significant Impact (FONSI) is anticipated for the proposed project.

Based on our investigation, it is anticipated that the proposed project will have no adverse impacts on historical or archaeological resources in the project area. Pursuant to Section 106 of the National Historical Preservation Act, we request your comments regarding historic and archaeological concerns towards the proposed project.

We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Thank very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Schematic Site Map
(3) TMK Map

cc: Project File
Ms. Valerie Suzuki, DLNR Engineering Division
Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

We are still writing the book

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July 11, 2007

Mr. Patrick Leonard, Field Supervisor
U.S. Fish & Wildlife Service, Pacific Region
300 Ala Moana Boulevard, #3-122
Honolulu, HI 96850

Dear Mr. Leonard,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH.

The EA was prepared in December 1994, for the construction of the existing east and west breakwaters shown on the schematic plan. Research done for that EA indicated that "there are no Federally listed endangered, threatened, candidates or proposed species of terrestrial plant or animals or their critical habitat within the project area." While the Hawaiian Hawk and Hawaiian Bat occasionally forage in the general harbor area, neither species nest, breed or roost in the area. Two rare marine species are common in the area, however; the humpback whale is seen in the area during "whale season" and green sea turtles are often near the small boat harbor breakwater. Although this is a feeding area for the turtles it "is not suitable for nesting or basking as there is no convenient access to the land and the land is unsuitable for nest building." A Finding of No Significant Impact (FONSI) was obtained by this EA.

We have consulted the Hawaii Natural Heritage Program (HNHP) at the University of Hawaii at Manoa Center for Conservation Research and Training and were informed that no rare or endangered species have been recorded in or near the project area. From the initial research performed and the information from the 1994 EA, a Finding of No Significant Impact (FONSI) is anticipated for the proposed project.

Based on our investigation and research, it is anticipated that the proposed project will have no adverse impacts on rare or endangered species in the project area. Pursuant to Section 7, Endangered Species Act, we request your comments regarding concerns towards the proposed project. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com

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Martin.Nakasone@m-e.aecom.com

Thank very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Schematic Site Map
(3) TMK Map

cc: Project File
Ms. Valerie Suzuki, DLNR Engineering Division
Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

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July 11, 2007

Mr. Sean Connaughton, Maritime Administrator
U.S. Dept. of Transportation, Maritime Administration (MARAD)
West Building
Southeast Federal Center
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Mr. Connaughton,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

We are seeking your consultation on this project to identify any potential effects this project may have on the project area, the surrounding community, or any concerns with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

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July 11, 2007

Mr. Dean Higuchi
Pacific Islands Contact Office
U.S. EPA, Region 9
P.O. Box 50003
Honolulu, HI 96850

Dear Mr. Higuchi,

Subject: Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

The Kawaihae SBH project is not expected to have major impacts on the environment. Construction related impacts which would be mitigated using best management practices (BMPs). The groundwater, marine water quality, dust, air quality, and noise levels will be monitored as required. During construction no critical habitats will be displaced. There are no threatened, rare, or endangered species that breed or nest in the area.

Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

We are seeking your consultation on this project to identify any potential effects this project may have on the project area, the surrounding community, or any concerns with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

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Martin Nakasone
Engineering Manager

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July 11, 2007

Mr. Theodore Liu, Director
Dept. of Business, Economic Development and Tourism
Office of Planning
P.O. Box 2359
Honolulu, HI 96804

Dear Mr. Liu,

Subject: Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

This project includes the design and construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, schematic site map and TMK map are attached.

Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

Based on our initial investigation, it is anticipated that the proposed project will have no adverse impacts on the project area and the surrounding community. Pursuant to Chapter 205A of the Hawaii Revised Statues and the Coastal Zone Management (CZM) Program, we request your comments regarding any concerns towards the proposed project, the surrounding community, or any concerns with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

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Engineering Manager

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July 11, 2007

Mr. Ken Taguchi, Information & Community Relations
Dept. of Hawaiian Home Lands
1099 Alakea Street, Suite 2000
Honolulu, HI 96813

Dear Mr. Taguchi,

Subject: Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

We are seeking your consultation on this project to identify any potential effects this project may have on the project area, the surrounding community, or any concerns with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

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Martin Nakasone
Engineering Manager

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Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
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July 11, 2007

Ms. Karleen Yoshioka, District Health Officer
Department of Health
District Health Office
P.O. Box 916
Hilo, HI 96720

Dear Ms. Yoshioka,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

We are seeking your consultation on this project to identify any potential effects this project may have on the project area, the surrounding community, or any concerns with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

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July 11, 2007

Dr. William Walsh, PhD, Aquatic Biologist
Dept. of Land and Natural Resources
Aquatic Resources Division-Kona
74-380B Kealakehe Parkway
Kailua-Kona, HI 96740

Dear Dr. Walsh,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

We are seeking your consultation on this project to identify any potential effects this project may have on the aquatic resources in the project area and the surrounding community, or any concerns with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

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Martin.Nakasone@m-e.aecom.com

Thank very much for your time and assistance.

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M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

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841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
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July 11, 2007

Ms. Melanie A. Chinen, Administrator
Dept. of Land and Natural Resources
State Historic Preservation Division (SHPD)
Kakuhihewa Building
601 Kamokila Blvd., Suite 555
Kapolei, HI 96707

Dear Ms. Chinen,

Subject: Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant (FONSI) determination. Their findings are summarized below.

The EA was prepared by the U.S. Army Engineering District in December 1994, for the construction of the existing east and west breakwaters shown on the schematic plan. Research done for that EA indicated that "there are no sites listed on or eligible for the National Register Historic Places located within the harbor or the area designated for shoreside facilities or the area to be traversed by heavy equipment or used as the contractor's work and storage area." The EA states that "immediately adjacent to the south of the proposed harbor site is the Pu'ukohola Heiau National Historic Site, a National Landmark operated by the National Park Service. The major features within the park are the Pu'ukohola heiau, Mailekini heiau, Hale o Ka Puni heiau, the upper portion of the John Young homestead and the Pelekane (royal household area)." The EA specifies that "mitigation of possible visual impacts on Pu'ukohola Heiau National Historic Site through appropriate landscaping" and "vibrations from the operation of heavy equipment on the fill area are not expected to affect any of the historic properties."

The Environmental Impact Statement (EIS) was prepared by State of Hawaii, Department of Transportation, Harbors Division in January 1985 for the full development of the Kawaihae Small Boat Harbor. According to the EIS, "approximately 600 feet to the south, however, is the Pu'ukohola Heiau National Historic Site, a 77-acre area consisting of three ceremonial Hawaiian temples (heiaus), petroglyphs, and the John Young Homesite." The EIS states that "a no-effect determination was established by the State Historic Preservation Officer for the underwater Hale o Ka Puni Heiau." The EIS also points out that "the proposed harbor plan would also present an additional visual intrusion into the existing seascape fronting the National Historical Site. This intrusion is not considered to be adverse in the sense of altering the historic integrity of the site, because the original historic

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coastline was irreversibly altered in the 1950s by construction of the coral fill area southeast of the deep-draft harbor."

We are currently in the process of consulting various State and Local Agencies, as well as Native Hawaiian Organizations to determine if there are any potential project impacts to historic sites and archeological resources. However, from the initial research performed and information from the EA and EIS, a Finding of No Significant Impact (FONSI) is anticipated for the proposed project.

Based on our investigation, it is anticipated that the proposed project will have no adverse impacts on historical or archaeological resources in the project area. Pursuant to Section 106 of the National Historical Preservation Act, we request your comments regarding historic and archaeological concerns towards the proposed project.

We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Thank very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Schematic Site Map
(3) TMK Map

cc: Project File
Ms. Valerie Suzuki, DLNR Engineering Division
Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

July 11, 2007

Mr. Samuel Lemmo, Administrator
Dept. of Land and Natural Resources
Office of Conservation and Coastal Lands
P.O. Box 621
Honolulu, HI 96809

Dear Mr. Lemmo,

Subject: Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

The project site has a State Land Use classification of "Urban"; however, it is located near a Conservation District. The Pu'ukohola Heiau National Historic Site is located in the adjacent Conservation District. We would like to verify that the proximity of the proposed project site necessitates a Conservation District Use Application (CDUA) to be submitted for the proposed project.

We are seeking your consultation on this project to identify any potential effects this project may have on the project area and the surrounding community, or any concerns with the proposed improvements. Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

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Martin Nakasone
Engineering Manager

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July 11, 2007

Mr. Barry Fukunaga, Interim Director
Dept. of Transportation
869 Punchbowl Street.
Honolulu, Hi 96813-5097

Dear Mr. Fukunaga,

Subject: Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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The existing small boat harbor is insufficient for complete operations of light-draft vessels. In its current condition, only small powerboats and manually propelled water vessels are capable of using the small boat harbor. There have been recent instances of interference from small boats with large commercial vessels which necessitates the termination of the existing SBH operations. DLNR is proposing to improve and develop a portion of the Kawaihae SBH to service light-draft watercraft operations in the tributary area to reduce traffic within the existing harbor. This project includes facilities to provide a safe, efficient and accessible recreational area for boating and fishing. During construction, there will be an increase in vehicular traffic; however, construction activities are not expected to affect the activities of the Kawaihae Harbor.

Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

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Martin Nakasone
Engineering Manager

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Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
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July 11, 2007

Mr. Glenn Okimoto, Harbors Administrator
Dept. of Transportation
Harbors Division
79 South Nimitz Highway, Room 310
Honolulu, Hi 96813-4898

Dear Mr. Okimoto,

Subject: Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

We are seeking your consultation on this project to identify any potential effects this project may have on the project area and the surrounding community, or any concerns with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

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Thank very much for your time and assistance.

METCALF & EDDY | AECOM

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M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

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(2) Schematic Site Map
(3) TMK Map

cc: Project File
Ms. Valerie Suzuki, DLNR Engineering Division
Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

Hikiji, Jamie

From: Hikiji, Jamie
Sent: Tuesday, June 05, 2007 11:22 AM
To: Roy Kam
Subject: Kawaihae Small Boat Harbor (South) Improvements - Request for Review
Attachments: Kawaihae SBH Improvements.pdf

Mr. Kam,

The State of Hawaii Department of Land and Natural Resources is proposing to improve a portion of the Kawaihae Small Boat Harbor (South) in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to update the Environmental Assessment prepared for work previously done at the harbor.

The original EA was prepared in December 1994, for the construction of the existing east and west breakwaters shown on the schematic plan. Research done for that EA indicated that "there are no Federally listed endangered, threatened, candidate or proposed species of terrestrial plant or animals or their critical habitat within the project area." While the Hawaiian Hawk and Hawaiian Bat occasionally forage in the general harbor area, neither species nest, breed or roost in the area. Two rare marine species are common in the area, however; the humpback whale is seen in the area during "whale season" and green sea turtles are often near the small boat harbor breakwater. Although this is a feeding area for the turtles it "is not suitable for nesting or basking as there is no convenient access to the land and the land is unsuitable for nest building."

We are seeking your consultation on this project to identify any other threatened or endangered species within or in the vicinity of the project site. The affected area is located at TMK (3)6-1-003: Por. 026. A general location map, TMK map and schematic site plan are provided in the attached file for your information and review.

This project will include the design and construction of a boat ramp with ADA access, a floating dock with ADA accessible gangway, grading and drainage for an unpaved area of boat and trailer parking, a comfort station with individual wastewater system, potable overland waterline and electrical service to the comfort station and dock area, and other miscellaneous fencing, signage, grading and drainage as required.

We would like to request a listing of those endangered or threatened species that may be impacted by this project.

If there are any questions, please contact me at (808) 521-3051, fax (808) 524-0246 or e-mail Jamie.Hikiji@m-e.aecom.com.

Thank you,

Jamie Hikiji
M&E Pacific, Inc.
METCALF&EDDY | AECOM
Davies Pacific Center
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

808.521.3051 (Voice)
808.524.0246 (Fax)
Jamie.Hikiji@m-e.aecom.com

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

July 11, 2007

Ms. Ululani Sherlock, Community Resource Coordinator
Office of Hawaiian Affairs
162-A Baker Avenue
Hilo, HI 96720

Dear Ms. Sherlock,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

We are seeking your consultation on this project to identify potential impacts, if any, on Native Hawaiian people or practices. We would also like to request contact information on any other organizations that may be interested in reviewing this project. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Thank very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

METCALF & EDDY | AECOM

Enclosures: (1) Project Location Map
(2) Schematic Site Map
(3) TMK Map

cc: Project File
Ms. Valerie Suzuki, DLNR Engineering Division
Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

July 11, 2007

Mr. Milton Marinez, Soil Scientist
State Conservationist
Natural Resources Conservation Service
P.O. Box 50004
Honolulu, HI 96850

Dear Mr. Martinez,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
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July 11, 2007

Ms. Bobby-Jean Leithead-Todd, Director
County of Hawaii
Dept. of Environmental Management
25 Aupuni Street, Room 210
Hilo, HI 96720

Dear Ms. Leithead-Todd,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

July 11, 2007

Ms. Patricia Engelhard, Director
County of Hawaii
Dept. of Parks and Recreation
101 Pauahi Street, Suite 6
Hilo, HI 96720

Dear Ms. Engelhard,

Subject: Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
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July 11, 2007

Mr. Bruce McClure, Director
County of Hawaii
Dept. of Public Works
75-5706 Kuakini Hwy., Suite 109-111
Kailua-Kona, Hi 96740

Dear Mr. McClure,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

July 11, 2007

Mr. Milton Pavao, Department Head
County of Hawaii
Dept. of Water Supply
345 Kekuanaoa Street, Suite 20
Hilo, HI 96720

Dear Mr. Pavao,

Subject: Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

Based on our research, there is a 12-inch water main along Kawaihae Road and a 1-inch overland waterline near the east breakwater servicing the existing YMCA boating facility. The proposed project will connect to the overland to service the proposed facility. The proposed project will conform to the County of Hawaii, Department of Water Supply (DWS) rules and regulations and the Water System Standards.

Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

We are seeking your consultation on this project to identify any potential effects this project may have on the project area and the surrounding community, or any concerns with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Thank very much for your time and assistance.

METCALF & EDDY | AECOM

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Schematic Site Map
(3) TMK Map

cc: Project File
Ms. Valerie Suzuki, DLNR Engineering Division
Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

We are still writing the book

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

July 11, 2007

Mr. Pete Hoffman, Council Chair
Hawaii County Council
64-1067 Mamalahoa Hwy., Suite C-5
Kamuela, Hi 96743

Dear Mr. Hoffman,

Subject: Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

We are seeking your consultation on this project to identify any potential effects this project may have on the project area and the surrounding community, or any concerns with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

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Thank very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

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Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

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July 11, 2007

Mr. Harry Kim, Mayor
County of Hawaii
Office of the Mayor
25 Aupuni Street
Hilo, HI 96720

Dear Mayor Kim,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

We are seeking your consultation on this project to identify any potential effects this project may have on the project area and the surrounding community, or any concerns with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

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Martin.Nakasone@m-e.aecom.com

Thank very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

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(2) Schematic Site Map
(3) TMK Map

cc: Project File
Ms. Valerie Suzuki, DLNR Engineering Division
Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

We are still writing the book

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
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Mr. Chris Yuen
County of Hawaii
Planning Department
75-5706 Kuakini Hwy., Suite 109
Kailua-Kona, Hi 96740

Dear Mr. Yuen,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026. The proposed project is located within a Special Management Area (SMA).

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

We are seeking your consultation on this project to identify any potential effects this project may have on the project area and the surrounding community, or any concerns with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Thank very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Schematic Site Map

METCALF & EDDY | AECOM

(3) TMK Map

cc: Project File
Ms. Valerie Suzuki, DLNR Engineering Division
Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

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July 11, 2007

Ms. Donna Wong, Executive Director
Hawaii's 1000 Friends
25 Maluniu Avenue
Suite 102#282
Kailua, HI 96734

Dear Ms. Wong,

Subject: Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

We are seeking your consultation on this project to identify any potential effects this project may have on the community, or any concerns your organization may have with the proposed work. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Thank very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

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Enclosures: (1) Project Location Map
(2) Schematic Site Map
(3) TMK Map

cc: Project File
Ms. Valerie Suzuki, DLNR Engineering Division
Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

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841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
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July 11, 2007

Ms. Kiersten Faulkner, Executive Director
Hawaii Historic Foundation
680 Iwilei Road, Suite 690
Honolulu, HI 96817

Dear Ms. Faulkner,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

According to our research, the only registered Hawaiian or National Historic place in the vicinity of the project site is the Puukohola Heiau National Historic Site, which is a National landmark operated by the National Park Service. This historic site is located immediately adjacent to the South of the Kawaihae Small Boat Harbor; however it is not within the proposed project area. Based on our investigation, it is anticipated that the proposed project will have no adverse impact to this or any other historical or archaeological resources in the project area.

Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

We are seeking your consultation on this project to identify any potential effects this project may have on the project area, the surrounding community, or any concerns the Hawaii Historic Foundation may have with the proposed improvements. We will assume that your organization has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Thank very much for your time and assistance.

METCALF & EDDY | AECOM

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Schematic Site Map
(3) TMK Map

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Ms. Valerie Suzuki, DLNR Engineering Division
Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

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841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
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July 11, 2007

Mr. Edward Halealoha Ayau
Hui Malama I Na Kupuna O Hawaii Nei
P.O. Box 190
Haleiwa, HI 96712

Dear Mr. Ayau,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

We are seeking your consultation on this project to identify potential impacts, if any, on the Native Hawaiian people or practices. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Thank very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map

METCALF & EDDY | AECOM

(2) Schematic Site Map
(3) TMK Map

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Ms. Valerie Suzuki, DLNR Engineering Division
Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
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July 19, 2007

Mr. Doug Carr, President
Kawaihae Boating Association
P.O. Box 44652
Kamuela, HI 96743

Dear Mr. Carr,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting, and other miscellaneous fencing, signage, grading and drainage as required. A general location map, a schematic site map, and TMK map of the proposed project area are attached for your information and review.

Two environmental documents titled *Environmental Impact Statement for Development of Kawaihae Small Boat Harbor* and *Final Environmental Assessment for Kawaihae Harbor for Light-Draft Vessels* were previously written for the planning and construction of the Kawaihae SBH. The EA obtained a Finding of No Significant Impact (FONSI) determination; therefore, a FONSI is also anticipated for this EA.

We are seeking your consultation on this project to identify any potential effects this project may have on the project area and the surrounding community, or any concerns your organization may have with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

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Martin.Nakasone@m-e.aecom.com

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Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

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Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

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841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
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July 11, 2007

Director
Kohala Trollers Club
P.O. Box 1597
Kamuela, HI 96743

Dear Director,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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We are seeking your consultation on this project to identify any potential effects this project may have on the project area and the surrounding community, or any concerns your organization may have with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

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Thank very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

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Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

July 11, 2007

Mr. Jeff Mikulina, Director
The Nature Conservancy
923 Nuuanu Ave.
Honolulu, Hi 96817

Dear Mr. Mikulina,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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We are seeking your consultation on this project to identify any potential effects this project may have on the project area and the surrounding community, or any concerns your organization may have with the proposed improvements. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

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Martin.Nakasone@m-e.aecom.com

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Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

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Ms. Valerie Suzuki, DLNR Engineering Division
Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
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July 11, 2007

Kathy Whitmire, President
The Outdoor Circle
1314 South King St., Suite 306
Honolulu, Hi 96814

Dear Ms. Whitmire,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Thank very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map

METCALF & EDDY | AECOM

(2) Schematic Site Map
(3) TMK Map

cc: Project File
Ms. Valerie Suzuki, DLNR Engineering Division
Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

July 11, 2007

Director
Pua Ka Ilima O Kawaihae
P.O. Box 1725
Kamuela, HI 96743-1725

Dear Director,

Subject: Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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Engineering Manager

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METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

July 11, 2007

Director
University of Hawaii at Manoa
Dept. of Oceanography
Marines Sciences Bldg.
100 Pope Road, Room 229
Honolulu, HI 96822

Dear Director,

Subject: Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

METCALF & EDDY | AECOM

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cc: Project File
Ms. Valerie Suzuki, DLNR Engineering Division
Mr. Eric Yuasa, DLNR Division of Boating and Ocean Recreation
Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

We are still writing the book

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

July 11, 2007

Dr. John T. Harrison, PhD, Environmental Coordinator
University of Hawaii at Manoa
Environmental Center
2500 Dole St., Krauss Annex 19
Honolulu, Hi 96822

Dear Dr. Harrison,

Subject: Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

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Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

We are still writing the book

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

July 11, 2007

Director
University of Hawaii at Manoa
Water Resources Research Center
Holmes Hall
2540 Dole Street, Room 283
Honolulu, HI 96822

Dear Director,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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Ms. Sharon Nekoba, DLNR Division of Boating and Ocean Recreation

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

July 11, 2007

Director
Waimea-Kawaihae Community Association
P.O. Box 685
Kamuela, HI 96743

Dear Director,

Subject: **Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements**
TMK: (3) 6-1-003: Por. 026

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for phase one of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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Engineering Manager

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Ms. Valerie Suzuki, DLNR Engineering Division
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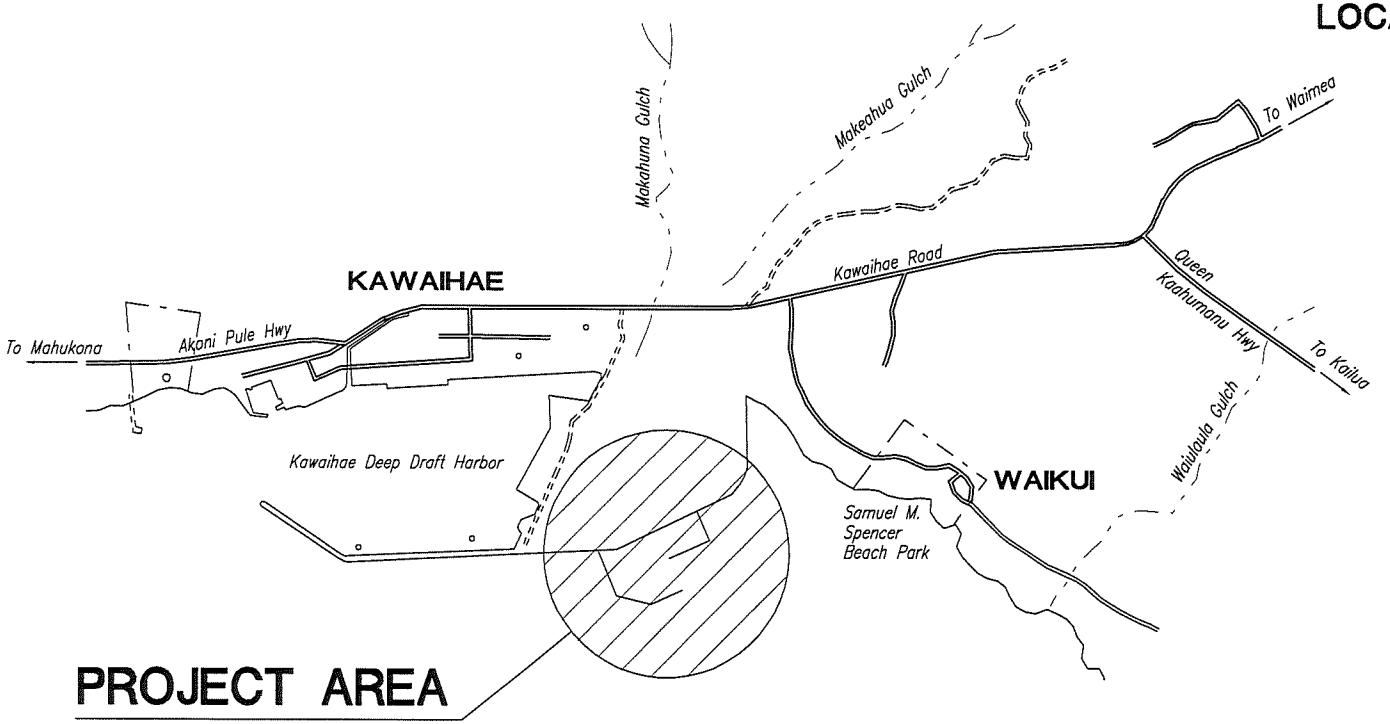
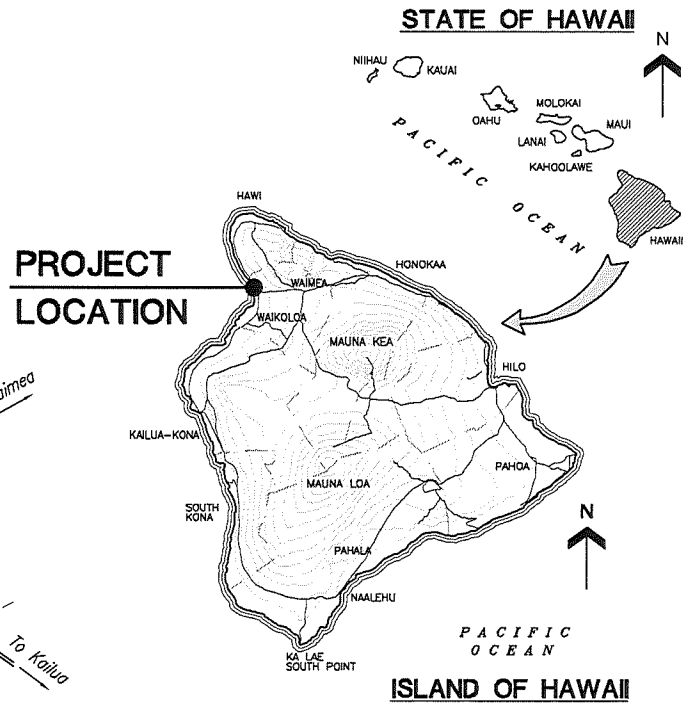


LOCATION MAP

NOT TO SCALE



VICINITY MAP

NOT TO SCALE

PATH/FILENAME: P:\Projects\Honolulu\60024966 Kawaihae SBH\500 Deliverables\EA\Figure 1.dwg

LAST UPDATE: June 01, 2007 @ 03:54:08 pm

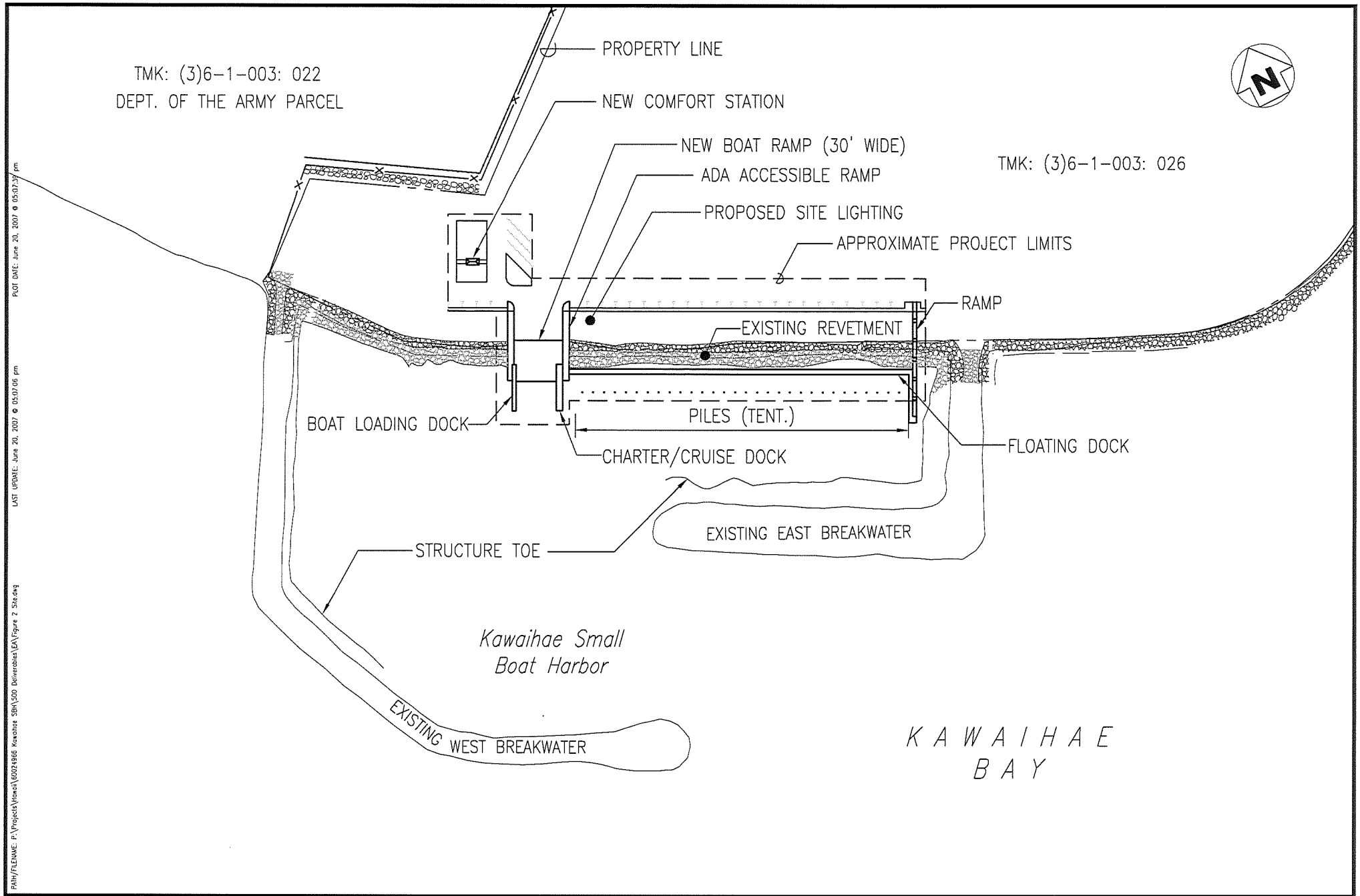
PLOT DATE: June 19, 2007 @ 04:20:25 pm

M&E Pacific, Inc.

METCALF & EDDY | AECOM

DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

Figure 1
Location Map
Environmental Assessment for the
Kawaihae Small Boat Harbor (South) Improvements
June 2007



PATH/FILENAME: P:\Projects\Hawaii\60024966 Kawaihae SBH\500 Deliverables\EA\Figure 2 Site.dwg LAST UPDATE: June 20, 2007 @ 05:07:06 pm PLOT DATE: June 20, 2007 @ 05:07:39 pm

M&E Pacific, Inc.

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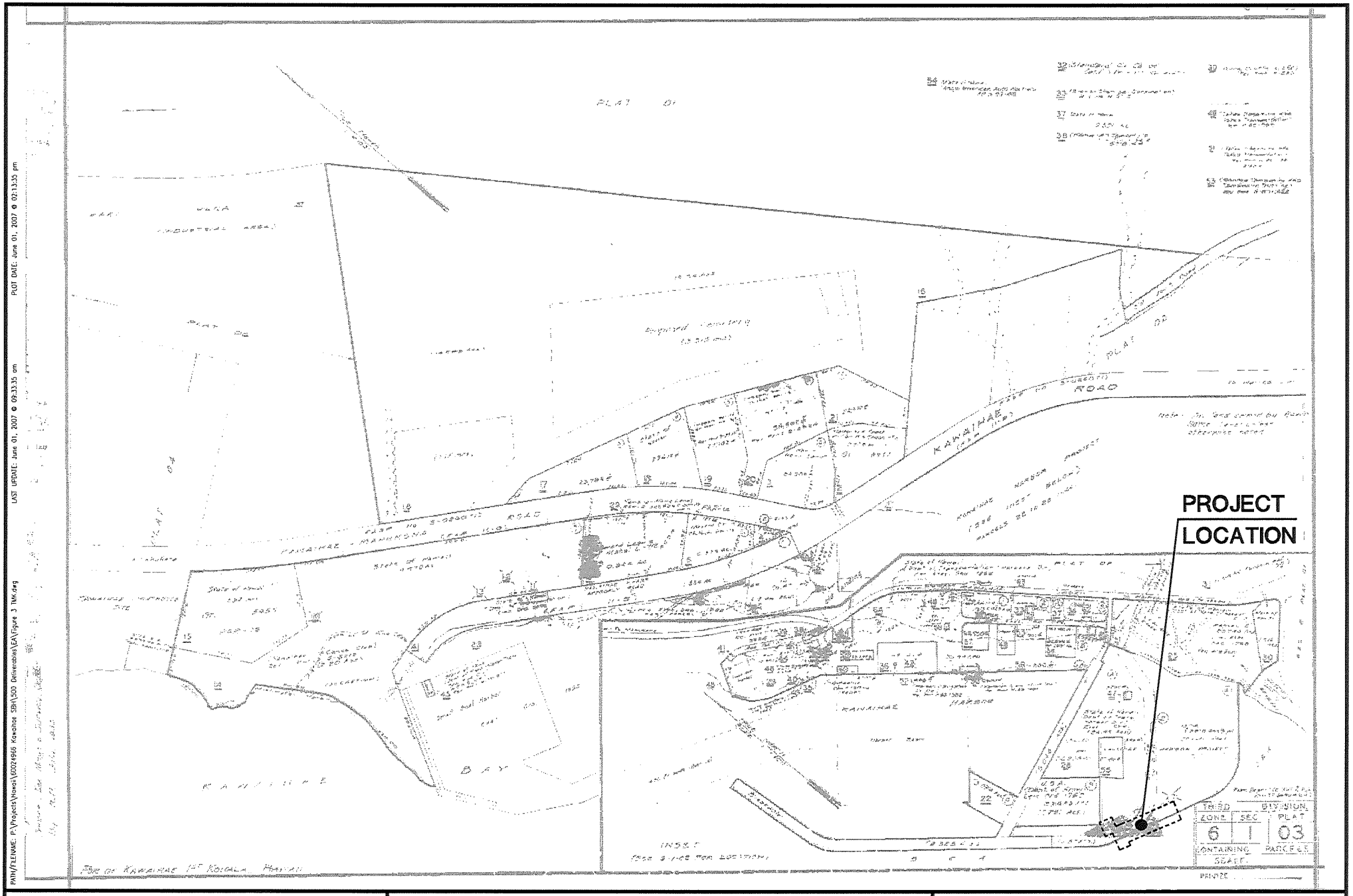
DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

SCHEMATIC SITE PLAN

SCALE: NOT TO SCALE

Figure 2
SCHEMATIC SITE PLAN
Environmental Assessment for the
Kawaihae Small Boat Harbor (South) Improvements
June 2007



M&E Pacific, Inc.

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DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

TMK MAP

NOT TO SCALE

Figure 3
TMK Map
Environmental Assessment for the
Kawaihae Small Boat Harbor (South) Improvements
June 2007

PRE-ASSESSMENT COMMENTS RECEIVED

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
FORT SHAFTER, HAWAII 96858-5440

August 13, 2007

RECEIVED
AUG 17 2007
M & E PACIFIC, INC.

REPLY TO
ATTENTION OF:

Civil Works Technical Branch
Engineering & Construction Division

Mr. Martin Nakasone
M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

Dear Mr. Nakasone:

Thank you for your letter, dated July 11, 2007, and the opportunity to comment on the State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation's (DBOR) planned improvements at Kawaihae Small Boat Harbor (SBH) (South).

The U.S. Army Corps of Engineers, Honolulu District has the responsibility to maintain the two Federal breakwater structures at Kawaihae SBH, as well as to maintain the authorized depths within the Federal project limits within the harbor including the entrance channel and turning basin areas. We require a permanent maintenance easement right-of way and access to the root of both breakwater structures in the event either or both structures require maintenance in the future. We require that the easement remain clear of any permanent obstructions to allow access from Queen Ka'ahumanu Highway to the breakwaters.

From an environmental perspective, if the construction activities will disturb one or more acres of ground surface, the proponent should seek coverage under the State's General Permit for Stormwater Discharges Associated with Construction Activities. According to the current State Water Quality Standards Maps, Kawaihae is located within Class A Marine waters.

Kawaihae Harbor is listed as an impaired water body for turbidity according to the State's 2004 303d Report. We would suggest that you consult with the State Clean Water Branch to get clarification on how this would impact the NPDES permit.

The current General Permit for Stormwater Associated with Construction Activities expires on November 6, 2007. An updated NOI-C form for new General Permit currently is available if construction will continue past the expiration date of November 2007.

We, also, suggest that you contact the County of Hawaii Planning Office to determine if a Special Management Area Permit is needed.

I am forwarding a copy of this letter to Mr. Eric Yuasa, State of Hawaii, Department of Land and Natural Resources, Division of Boating and Ocean Recreation, 333 Queen Street, Suite 300, Honolulu, Hawaii 96813. Should you have any questions regarding this matter, please contact Mr. Patrick Tom of our Civil Works Technical Branch at (808) 438-8874.

Sincerely,

James L. Bersson, P.E.
Deputy District Engineer for
Programs and Project Management

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF:

AUG 23 2007

RECEIVED
AUG 27 2007
M & E PACIFIC, INC.

Regulatory Branch

DA File No. POH-2007-00279

Mr. Martin Nakasone
M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, HI 96813

Dear Mr. Nakasone:

This responds to your request for written comments for a draft Environmental Assessment (dEA) which will address activities and impacts of the proposed Kawaihae Small Boat Harbor (South) Improvements Project, South Kohala, Hawaii Island located at TMK (3) 6-1-03: por. 26). A separate reply is being prepared by the Environmental Technical Branch, U.S. Army Engineer District Honolulu.

The dEA should indicate those activities which will be over, in and under waters of the United States, specifically, the Pacific Ocean. Further, the dEA should describe those elements of proposed project activities which have the potential to result in the discharge of dredged or fill material into waters of the United States. An additional item the dEA should address is whether aids to navigation are part of, or excluded from the proposed project. The placing of fixed and floating aids to navigation in a navigable water of the United States, as well as floating docks and boat ramps are within the purview of Section 10 of the Rivers and Harbors Act of 1899. In particular, these aids are of particular interest to the U.S. Coast Guard because of its control over the marking, lighting and standardization of such navigation aids. The Findings of the dEA should state in appropriate sections that there is, or is no potential for waters of the U.S. to be impacted by construction of project structures and associated ground disturbing activities within the proposed improvement area.

Upon our receipt of the Final EA, it may be determined whether a Department of Army (DA) permit for Section 10 activities of the Rivers and Harbors Act and Section 404 activities of the Clean Water Act may, or may not be, required for the proposed Kawaihae Small Boat Harbor (South) Improvements Project. Thank you for your consideration of potential impacts to the aquatic environment of the Kawaihae watershed. Please contact Mr. Farley Watanabe of my staff at 438-7701, or facsimile 438-4060, or Farley.K.Watanabe@poh01.usace.army.mil if you have any questions or need additional information. Please refer to File Number POH-2007-279 in any future correspondence with this office.

Sincerely,

for George P. Young, P.E.
Chief, Regulatory Branch

Copy Furnished:
Ms. Valerie Suzuki, Engineering Division, DLNR
Mr. Eric Yuasa, DOBOR, DLNR
Mr. Sam Lemmo, OCCL, DLNR

U.S. Department of Homeland Security
United States Coast Guard

Commander
Fourteenth Coast Guard District

300 Ala Moana Blvd Ste 9108
Honolulu, HI 96850-4982
Staff Symbol: (dm)
Phone: (808) 541-2268
Fax: (808) 541-2152
Email: charito.p.cervantes@uscg.mil

11011
9 Aug 2007

RECEIVED
AUG 15 2007
M & E PACIFIC, INC.

M&E Pacific, Inc
Attn: Mr. Martin Nakasone
841 Bishop Street, Suite 1900
Honolulu, HI 96813

Dear Mr. Nakasone:

Thank you for allowing the Coast Guard (CG) the opportunity to review the State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation's (DBOR) proposal to improve a portion of the Kawaihae Small Boat Harbor (South).

The proposed project has been reviewed by my staff and the Coast Guard has no additional comments at this time. Please feel free to contact Ms. Cherrie Cervantes at (808) 541-2268 on matters pertinent to this project.

Sincerely,

Patrick M. McMillin
Chief, Resource and Performance Management
Commander, U.S. Coast Guard

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122, Box 50088
Honolulu, Hawaii 96850

In Reply Refer To:
2007-TA-0227

AUG 13 2007
RECEIVED
AUG 14 2007
M & E PACIFIC, INC.

Mr. Martin Nakasone
Engineering Manager
Metcalf and Eddy AECOM
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

Subject: Technical Assistance Request for Proposed Kawaihae Small Boat Harbor Improvements, Island of Hawaii

Dear Mr. Nakasone:

Thank you for your letter dated July 11, 2007, requesting that the U.S. Fish and Wildlife Service (Service) review your determination that the Kawaihae small boat harbor improvement project [TMK (3) 6-1-003:026], on the island of Hawaii, will have no effect to Federally-listed species. The State of Hawaii, Department of Land and natural Resources, Division of Boating and Ocean Recreation is proposing to install light-draft boating facilities, including a fixed concrete boat ramp, a floating dock, a comfort station, potable water and wastewater systems, site lighting, an electrical system, fencing, and signs. You have determined, based on a December 1994 Environmental Assessment and your subsequent research, that the proposed project will have no effect to federally endangered Hawaiian hoary bat (*Lasirus cinereus semotus*), Hawaiian hawk (*Buteo solitarius*), threatened green sea turtle (*Chelonia mydas*) and endangered humpback whale (*Megaptera novaeangliae*). Your letter indicates that the Hawaiian hoary bat and Hawaiian hawk infrequently forage in the project area but that sea turtles are not found on land in the project area. Please note that the National Marine Fisheries Services, has regulatory authority under the Endangered Species Act of 1973, as amended [16 U.S.C. 1531-1544] for the humpback whale and for sea turtles that are in the ocean and not hauled out or nesting on the beach.

Documentation in our files indicates that the federally threatened Newell's shearwater (*Puffinus auricularis newelli*) and the federally endangered Hawaiian petrel (*Pterodroma phaeopygia sandwichensis*) are known to occur in the vicinity of the action area. Several species which are not listed under the Endangered Species Act but which are protected under the Migratory Bird

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Treaty Act [16 U.S.C. 703-712] may also transit the area. Bright lights can disorient night flying seabirds, causing them to land on the ground where they are vulnerable to vehicle collisions and non-native predators. To minimize project impacts to these birds, we recommend that all outdoor lighting associated with the project be shielded downward so that the bulb is not visible, at bulb height, from the side.

We disagree with your determination that the proposed project will not affect listed species in the vicinity of the action area. After reviewing information you provided and pertinent information in our files, we are concerned that the proposed action may affect listed seabirds protected under the Endangered Species Act and or the Migratory Bird Treaty Act. If lighting associated with the improvements to the small boat harbor is down-shielded and lights use the shortest poles and lowest wattage possible and do not extend above the height of existing vegetation, this will minimize the potential for disorienting listed seabirds traveling to or from their montane nesting areas and minimize collisions of listed seabirds with light poles.

We appreciate your efforts to conserve endangered species. If you have questions, please contact Aaron Nadig, Fish and Wildlife Biologist, Consultation and Technical Assistance Program (phone: 808-792-9466; fax: 808-792-9581).

Sincerely,

for Patrick Leonard
Field Supervisor

Hikiji, Jamie

From: Douglas Tom [DTom@dbedt.hawaii.gov]
Sent: Monday, July 16, 2007 3:50 PM
To: Hikiji, Jamie; Nakasone, Martin
Cc: Debra Mendes
Subject: Kawaihae Small Boat Harbor Improvements

Jamie, Martin,

This is to inform you that in general we no longer review and comment on environmental assessments or impact statements. Under the CZM concept, the functional agencies are to have that responsibility. However, we randomly review submissions. In addition to compliance with Chapter 205A objectives and policies, we examine documents to determine how well they relate the projects to the Ocean Resources Management Plan. A copy of this plan can be downloaded from our CZM website (www.hawaii.gov/dbedt/czm/)

Doug Tom
Program Manager, CZM

Hikiji, Jamie

From: Ken.H.Toguchi@hawaii.gov
Sent: Monday, July 16, 2007 1:09 PM
To: Nakasone, Martin; Hikiji, Jamie
Cc: DHHL_PO@hawaii.gov
Subject: Request for Review: Kawaihae Small Boat Harbor

Thank you for the submittal of Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements.

The packet has been forwarded to the Planning Office for review and comment.

Questions or concerns on the request should be directed to Ms. Ann Yonamine, Planning Office Secretary, at 586-3836.

Kenneth H. Toguchi
Information Specialist
State of Hawaii/Dept. of Hawaiian Home Lands
ph. 586-3842
fax 586-3843
ken.h.toguchi@hawaii.gov

AUG 2 0 2007

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ALLAN A. SMITH
INTERIM DEPUTY DIRECTOR - LAND

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DEPUTY DIRECTOR - WATER

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BUREAU OF CONVEYANCES
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CONSERVATION AND RESOURCES ENFORCEMENT
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KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

Office of Conservation and Coastal Lands
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

REF:OCCL:DH

Correspondence: HA-08-07

AUG 1 6 2007

Martin Nakasone, Engineering Manager
M & E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

Dear Mr. Nakasone,

SUBJECT: Request for Determination Whether a Conservation District Use Application is required for Proposed Kawaihae Small Boat Harbor (South) Improvements, Kawaihae, Island of Hawaii, Subject Parcel TMK: (3) 6-1-003:026

The Department of Land and Natural Resources,' (DLNR) Office of Conservation and Coastal Lands (OCCL) is in receipt of your letter dated, July 11, 2007, regarding whether a Conservation District Use Application (CDUA) is required for proposed Kawaihae Small Boat Harbor (South) Improvements, Kawaihae, Island of Hawaii, Subject Parcel TMK: (3) 6-1-003:026.

The OCCL notes the proposed project will design and construct the Master Plan's 1st Phase for the installation of the light draft boating facilities at the existing harbor. Improvements include: construction of a 30 foot wide fixed concrete ADA accessible boat ramp, ADA accessible floating dock and gangway, comfort station, utilities (waterline, electrical, lighting), fencing, signage, grading and drainage improvements.

The OCCL notes work will occur in the State Land Use (SLU) Conservation District, Resource subzone. The site is currently managed by the DLNR, Division of Boating and Ocean Recreation and is considered a non-conforming use. The OCCL notes the proposed project will construct a 30 foot wide fixed concrete ADA accessible boat ramp, and ADA accessible floating dock and gangway. The OCCL notes the proposed elements of the project proposed in the Conservation District are considered routine repair and maintenance for a use of which no permit is required. Additionally, the project is minor in scope and within the scope of Kawaihae Small Boat Harbor operations and maintenance. Should you have any questions or comments please contact Dawn Hegger of the Office of Conservation and Coastal Lands at 587-0380.

Sincerely,

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

c: Chairperson/HDLO
Hawaii County Planning Department
DOBOR

LINDA LINGLE
GOVERNOR

CHIYOME LEINAALA FUKINO, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 916
HILO, HAWAII 96721-0916

RECEIVED
AUG 10 2007
M & E PACIFIC, INC.

August 8, 2007

Mr. Martin Nakasone
Engineering Manager
M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

Dear Mr. Nakasone:

Subject: Request for Review of Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: (3)6-1-003:Por. 026

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of the subject document on July 17, 2007. The CWB has reviewed the limited information contained in the subject document and offers the following comments:

1. The Army Corps of Engineers should be contacted at (808) 438-9258 for this project. Pursuant to Federal Water Pollution Control Act (commonly known as the "Clean Water Act" (CWA)), Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters…". The term "discharge" is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40, Code of Federal Regulations, Section 122.2, and Hawaii Administrative Rules (HAR), Chapter 11-54.

2. In accordance with HAR, Sections 11-55-04 and 11-55-34.05, the Director of Health may require the submittal of an individual permit application or a Notice of Intent (NOI) for general permit coverage authorized under the National Pollutant Discharge Elimination System (NPDES).

   a. An application for an NPDES individual permit is to be submitted at least 180 days before the commencement of the respective activities. The NPDES application forms may also be picked up at our office or downloaded from our website at http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html.

b. An NOI to be covered by an NPDES general permit is to be submitted at least 30 days before the commencement of the respective activity. A separate NOI is needed for coverage under each NPDES general permit. 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.

i. 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). [HAR, Chapter 11-55, Appendix B]

ii. Construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. An NPDES permit is required before the commencement of the construction activities. [HAR, Chapter 11-55, Appendix C]

iii. Discharges of treated effluent from leaking underground storage tank remedial activities. [HAR, Chapter 11-55, Appendix D]

iv. Discharges of once through cooling water less than one (1) million gallons per day. [HAR, Chapter 11-55, Appendix E]

v. Discharges of hydrotesting water. [HAR, Chapter 11-55, Appendix F]

vi. Discharges of construction dewatering effluent. [HAR, Chapter 11-55, Appendix G]

vii. Discharges of treated effluent from petroleum bulk stations and terminals. [HAR, Chapter 11-55, Appendix H]

viii. Discharges of treated effluent from well drilling activities. [HAR, Chapter 11-55, Appendix I]

ix. Discharges of treated effluent from recycled water distribution systems. [HAR, Chapter 11-55, Appendix J]

x. Discharges of storm water from a small municipal separate storm sewer system. [HAR, Chapter 11-55, Appendix K]

xi. Discharges of circulation water from decorative ponds or tanks. [HAR, Chapter 11-55, Appendix L]

2. In accordance with HAR, Section 11-55-38, the applicant for an NPDES permit is required to either submit a copy of the new NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the DOH that the project, activity, or site covered by the NOI or application has been or is being reviewed by SHPD. If applicable, please submit a copy of the request for review by SHPD or SHPD's determination letter for the project.

3. Any discharges related to project construction or operation activities, with or without a Section 401 WQC or NPDES permit coverage, shall comply with the applicable State Water Quality Standards as specified in HAR, Chapter 11-54.

Hawaii Revised Statutes, Subsection 342D-50(a) requires that "[n]o person, including any public body, shall discharge any water pollutants into state waters, or cause or allow any water pollutant to enter state waters except in compliance with this chapter, rules adopted pursuant to this chapter, or a permit or variance issued by the director."

If you have any questions, please contact Mr. Alec Wong, Supervisor of the Engineering Section, CWB, at (808) 586-4309.

Wastewater Branch found no wastewater/environmental health concerns with regulatory implications in the submittal.

The use of individual wastewater systems is allowed. The type and number of individual wastewater systems to be used on each lot will be determined by the wastewater rules in effect at the time of building permit application.

Sincerely,

Newt Inouye

NEWTON INOUYE
Acting District Environmental Health Program Chief

LINDA LINGLE
GOVERNOR

BARRY FUKUNAGA
DIRECTOR

Deputy Directors
MICHAEL D. FORMBY
FRANCIS PAUL KEENO
BRENNON T. MORIOKA
BRIAN H. SEKIGUCHI

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

IN REPLY REFER TO:

STP 8.2575

August 14, 2007

RECEIVED
AUG 17 2007
M & E PACIFIC, INC.

Mr. Martin Nakasone
Engineering Manager
M & E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

Dear Mr. Nakasone:

Subject: Request for Review, Environmental Assessment Early Consultation
Kawaihae Small Boat Harbor (South) Improvements
TMK: 6-1-003: por. 026, Island of Hawaii

We have the following comments on the proposed project for the South facility of the subject small boat harbor:

1. Project plans for the South Small Boat facility will need advance review and coordination with both our Harbors Division and Highways Division.

2. Boat traffic and circulation will need to be addressed in regards to necessary safety factors associated with the mix of commercial vessels and small boats using the Kawaihae Harbor complex. Boating activities and Harbor operations on the harbor lands should also be discussed.

3. Ingress and egress at and to/from the fronting State highway to the South boat facility will need to be addressed for traffic purposes.

4. Your firm and the Boating & Ocean Recreation staff of the Department of Land & Natural Resources (DBOR – DLNR), should consult with the Hawaii District Offices and Planning Branches of our respective Harbors and Highways Divisions, and when the environmental assessment report is completed, provide copies to both of the district and planning staff for their review and comments.

   For administrative departmental coordination purposes, a copy of the environmental report should also be transmitted to our Statewide Transportation Planning Office.

We appreciate your courtesy of early consultation and for the opportunity to provide our comments.

Very truly yours,

BARRY FUKUNAGA
Director of Transportation

Hikiji, Jamie

From: Roy Kam [rkam@hawaii.edu]
Sent: Tuesday, June 05, 2007 11:46 AM
To: Hikiji, Jamie
Subject: RE: Kawaihae Small Boat Harbor (South) Improvements - Request for Review
Attachments: m&epacifickawaihae.jpg

Jamie,

Attached is a jpeg map depicting the data from our database. It appears that no rare species or natural communities have been recorded in your project area. Although, you may want to note that a High Salinity Anchialine Pool has been recorded nearby (identified as a green dot). Most likely the location is well beyond your project site, but Achianline Pools are sensitive sites and are habitat for the Opaeula (Hawaiian red shrimp) a species of concern (tagged by USFWS). But according to our database, more research is needed to determine if there are any shrimps in that pool and the extant.

Roy Kam
Database Manager
Hawaii Biodiversity & Mapping Program
(Hawaii Natural Heritage Program)
University of Hawaii at Manoa
Ph: 808-956-8094
Fax: 808-956-8493

Mailing Address:
University of Hawaii at Manoa
Center for Conservation Research and Training
3050 Maile Way, Gilmore Hall #406
Honolulu, Hawaii 96822

Office Address:
University of Hawaii at Manoa
Biomedical and Sciences Building
1960 East West Road, Court B Room 203
Honolulu, Hawaii 96822

Notice
The Hawaii Biodiversity and Mapping Program (HBMP), Natural Diversity Database is dependent on the research and observations of many scientists and individuals. In most cases this information is not the result of comprehensive site-specific field surveys, and is not confirmed by the HBMP staff. Many areas in Hawaii have never been thoroughly surveyed, and new plants and animals are still being discovered. Database information should never be regarded as final statements or substituted for on-site surveys required for environmental assessments. Data provided by the Heritage Program do not represent a position taken by The Center for Conservation Research and Training or The Nature Conservancy of Hawaii. HBMP information is only for the intended use of the individual or organization who requested it. It may not be distributed in any way without the consent of the Hawaii Biodiversity and Mapping Program.

Please cite HBMP and primary sources in all documentation and reports.
Hawaii Biodiversity and Mapping Program, Center for Conservation Research and Training, University of Hawaii at Manoa
3050 Maile Way, Gilmore Hall Room 406, Honolulu, Hawaii 96822

From: Hikiji, Jamie [mailto:Jamie.Hikiji@m-e.aecom.com]
Sent: Tuesday, June 05, 2007 11:22 AM

To: Roy Kam
Subject: Kawaihae Small Boat Harbor (South) Improvements - Request for Review

Mr. Kam,

The State of Hawaii Department of Land and Natural Resources is proposing to improve a portion of the Kawaihae Small Boat Harbor (South) in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to update the Environmental Assessment prepared for work previously done at the harbor.

The original EA was prepared in December 1994, for the construction of the existing east and west breakwaters shown on the schematic plan. Research done for that EA indicated that "there are no Federally listed endangered, threatened, candidate or proposed species of terrestrial plant or animals or their critical habitat within the project area." While the Hawaiian Hawk and Hawaiian Bat occasionally forage in the general harbor area, neither species nest, breed or roost in the area. Two rare marine species are common in the area, however; the humpback whale is seen in the area during "whale season" and green sea turtles are often near the small boat harbor breakwater. Although this is a feeding area for the turtles it "is not suitable for nesting or basking as there is no convenient access to the land and the land is unsuitable for nest building."

We are seeking your consultation on this project to identify any other threatened or endangered species within or in the vicinity of the project site. The affected area is located at TMK (3)6-1-003: Por. 026. A general location map, TMK map and schematic site plan are provided in the attached file for your information and review.

This project will include the design and construction of a boat ramp with ADA access, a floating dock with ADA accessible gangway, grading and drainage for an unpaved area of boat and trailer parking, a comfort station with individual wastewater system, potable overland waterline and electrical service to the comfort station and dock area, and other miscellaneous fencing, signage, grading and drainage as required.

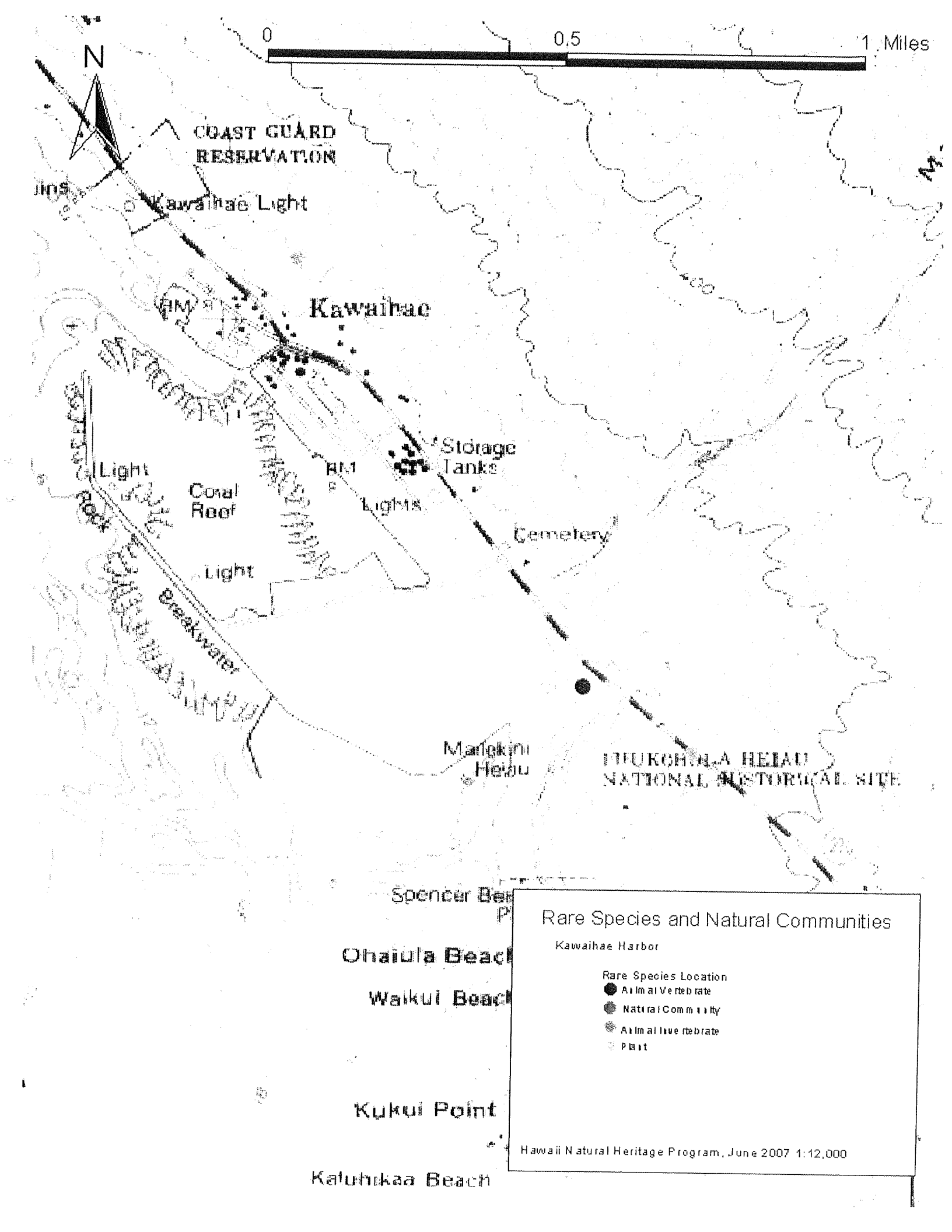
We would like to request a listing of those endangered or threatened species that may be impacted by this project.

If there are any questions, please contact me at (808) 521-3051, fax (808) 524-0246 or e-mail Jamie.Hikiji@m-e.aecom.com.

Thank you,

Jamie Hikiji
M&E Pacific, Inc.
METCALF&EDDY | AECOM
Davies Pacific Center
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

808.521.3051 (Voice)
808.524.0246 (Fax)
Jamie.Hikiji@m-e.aecom.com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Heiau
HIUKOHOLA HEIAU
NATIONAL HISTORICAL SITE
Spencer Beach
Ohaiula Beach
Waikui Beach
Kukui Point
Kaluhikaa Beach
Rare Species and Natural Communities
Kawaihae Harbor
Rare Species Location
Animal Vertebrate
Natural Community
Animal Invertebrate
Plant
Hawaii Natural Heritage Program, June 2007 1:12,000

Harry Kim
Mayor

Christopher J. Yuen
Director

Brad Kurokawa, ASLA
LEED® AP
Deputy Director

County of Hawaii
PLANNING DEPARTMENT
101 Pauahi Street, Suite 3 • Hilo, Hawaii 96720-4224
(808) 961-8288 • FAX (808) 961-8742

RECEIVED
AUG 22 2007
M & E PACIFIC, INC.

August 13, 2007

Mr. Martin Nakasone
Engineering Manager
M & E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu HI 96813

Dear Mr. Nakasone:

Pre-Consultation on Draft Environmental Assessment
Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: 6-1-3:Portion of 26, Kawaihae, Kohala, Hawaii

This is in response to the letter received on July 16, 2007.

The State of Hawaii, Department of Land and Natural Resources, Division of Boating and Ocean Recreation proposes to improve a portion of the Kawaihae Small Boat Harbor (South). The proposed project will design and construct the first phase of the Master Plan for the installation of light-draft boating facilities at the existing Kawaihae Small Boat Harbor. The planned improvements include the construction of a 30-feet wide, fixed concrete boat ramp with ADA access, a floating dock with ADA accessible gangway, a comfort station with individual wastewater system, potable waterline and electrical service to the comfort station, site lighting and other miscellaneous fencing, signage, grading and drainage as required.

We have the following to offer for the proposed project:

1. According to the General Plan's Land Use Pattern Allocation Guide Map, the subject parcel is designated Open, Industrial and Medium Density Urban. The project area appears to be Open, which is characterized as *"Parks and other recreational areas, historic sites, and open shoreline areas"*.

2. The State Land Use designation is Urban.

3. County zoning is General Industrial (MG-1a), Open (O) and Multiple Family Residential (RM-1.5).
   a. Yacht harbors and boating facilities are permitted uses in the General Industrial district.
   b. Planning Commission approval of a Use Permit is required for a yacht harbor and boating facilities in the Open and the Multiple-Family Residential districts.

4. The subject parcel is in the County's Special Management Area (SMA).
   a. The proposed improvements mauka of the shoreline will require either a Special Management Area Minor Permit or a Special Management Area (Major) Use Permit.
   b. Depending on the type of improvements or activities within the forty-foot shoreline setback area, a Shoreline Setback Variance may be required.
   c. All activities makai of the shoreline are outside the jurisdiction of the County.

5. Plan approval is required prior to the construction of any new structure.

Should you have questions, please feel free to contact Esther Imamura of our Department at 961-8288, extension 257.

Sincerely,

CHRISTOPHER J. YUEN
Planning Director

ETI:cd
P:\wpwin60\ETI\EAdraftPre-consul\Nakasone Kawaihae small boat harbor 07.rtf

xc: Ms. Esther Imamura, Long Range Planning
Planning Department, Kona

Harry Kim
Mayor

Bobby Jean Leithead-Todd
Director

Nelson Ho
Deputy Director

County of Hawaii
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
25 Aupuni Street • Hilo, Hawai`i 96720-4252
(808) 961-8083 • Fax (808) 961-8086
email: cohdem@co.hawaii.hi.us

RECEIVED
JUL 30 2007
M & E PACIFIC, INC.

July 24, 2007

Mr. Martin Nakasone
Engineering Manager
Metcalf & Eddy
841 Bishop Street, Suite 1900
Honolulu, HI 96813

Re: Proposed Kawaihae Small Boat Harbor (South) Improvements
TMK: 6-1-003: Por. 026
Environmental Assessment (EA)

Dear Mr. Nakasone,

Thank you for allowing us the opportunity to review the subject EA. We have no comments to offer at this time.

Bobby Jean Leithead-Todd
DIRECTOR

9817A

Harry Kim
Mayor

Dixie Kaetsu
Managing Director

Barbara Kossow
Deputy Managing Director

County of Hawai'i
891 Ululani Street • Hilo, Hawai'i 96720 • (808) 961-8211 • Fax (808) 961-6553
KONA: 75-5706 Kuakini Highway, Suite 103 • Kailua-Kona, Hawai'i 96740
(808) 329-5226 • Fax (808) 326-5663

July 23, 2007

RECEIVED
JUL 25 2007
M & E PACIFIC, INC.

Martin Nakasone
Engineering Manager
M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawai'i 96813

Re: Comments on Proposed Kawaihae Small Boat Harbor Improvements

Dear Mr. Nakasone:

Thank you for your letter and the opportunity provide input on this project. The following are my comments:

1. **Hazards**: As I am sure you are well aware, the Kawaihae Harbor area has experienced disruptions and damages due to the natural hazards of surf, earthquake and wind. I am sure that you are aware of this, and the plans will take these hazards into account in the specific design to mitigate as best as possible these issues. It is emphasized here that special attention should be given to the impact of surf hazards caused by tropical storms and hurricanes. The floating dock concept is obviously a well-tested once, but historical data will show that the present Kawaihae Harbor has suffered many occurrences of light to severe damage caused by surges and surf.

2. **Wind**: A special emphasis is made for the hazard of wind, as generally for the area this is not particularly emphasized. Whether it be in the design, construction phase, or upon completion, there needs to be awareness that winds have created danger and havoc to the area. The area for the proposed project is particularly susceptible to very strong winds, at times near hurricane levels. It is emphasized that these damaging and dangerous winds occur numerous times during the course of a relatively short period, and that the winds are caused by down drafts and not by approaching storms. It is requested that design and construction requirements identify these winds so as to mitigate the impact.

3. **Fishermen**: The area of the project is popular for local shore fishermen, mainly due to its relative isolation from the rest of the harbor. It is hoped the design will accommodate fishermen.

4. **Recreation**: The small boat recreation harbor facilities for this island also seem to serve as a recreational place for especially children. This is a serious problem for this island's small recreational boat harbors such as the present Kawaihae ramp, as well as Pohoiki and Kailua. It is asked that this is taken into account in the design.

5. **Landscaping**: It is noticed that the proposed project does not particularly identify landscaping, but it is hoped that landscaping will also be part of the contract. If ones visits Kawaihae Harbor today, you will note that the planting of coconut trees along the roadway was started by one individual many years ago. Landscaping of coconut trees or other foliage will not only add to the use and beauty of the area, but also mitigate problems of wind or runoff.

I look forward to this project, as I am sure many of our island residents do. Thank you.

Aloha,

Harry Kim
MAYOR

cc: Troy Kindred, Civil Defense Administrator

PUA KA`ILIMA O KAWAIHAE
CULTURAL SURF PARK, INC.

P.O. Box 1725 Kamuela, Hawaii 96743
PH/FAX (808) 885-3534

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Rex Thompson

July 2007

RECEIVED
JUL 20 2007
M & E PACIFIC, INC.

M & E Pacific, Inc.
841 Bishop St., Ste. 1900
Honolulu, HI 96813

Attn: Martin Nakasone

Re: Comments on Proposal for Kawaihae Small Boat Harbor (South) Improvements; TMK (3) 6-1-003: Por.026

Dear Mr. Nakasone,

Thank you for referring this project to us. We are certainly in favor of the improvements shown on your schematic plan. A comfort station is sorely needed and we urge you to construct it in Phase I, if possible.

As we understand past master plans for this area, long term access to our surf park / break water area will be generally aligned along the route of the current unpaved road running in a loop from Kawaihae Road, past Pelekane, and past the existing small boat harbor basin, to the surf park area.

Please preserve this through access in your plans (some realignment may be necessary or desirable). Some day access from the LST ramp side will likely become unavailable.

Thank you again for the opportunity to comment. We look forward to being cooperative good neighbors with an improved and more useful small boat harbor.

Very truly yours,

Bob Simms
Director

APPENDIX A-2

DRAFT EA CORRESPONDENCE AND COMMENTS RECEIVED

- **Draft EA Correspondence & Comments Received**
- **Annotated Responses to Comments Received (Pre-Consultation & Draft EA)**

DRAFT EA CORRESPONDENCE & COMMENTS RECEIVED

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

October 11, 2007

Mr. Don Klima, OFAP Director
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue, NW, Suite 809
Washington, DC 20004

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Mr. Klima,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your office in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the Advisory Council did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the historic sites and archeological resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

October 11, 2007

Mr. Bill Robinson, Manager
Pacific Islands Regional Office
NOAA/National Marine Fisheries Service
1601 Kapiolani Blvd., Suite 1110
Honolulu, HI 96814

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment

Dear Mr. Robinson,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your office in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the NOAA/National Marine Fisheries Service did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the historic sites and archeological resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

We will assume that your office has no comments on the proposed project if we do not receive correspondence within 30 days from the date of this letter.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

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October 11, 2007

Mr. James L. Bersson, P.E.
Deputy District Engineer for Programs and Project Management
Civil Works Technical Branch
Engineering & Construction Division
Building 230
Fort Shafter, Hawai'i 96858-5400

Subject: Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Response to Pre-Consultation Letter

Dear Mr. Bersson,

Thank you for your review and comment to our pre-consultation letter for the subject project. We have reviewed the comments listed in your August 13, 2007 letter and would like to offer the following responses:

1. Comment: The USACE is responsible for maintenance of the existing breakwater structures and to maintain the authorized depths within the Federal project limits within the harbor including the entrance channel and turning basin areas.

   Response: Noted.

2. Comment: The USACE requires a permanent maintenance easement ROW and access to the root of both breakwater structures should either structure require maintenance in the future.

   Response: Noted. A maintenance easement will be provided to the east breakwater structure. Access to the west breakwater will remain unrestricted.

3. Comment: Easement should remain clear of any permanent obstructions to allow access from Queen Kaahumanu Highway to the breakwaters.

   Response: See response to Item 2.

4. Comment: If the construction activities will disturb one or more acres of ground surface, the proponent should seek coverage under the State's General Permit for Stormwater Discharges Associated with Construction Activities.

   Response: Noted. An application for an NPDES NOI-C permit will be submitted in the design phase of this project.

5. Comment: According to the current State Water Quality Standards Maps, Kawaihae is located within Class A Marine waters.

   Response: Noted.

6. Comment: Kawaihae Harbor is listed as an impaired water body for turbidity according to the State's 2004 303d Report. Consultation with the State Clean Water Branch is suggested for clarification on how this would impact the NPDES permit. The current General Permit for Stormwater Discharges Associated with Construction Activities expires on 11/6/07.

   Response: Noted. The Consultant will apply for all applicable construction permits. The NPDES NOI-C application will be submitted after November 2007.

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5. Comment: It is suggested that the County of Hawai'i Planning Office be contacted to determine if a SMA permit is needed.

   Response: A pre-consultation letter was sent to COH Planning in July 2007. They replied that a SMA permit will be needed for activities mauka of the shoreline.

The comments received have been incorporated into the Draft Environmental Assessment (DEA), which is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. A copy of the DEA is enclosed for your review and information.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosure: Draft Engineering Assessment

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October 11, 2007

Mr. George P. Young, P.E., Chief
Regulatory Branch
Pacific Ocean Division
Building 230
Fort Shafter, Hawai'i 96858-5400

Subject: Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Response to Pre-Consultation Letter

Dear Mr. Young,

Thank you for your review and comment to our pre-consultation letter for the subject project. We have reviewed the comments listed in your August 23, 2007 letter and would like to offer the following responses:

1. Comment: The DEA should indicate those activities which will be over, in and under waters of the U.S.

   Response: A description of the activities was included in the DEA.

2. Comment: The DEA should describe the project activities which have the potential to result in the discharge of dredged or fill material into waters of the U.S.

   Response: A description of the activities was included in the DEA.

3. Comment: The DEA should address whether aids to navigation are part of, or excluded from the proposed project. The placing of fixed and floating aids to navigation in a navigable water of the U.S. as well as floating docks and boat ramps are within the purview of Section 10 of the Rivers and Harbors Act of 1899. In particular, these aids are of particular interest to the U.S. Coast Guard because of its control over the marking, lighting, and standardization of such navigable aids.

   Response: Navigation aids will not be included in this project. A statement was added to the DEA. There are currently navigation aids on the east and west breakwaters, as well as at the harbor entrance.

4. Comment: The findings of the DEA should state in appropriate sections that there is, or is no potential for waters of the U.S. to be impacted by construction of project structures and associated ground disturbing activities within the proposed development area.

   Response: Statement and/or discussion of the potential impact to the State and Federal waters have been included in the DEA. As part of the permitting process, all necessary DOH and COE water quality construction permits will be applied for and obtained prior to any construction activities.

5. Comment: Upon receipt of the Final EA, it may be determined whether a Dept. of Army (DA) permit for Section 10 activities of the Rivers and Harbors Act and Section 404 activities of the Clean Water Act may or may not be required.

   Response: Noted.

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The comments received have been incorporated into the Draft Environmental Assessment (DEA), which is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. A copy of the DEA is enclosed for your review and information.

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Sincerely,

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Martin Nakasone
Engineering Manager

Enclosure: Draft Engineering Assessment

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October 11, 2007

Ms. Cherrie Cervantes
U.S. Coast Guard, 14th C.G. District
300 Ala Moana Blvd., Suite 9-108
Honolulu, HI 96850-4982

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment

Dear Ms. Cervantes,

Thank you for your review and comment to our pre-consultation letter for the subject project. We are writing to inform you that the Draft Environmental Assessment (DEA) has been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental resources project area. The State of Hawai'i Department of Land and Natural Resources has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

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October 11, 2007

Superintendent
U.S. Department of the Interior
National Park Service
62-3601 Kawaihae Road
Kawaihae, HI 96743

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Superintendent,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your organization in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the National park Service did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

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Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

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October 11, 2007

Mr. Patrick Leonard, Field Supervisor
U.S. Fish & Wildlife Service, Pacific Region
300 Ala Moana Boulevard, #3-122
Honolulu, HI 96850

Subject: Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Response to Pre-Consultation Letter

Dear Mr. Leonard,

Thank you for your review and comment to our pre-consultation letter for the subject project. We have reviewed the comments listed in your August 13, 2007 letter and would like to offer the following responses:

1. Comment: The National Marine Fisheries Services has regulatory authority under the Endangered Species Act of 1973, as amended [16 U.S.C. 1531-1544] for the humpback whale and for sea turtles that are in the ocean and not hauled out or nesting on the beach.

   Response: A request for consultation letter was sent to the National Marine Fisheries Service.

2. Comment: Documentation in our files indicates that the federally threatened Newell's shearwater (Puffinus auricularis newelli) and the federally endangered Hawaiian petrel (Pterodroma phaeopygia sandwichensis) are known to occur in the vicinity of the action area.

   Response: This information has been incorporated into the DEA.

3. Comment: Several species which are not listed under the Endangered Species Act but which are protected under the Migratory Bird Treaty Act [16 U.S.C. 703-712] may also transit the area. Bright lights can disorient night flying seabirds, causing them to land on the ground where they are vulnerable to vehicle collisions and non-native predators. To minimize project impacts to these birds, we recommend that all outdoor lighting associated with the project be shielded downward so that the bulb is not visible, at bulb height, from the side.

   Response: These recommendations have been incorporated into the DEA.

4. Comment: We are concerned that the proposed action may affect listed seabirds protected under the Endangered Species Act and/or the Migratory Bird Treaty Act. If lighting associated with the improvements to the small boat harbor is down-shielded and lights use the shortest poles and lowest wattage possible and do not extend above the height of existing vegetation, this will minimize the potential for disorienting listed seabirds traveling to or from their montane nesting areas and minimize collisions of listed seabirds with light poles.

   Response: The recommendations provided have been incorporated into the DEA, and will be included in the facility design.

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The comments received have been incorporated into the Draft Environmental Assessment (DEA), which is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. A copy of the DEA is enclosed for your review and information.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mailings should be sent to either of the following two addresses:

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Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosure: Draft Engineering Assessment

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October 11, 2007

Mr. Sean Connaughton, Maritime Administrator
U.S. Dept. of Transportation, Maritime Administration (MARAD)
West Building
Southeast Federal Center
1200 New Jersey Avenue, SE
Washington, DC 20590

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Mr. Connaughton,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your office in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the MARAD did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

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841 Bishop Street, Suite 1900
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October 11, 2007

Mr. Dean Higuchi
Pacific Islands Contact Office
U.S. EPA, Region 9
P.O. Box 50003
Honolulu, HI 96850

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Mr. Higuchi,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your office in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the EPA did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

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Engineering Manager

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October 11, 2007

Mr. Douglas Tom, Program Manager
Hawai'i Coastal Zone Management Program
Dept. of Business, Economic Development and Tourism
Office of Planning
P.O. Box 2359
Honolulu, HI 96804

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment

Dear Mr. Tom,

Thank you for your response to our pre-consultation letter for the subject project. We are writing to inform you that the Draft Environmental Assessment (DEA) has been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental resources project area. The State of Hawai'i Department of Land and Natural Resources has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

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Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

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841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
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October 11, 2007

Mr. Ken Taguchi, Information & Community Relations
Department of Hawaiian Home Lands
1099 Alakea Street, Suite 2000
Honolulu, HI 96813

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment

Dear Mr. Taguchi,

Thank you for your response to our pre-consultation letter for the subject project. We are writing to inform you that the Draft Environmental Assessment (DEA) has been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental resources project area. The State of Hawai'i Department of Land and Natural Resources has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

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Sincerely,

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Martin Nakasone
Engineering Manager

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October 11, 2007

Mr. Newton Inouye, Acting District Environmental Health Program Chief
Department of Health
District Health Office
P.O. Box 916
Hilo, Hawai'i 96720

Subject: Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Response to Pre-Consultation Letter

Dear Mr. Inouye,

Thank you for your review and comment to our pre-consultation letter for the subject project. We have reviewed the comments listed in your August 8, 2007 letter and would like to offer the following responses:

1. Comment: Army Corps of Engineers should be contacted with regards to a Section 401 Water Quality Certification.

   Response: The design consultant will apply for the necessary Federal, State, and County permits for construction.

2. Comment: The Director of Health may require the submittal of an individual permit application or a NOI for general permit coverage authorized under the NPDES.

   Response: All applicable construction and water quality permits will be applied for and obtained for this project.

3. Comment: The applicant for an NPDES permit is required to either submit a copy of the new NOI or NPDES permit application to SHPD or demonstrate to the satisfaction of the DOH that the project, activity, or site covered by the NOI or application has been or is being reviewed by SHPD. If applicable, please submit a copy of the required for review by SHPD or SHPD's determination letter for the project.

   Response: See response to Item #2. SHPD has been consulted for this project.

4. Comment: Any discharges related to project construction or operation activities, with or without a Section 401 WQC or NPDES permit coverage shall comply with the applicable State Water Quality Standards.

   Response: This project will comply with all regulations regarding water quality requirements.

5. Comment: Wastewater Branch found no wastewater/environmental health concerns with regulatory implications in the submittal.

   Response: Noted.

5. Comment: The use of individual wastewater systems is allowed. The type and number of individual wastewater systems to be used on each lot will be determined by the wastewater rules in effect at the time of the building permit application.

   Response: Noted.

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The comments received have been incorporated into the Draft Environmental Assessment (DEA), which is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

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October 11, 2007

Dr. William Walsh, Ph.D., Aquatic Biologist
Dept. of Land and Natural Resources
Aquatic Resources Division-Kona
74-380B Kealakehe Parkway
Kailua-Kona, HI 96740

Subject: Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Dr. Walsh,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your office in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the DLNR Aquatics Resources Division did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

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Martin Nakasone
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October 11, 2007

Ms. Melanie A. Chinen, Administrator
Dept. of Land and Natural Resources
State Historic Preservation Division (SHPD)
Kakuhihewa Building
601 Kamokila Blvd., Suite 555
Kapolei, HI 96707

Subject: Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Ms. Chinen,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your office in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the SHPD did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. A copy of the DEA is enclosed for your review and comment.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

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Sincerely,

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Martin Nakasone
Engineering Manager

Enclosure: Draft Engineering Assessment

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May 21, 2008

Ms. Pua Aiu, Administrator
State of Hawai'i Department of Land and Natural Resources
State Historic Preservation Division
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, HI 96707

Subject: Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Final Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Ms. Aiu,

A letter of request for review and consultation was submitted to the State Historic Preservation Division (SHPD) during the pre-consultation phase of the subject project (letter dated July 11, 2007), and a copy of the Draft EA was submitted for review (October 11, 2007) . This project proposes to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

We will assume that the SHPD has no knowledge of any historical properties that may be affected by the sites listed in this project as the 30-day review period has concluded without correspondence from your office.

A Final Environmental Assessment (EA) for the subject project is being completed, and will be submitted to the State of Hawai'i Office of Environmental Quality Control on Wednesday, May 28, 2008 for publication in *The Environmental Notice*. Formal publication of this document is scheduled for June 8, 2008. The Final EA will be available for review at the Department of Land and Natural Resources Division of Boating and Ocean Recreation, the Office of Environmental Quality Control (Honolulu) as well as the Bond Memorial Public Library in Kapa'au, Hawai'i.

Should you have any questions, please feel free to contact either Ms. Jamie Hikiji or myself via telephone, postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses: Martin.Nakasone@m-e.aecom.com or Jamie.Hikiji@m-e.aecom.ecom.

Thank you very much for your time and assistance.

Sincerely,
M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Ms. Morgan Davis, SHPD Hawai'i Island Office
Ms. Valerie Suzuki, DLNR Engineering Division
Project File

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

October 11, 2007

Mr. Samuel Lemmo, Administrator
Dept. of Land and Natural Resources
Office of Conservation and Coastal Lands
P.O. Box 621
Honolulu, HI 96809

Subject: Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Response to Pre-Consultation Letter

Dear Mr. Lemmo,

Thank you for your review and comment to our pre-consultation letter for the subject project. We have reviewed the comment listed in your August 16, 2007 letter and would like to offer the following response:

1. Comment: The work will occur in the State Land Use (SLU) Conservation District, Resource subzone. The site is currently managed by the DLNR-DOBOR and is considered a non-conforming use. The proposed elements of the project proposed in the Conservation District are considered routine repair and maintenance for a use of which no permit is required. The project is minor in scope and within the scope of Kawaihae Small Boat Harbor operations and maintenance.

   Response: Noted. This information has been incorporated into the DEA.

The comments received have been incorporated into the Draft Environmental Assessment (DEA), which is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. A copy of the DEA is enclosed for your review and information.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,
M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosure: Draft Engineering Assessment

cc: Project File

M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

October 11, 2007

Mr. Barry Fukunaga, Director
Dept. of Transportation
869 Punchbowl Street.
Honolulu, Hawai'i 96813-5097

Subject: Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Response to Pre-Consultation Letter

Dear Mr. Fukunaga,

Thank you for your review and comment to our pre-consultation letter for the subject project. We have reviewed the comments listed in your August 14, 2007 letter and would like to offer the following responses:

1. Comment: Project plans for the South Small Boat facility will need advance review and coordination with both our Harbors Division and Highways Division.

   Response: Work on or near the highway will not be done under this project. Coordination with both agencies will be done during the design phase.

2. Comment: Boat traffic and circulation will need to be addressed in regards to necessary safety factors associated with the mix of commercial vessels and small boats using the Kawaihae Harbor complex. Boating activities and Harbor operations on the harbor lands should also be discussed.

   Response: Installation of the proposed facilities will remove the existing light-draft traffic from the Deep-draft harbor. The SBH improvements will result in a safer environment for both commercial and light-draft vessels. Only light-draft commercial vessels (such as smaller charter boats) will utilize the SBH.

3. Comment: Ingress and egress at and to/from the fronting State highway to the South boat facility will need to be addressed for traffic purposes.

   Response: The existing ingress and egress to/from the State Highway is not anticipated to be greatly affected by the proposed project. The anticipated users of the improved SBH are those who currently utilize the Deep-draft harbor to launch their vessels. Increased traffic is not anticipated due to this project. A discussion of the traffic impacts is included in the EA.

4. Comment: Your firm and the Boating & Ocean Recreation staff of the Dept. of Land & Natural Resources (DOBOR-DLNR), should consult with the Hawai'i District Offices and Planning Branches of our respective Harbors and Highways Divisions, and when the EA is completed, provide copies to both of the district and planning staff for their review and comments.

   Response: A copy of the DEA will be provided to both agencies for their information and review.

5. Comment: For administrative departmental coordination purposes, a copy of the environmental report should also be transmitted to our Statewide Transportation Planning Office.

   Response: A copy of the Final EA will be sent to the Statewide Transportation Planning Office.

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The comments received have been incorporated into the Draft Environmental Assessment (DEA), which is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. A copy of the DEA will be sent to the DOT Highways Division Planning Branch and the DOT Harbors Division District Office, as requested. Please contact us if you would also like a copy of the DEA to review.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

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We are still writing the book

LINDA LINGLE
GOVERNOR

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

BARRY FUKUNAGA
DIRECTOR

Deputy Directors
MICHAEL D. FORMBY
FRANCIS PAUL KEENO
BRENNON T. MORIOKA
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

STP 8.2694

November 30, 2007

RECEIVED
DEC 5 2007
M & E PACIFIC, INC.

Mr. Martin Nakasone
Engineering Manager
M & E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

Dear Mr. Nakasone:

Subject: Kawaihae Small Boat Harbor (South) Improvements Phase I
Draft Environmental Assessment (Draft EA)
TMK: 6-1-003: Por. 026

Thank you for requesting our review of the subject project by the Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DBOR).

Our comments are as follows:

1. This is an interim reply letter which is provided as a follow-up to verbal comments provided by DOT staff.

2. As discussed, the various DOT offices did not receive copies of the Draft EA as we had requested in the early consultation, thus the delay in distribution of the Draft EA does not allow for comprehensive review of the document. DOT respectfully requests a three-week extension of the response deadline.

3. DOT continues to recommend that the Harbors and Highways Division's Hawaii District Offices be consulted to ascertain any operational issues.

4. We further request that these coordinating efforts and our forthcoming comments be documented in the final EA.

We appreciate the opportunity to provide interim comments.

Very truly yours,

BARRY FUKUNAGA
Director of Transportation

c: Division of Boating and Ocean Recreation, DLNR
Christopher Yuen, Hawaii Planning Department

45801

LINDA LINGLE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

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

December 7, 2007
(Re-sent 12/26/07)*

BOR-E 0205.08

RECEIVED
DEC 27 2007
M & E PACIFIC, INC.

Mr. Brennon Morioka
Acting Director
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Mr. Morioka:

SUBJECT: Kawaihae Small Boat Harbor (South) Improvements
Phase I Draft Environmental Assessment (Draft EA)

Thank you for your response regarding our request for Draft EA comments concerning the subject project (Letter No. STP 8.2694, dated November 30, 2007).

We have no objections to your request for a three-week extension to provide comments to the Draft EA. Please send your written comments to Mr. Martin Nakasone, Engineering Manager, * M&E Pacific, Inc., 841 Bishop Street, Suite 1900, Honolulu, Hawaii 96813, by Friday, December 14, 2007.

We look forward to your Department's input as an integral part of our ongoing efforts to coordinate any project issues regarding the harbor. If you should have any questions, please call Mr. Edward R. Underwood at 587-1966.

Sincerely,

Laura H.Thielen
Chairperson

cc: BOR-E
Mr. Martin Nakasone, Engineering Manager, M&E Pacific, Inc.

LINDA LINGLE
GOVERNOR

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

BRENNON T. MORIOKA
ACTING DIRECTOR

Deputy Directors
MICHAEL D. FORMBY
FRANCIS PAUL KEENO
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

STP 8.2720

December 21, 2007

RECEIVED
DEC 26 2007
M & E PACIFIC, INC.

Mr. Martin Nakasone
Engineering Manager
M & E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

Dear Mr. Nakasone:

Subject: Kawaihae Small Boat Harbor (South) Improvements Phase I
Draft Environmental Assessment (Draft EA)
TMK: 6-1-003: Por. 026

Thank you for requesting our review of the subject project. This letter is provided as a follow up to our interim reply letter STP 8.2694 dated November 30, 2007.

Our additional comments are as follows:

1. The Draft EA states on page 17 under Project History and Description, "The Kawaihae Deep-draft Harbor was constructed in 1959 without a light-draft component…In 1969, the small boat harbor was constructed adjacent to the deep-draft harbor for light draft vessels…in July 1998 the west breakwater extension and east revetted mole with connecting breakwater was transferred from DOT-Harbors to DLNR-DOBOR."

   This stated transfer of the offshore improvements is incorrect. Offshore improvements (breakwaters, revetment, dredging) constucted by the U.S. Army Corps of Engineers (USACE) remains their property to be maintained through the life of the project.

2. Figure 3-3 of the Draft EA, Existing Project Shore Side Site, delineates the General Project Limits that include some lands and offshore water area. The Shore side boundary between DOT and DLNR should be identified as conceptual as the property line is as yet undefined. Land surveys and amended Executive Orders will be necessary for the land transfer.

3. As stated on page 27 of the Draft EA under Technical, "...The DOT-Harbors is considering the transferal of ownership of a portion of the land to DLNR-DOBOR...This land transfer is currently under discussion with DOT-Harbor and DLNR-DOBOR, and has not been finalized at this time."

    a. DOT-Harbors proposes to transfer a 10-acre area to DLNR-DOBOR a 10-acre area (see attached colored map). DLNR-DOBOR desires a larger area and is being asked to justify the additional acreage. Land surveys and amended Executive Orders will be necessary for any land transfer.

    b. The configuration of a dedicated access roadway (see attached figure) from the project to Akoni Pule Highway is still being negotiated between DOT-Harbors and DLNR-DOBOR. DLNR-DOBOR should also be coordinating with DOT-Highways for their input regarding the location of the new driveway access to Akoni Pule Highway. Pending the final determination of the roadway configuration, all utility connections for wastewater, water and electricity should be constructed along the new roadway and independent of the DOT-Harbor system.

4. As stated on page 47 of the Draft EA under Traffic, "The primary vehicular access to the Kawaihae SBH (South) is off of Akoni Pule Highway... through a secured gate at the entrance to the Port of Kawaihae....A secondary vehicular entrance is...closed due to Maritime Security (MARSEC)."

    a. DOT-Harbors is concerned with the growing commercial vehicle traffic and the development of new recreational facilities, which will share the same internal roadway. DLNR-DOBOR should coordinate with DOT- Highways regarding the location of the new driveway access to Akoni Pule Highway. In addition, DOT-Harbors requests that security fencing, 8-feet high with three strands of barbed wire, be provided to separate the recreational area and traffic from commercial harbor operations.

    b. Throughout the interim period before the new small boat harbor access road is constructed, DLNR-DOBOR must coordinate with DOT-Harbors on their use of the existing secured gate to Kawaihae Harbor for access to the subject project. DLNR-DOBOR must also keep DOT-Highways updated on their plans to develop the new driveway access to Akoni Pule Highway.

We appreciate the opportunity to provide comments.

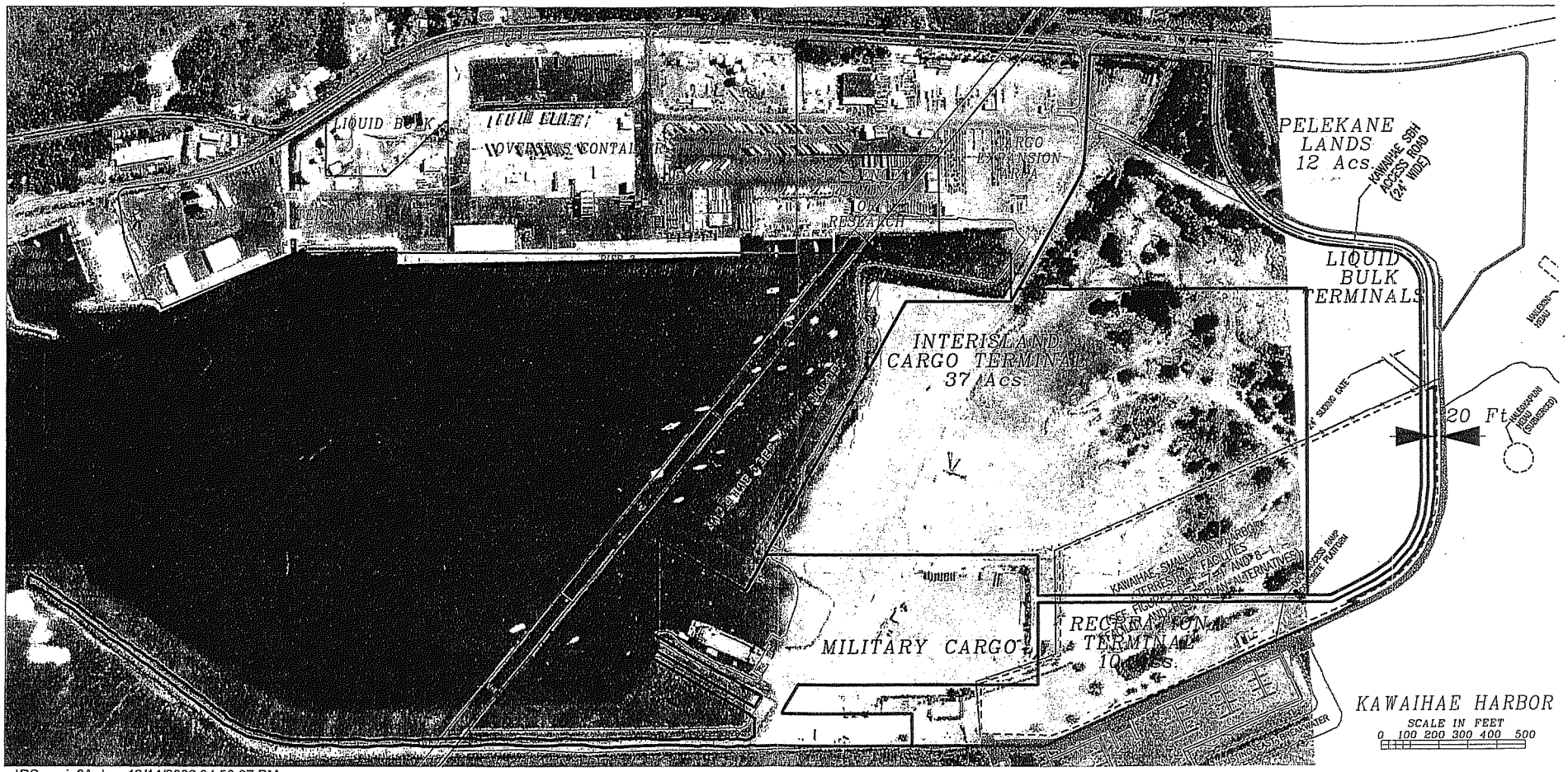
Very truly yours,

Francis Paul Keanu

for BRENNON T. MORIOKA, PH.D., P.E.
Acting Director of Transportation

Attach.

c: Division of Boating and Ocean Recreation, DLNR
Christopher Yuen, Hawaii Planning Department



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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

October 11, 2007

Mr. Glenn Okimoto, Harbors Administrator
State of Hawai'i Department of Transportation
Harbors Division
79 South Nimitz Highway, Room 310
Honolulu, HI 96813-4898

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Mr. Okimoto,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your office in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the DOT Harbors Division did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. A copy of the DEA is enclosed for your review and comment.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosure: Draft Engineering Assessment

cc: Project File

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LINDA LINGLE
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 SOUTH NIMITZ HIGHWAY
HONOLULU, HAWAII 96813-4898

BARRY FUKUNAGA
DIRECTOR

Deputy Directors
MICHAEL D. FORMBY
FRANCIS PAUL KEENO
BRENNON T. MORIOKA
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP
5630.08

October 25, 2007

RECEIVED
NOV 1 2007
M & E PACIFIC, INC.

Mr. Martin Nakasone
Engineering Manager
M & E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

Dear Mr. Nakasone:

Subject: Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1,
Draft Environmental Assessment

Thank you for your letter dated October 11, 2007. Regarding your request for a pre-assessment review of the "Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1, Draft Environmental Assessment" submitted to my office in July 2007, we have been in discussions with Mr. Ed Underwood of the Division of Boating and Ocean Recreation Department of Land and Natural Resources on the development of the area. He is aware of the issues with development of this area.

The response letter dated August 14, 2007 sent from Mr. Barry Fukunaga, Director of Transportation, to you addresses our concerns and is representative of the Department of Transportation. Please adhere to our comments and concerns, and we will shortly provide you any comments to the Draft Environmental Assessment.

Very truly yours,

DAVIS K. YOGI
Harbors Administrator

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

October 11, 2007

Mr. Ronald Tsuzuki, Head Planning Engineer
State of Hawai'i Department of Transportation
Highways Division
Planning Branch
869 Punchbowl Street, Room 301
Honolulu, Hawai'i 96813

Subject: Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Mr. Tsuzuki,

The State of Hawai'i Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The Director of the Department of Transportation was contacted during the EA pre-consultation period, and he requested that the Planning Branch be given the opportunity to provide a review of the proposed project. Therefore, a copy of the completed Draft Environmental Assessment (DEA) is enclosed for your review and comment. While work under this project is not anticipated to affect the Akoni Pule Highway directly, please contact us with any comments or concerns that should be addressed in the EA or during the design phase.

The research and consultation performed for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project. The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosure: Draft Engineering Assessment

cc: Project File

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

November 12, 2007

Mr. Ken Tatsuguchi, Programming Staff Manager
Statewide Transportation Planning Office
869 Punchbowl Street, Suite 404
Honolulu, Hawai'i 96813

Subject: Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Mr. Tatsuguchi,

The State of Hawai'i Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

The Director of the Department of Transportation was contacted during the EA pre-consultation period, and he requested that the Statewide Transportation Planning Office be given the opportunity to provide a review of the proposed project. Therefore, a copy of the completed Draft Environmental Assessment (DEA) is enclosed for your review and comment. While work under this project is not anticipated to affect the Akoni Pule Highway directly, please contact us with any comments or concerns that should be addressed in the EA or during the design phase.

The research and consultation performed for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project. The DEA was published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice* on October 23, 2007.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosure: Draft Environmental Assessment

cc: Project File

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

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November 25, 2007

Mr. Elton Teshima
Statewide Transportation Planning Office
869 Punchbowl Street, Suite 404
Honolulu, Hawai'i 96813

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Mr. Teshima,

The State of Hawai'i Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

As discussed, the Director of the Department of Transportation requested that the Statewide Transportation Planning Office be given the opportunity to provide a review of the proposed project. Therefore, a pdf copy of the completed Draft Environmental Assessment (DEA) is enclosed for your review and comment. While work under this project is not anticipated to affect the Akoni Pule Highway directly, please contact us with any comments or concerns that should be addressed in the EA or during the design phase.

The research and consultation performed for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project. The DEA was published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice* on October 23, 2007.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosure: Draft Environmental Assessment (Pdf Copy)

cc: Project File

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

October 11, 2007

Ms. Ululani Sherlock, Community Resource Coordinator
Office of Hawaiian Affairs
162-A Baker Avenue
Hilo, HI 96720

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Ms. Sherlock,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your office in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the Office of Hawaiian Affairs did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

October 11, 2007

Mr. Milton Marinez, Soil Scientist
State Conservationist
Natural Resources Conservation Service
P.O. Box 50004
Honolulu, HI 96850

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Mr. Martinez,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your office in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the NRCS did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

October 11, 2007

Ms. Bobby-Jean Leithead-Todd, Director
County of Hawai'i
Dept. of Environmental Management
25 Aupuni Street, Room 210
Hilo, Hawai'i 96720

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment

Dear Ms. Leithead-Todd,

Thank you for your response to our pre-consultation letter for the subject project. We are writing to inform you that the Draft Environmental Assessment (DEA) has been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental resources project area. The State of Hawai'i Department of Land and Natural Resources has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

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841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

October 11, 2007

Ms. Patricia Engelhard, Director
County of Hawai'i
Department of Parks and Recreation
101 Pauahi Street, Suite 6
Hilo, Hawai'i 96720

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Ms. Engelhard,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your office in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the County Department of Parks and Recreation did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

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Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

1907 – 2007
We are still writing the book

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

October 11, 2007

Mr. Bruce McClure, Director
County of Hawaii
Department of Public Works
75-5706 Kuakini Highway, Suite 109-111
Kailua-Kona, Hawai'i 96740

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Mr. McClure,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your office in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the County Department of Public Works did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

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Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

METCALF & EDDY | AECOM

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841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

October 11, 2007

Mr. Milton Pavao, Department Head
County of Hawaii
Dept. of Water Supply
345 Kekuanaoa Street, Suite 20
Hilo, Hawai'i 96720

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Mr. Pavao,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your office in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the County DWS did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

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Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

1907 - 2007
We are still writing the book

Hikiji, Jamie

From: Hikiji, Jamie
Sent: Saturday, October 27, 2007 10:47 AM
To: 'McCall, Finn'
Cc: Nakasone, Martin
Subject: RE: DEA for Kawaihae Small Boat Harbor Improvements, Phase 1

Hello Finn,

Thank you for your inquiry. The DEA is not currently available online, so I will mail you a pdf copy of the document on CD on Monday. Please contact us with any comments or concerns you may have regarding the proposed project.

If there are any questions, please contact me at (808) 521-3051, fax (808) 524-0246 or e-mail Jamie.Hikiji@m-e.aecom.com.

Thank you,
Jamie Hikiji

From: McCall, Finn [mailto:fmccall@hawaiidws.org]
Sent: Friday, October 26, 2007 3:21 PM
To: Hikiji, Jamie; Nakasone, Martin
Subject: DEA for Kawaihae Small Boat Harbor Improvements, Phase 1

Jamie/Martin,

We've received your letter, dated October 11, 2007, regarding the subject DEA. Is the DEA available online somehow? We may have some issues in terms of water availability and backflow prevention to address.

Thanks, Finn

Finn McCall
Civil Engineer
Department of Water Supply - County of Hawaii
Water Resources and Planning Branch
Phone: (808) 961-8070, ext. 255
Fax: (808) 961-8080
email: fmccall@hawaiidws.org
website: www.hawaiidws.org

The Department of Water Supply is an Equal Opportunity Employer and Provider

DEA for Kawaihae Small Boat Harbor Improvements, Phase 1 Page 1 of 1

Hikiji, Jamie

From: McCall, Finn [fmccall@hawaiidws.org]
Sent: Friday, October 26, 2007 3:21 PM
To: Hikiji, Jamie; Nakasone, Martin
Subject: DEA for Kawaihae Small Boat Harbor Improvements, Phase 1

Jamie/Martin,

We've received your letter, dated October 11, 2007, regarding the subject DEA. Is the DEA available online somehow? We may have some issues in terms of water availability and backflow prevention to address.

Thanks, Finn

Finn McCall
Civil Engineer
Department of Water Supply - County of Hawaii
Water Resources and Planning Branch
Phone: (808) 961-8070, ext. 255
Fax: (808) 961-8080
email: fmccall@hawaiidws.org
website: www.hawaiidws.org

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DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAI'I
345 KEKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAI'I 96720
TELEPHONE (808) 961-8050 • FAX (808) 961-8657

November 20, 2007

RECEIVED
DEC 5 2007
M & E PACIFIC, INC.

Mr. Martin Nakasone
M & E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, HI 96813

DRAFT ENVIRONMENTAL ASSESSMENT
PROPOSED KAWAIHAE SMALL BOAT HARBOR (SOUTH) IMPROVEMENTS, PHASE 1
TAX MAP KEY 6-1-003:026 (PORTION)

We have reviewed the subject Draft Environmental Assessment and have the following comments.

1. There is an existing 12-inch waterline within Akoni Pule Highway that serves the Kawaihae Harbor. Please be informed that the Department's water system facilities cannot support the estimated 0.02 million-gallons per day (MGD) demand for the proposed improvements at this time. Extensive improvements and additions must be constructed to support the additional demand, which may include, but not be limited to, source, storage, transmission, and distribution facilities. Currently, funding is not available from the Department and no schedule is set for such improvements.

2. In order to ascertain the water needs of the project, the Department recommends that a professional engineer licensed in the State of Hawaii submit estimated maximum daily usage calculations to the Department for review and comment.

3. Any water meter(s) serving the proposed project will require a reduced pressure type backflow prevention assembly installed within five (5) feet of the meter on the owner's property, if the existing service(s) do not already have one installed. The installation of all backflow prevention assemblies must be inspected and approved by the Department before water service can be activated.

4. Please be informed that the existing 12-inch waterline within Akoni Pule Highway has a maximum capacity of approximately 3,522 gallons per minute. We suggest that the Fire Department be consulted if additional capacity is needed at the site for fire protection.

Should there be any questions, please contact Mr. Finn McCall of our Water Resources and Planning Branch at 961-8070, extension 255.

Sincerely yours,

Milton D. Pavao, P.E.
Manager

FM:dfg

copy - Planning Department

... Water brings progress...

The Department of Water Supply is an Equal Opportunity provider and employer. To file a complaint of discrimination, write: USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington DC 20250-9410. Or call (202) 720-5964 (voice and TDD)

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAI'I
345 KEKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAI'I 96720
TELEPHONE (808) 961-8050 • FAX (808) 961-8657

March 17, 2008

Ms. Jamie Hakiji
M & E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, HI 96813

WATER USAGE CALCULATIONS
PROPOSED KAWAIHAE SMALL BOAT HARBOR (SOUTH) IMPROVEMENTS, PHASE 1
TAX MAP KEY 6-1-003:026 (PORTION)

We have reviewed the estimated water usage calculations for the subject project and have the following comments.

1. Based on the information provided, the estimated maximum daily water usage for this project is 2,685 gallons per day (GPD), which is equivalent to 5 units of water at 600 GPD per unit.

2. Please resubmit the water usage calculations with the signature and stamp of the appropriate professional engineer licensed in the State of Hawai'i, as required per our Rules and Regulations.

3. As indicated on Page 35 of the Draft Environmental Assessment for this project, please include a map showing the location and meter number of the existing 2-inch meter that was proposed to serve the project. The Department must evaluate the historical water usage through that meter to determine if the meter size is adequate to accommodate the estimated additional flow.

4. If the existing 2-inch meter can accommodate the additional flow and there was a sufficient amount of water allocated to that meter, water service may be granted.

5. If the existing 2-inch meter is to be utilized, a reduced pressure type backflow prevention assembly must be installed within 5 feet of the meter, unless there is an existing backflow prevention assembly installed.

Should there be any questions, please contact Mr. Finn McCall of our Water Resources and Planning Branch at 961-8070, extension 255.

Sincerely yours,

Milton D. Pavao, P.E.
Manager

RECEIVED
MAR 25 2008
M & E PACIFIC, I

FM:dfg

copy - Planning Department
DWS Customer Service Sections (Hilo and Waimea)

... Water brings progress...

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METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

April 1, 2008

Mr. Finn McCall
County of Hawai'i
Department of Water Supply
Water Resources and Planning Branch
345 Kekuanao'a Street, Suite 20
Hilo, Hawai'i 96720

Subject: Environmental Assessment for the Kawaihae Small Boat Harbor (South) Improvements, Phase 1, Kawaihae, Hawai'i
Water Usage Calculations

Dear Mr. McCall,

Thank you for your comments to the draft water usage calculations submitted and to the draft Environmental Assessment. As requested, please find an enclosed signed copy of the water usage calculations for your review and approval. A half-size copy of the project Utility Plan is also attached for your reference. The existing meter that we propose to connect to is labeled as Meter No. 48259111.

Should there be any questions or comments, please contact me at (808) 529-7229 (direct voice), fax (808) 524-0246, or e-mail Jamie.Hikiji@m-e.aecom.com. Thank you.

Thank very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Jamie Hikiji
Project Engineer

Enclosures: Water Usage Calculations with Stamp & Signature
Utility Plan of Proposed Waterline Connection

cc: Project File

KAWAIHAE SMALL BOAT HARBOR (SOUTH) IMPROVEMENTS, PHASE 1

Kohala, Island of Hawai'i, Hawai'i

Water Demand Estimate Calculations

TMK: (3) 6-1-003: Por. 026

March 2008

MARTIN A. NAKASONE
LICENSED PROFESSIONAL ENGINEER
No. 8701-C
HAWAII, U.S.A.

Expiration Date:
April 30, 2008

This work was prepared by me or under my direct supervision.

Signature
M & E Pacific, Inc.
METCALF & EDDY | AECOM

26 March 2008
Date

M&E Pacific, Inc.

METCALF & EDDY | AECOM

Calculations

DATE:	March 7, 2008	**COMPLETED BY:**	JTH
PROJECT NO.:	60024966	**CHECKED BY:**	MAN
PROJECT:	Kawaihae Small Boat Harbor Improvements, Phase 1 Environmental Assessment DNLR Job No. B10CH70A		
SUBJECT:	**Water Demand Estimate - Calculations**		

PURPOSE

The purpose of these calculations is to determine the water demand estimate of the proposed comfort station and water spigots for the Phase 1 proposed improvements at the Kawaihae Small Boat Harbor (South).

REFERENCES

1. *Water System Standards*, State of Hawaii, 2002.
2. *Planning and Design Guidelines for Small Craft Harbors*, ASCE Manuals and Reports on Engineering Practice No. 50, American Society of Engineers, 2000, Revised Edition.

DESIGN CALCULATIONS

1. Kawaihae Small Boat Harbor
   State of Hawai'i, Department of Land and Natural Resources, Division of Boating and Ocean Recreation
   TMK: (3) 6-1-003: Por. 026

2. Estimated Flow Rates:

   Park Comfort Station Use 5 gpdpc
   Boat Slip Use* 25 gpd/slip
   * The water spigots will serve the boat slip users, as no water service will be provided to the floating dock at this time.

3. Visitor Estimate:

   Parking Contribution:
   Visitor Rate – 2.5 people per parking space
   35 Parking spaces to be installed
   2.5 ppl/space x 35 spaces = 87.5 people

   Boat Slip Contribution:
   Visitor Rate – 4 people per slip
   30 slips to be installed
   4 ppl/slip x 30 slips = 120 ppl

   Total Visitor Estimate = **208 people**

4. Usage Estimate:

Comfort Station: 208 people x 5 gpdpc = 1,040 gpd
Boat Slips: 30 slips x 25 gpd/slip = 750 gpd

Total Water Demand Estimate = **1,790 gpd**

Max Daily Demand Estimate = 1,790 gpd x 1.5 = 2,685 gpd

Reported Max Daily Demand Estimate = **0.003 MGD**

T-509 SET
(MAG NAIL)
435556.93 N.
386275.34 E.
ELEV.=15.45

STA 0+27.50 SL-A
1-4" COTG
ASSEMBLY
INV=11.05 (S6)

STA 0+25.00 SL-A
1-6" 1/8 BEND
INV=11.07 (S6)

STA 0+30.00 SL-A
1-6" 1/8 BEND
INV=11.02 (S6)

STA 0+05.00 SL-A
1-4"x4" WYE
1-6"x4" WYE
1-4" COTG ASSEMBLY
1-6" SEWER CAP
5 LF 6" PVC PIPE
INV=11.35 (S4)
INV=11.27 (S6)

STA 0+32.00 SL-A
1-NEW 2,000 GAL SEPTIC
TANK W/EFFLUENT FILTER
INLET INV=11.00 (S6) (1 / C-21)

STA 0+54.00 SL-A
DISTRIBUTION BOX, TYPE C
INV=10.71 (S6 IN)
INV=10.46 (S4 OUT)

18'x40' ABSORPTION
BED, SEE DETAILS
SHT C-22 (1 / C-22)

SL-A BASELINE

STA 0+49.82 SL-A
OUTLET INV=10.75 (S6)

STA 0+00
BEGIN SL-A
CONNECT TO
COMFORT STATION
INV=11.45 (S4)
SEE MECH PLANS

COMFORT STATION

CONCRETE PAVEMENT
EXTENSION
(ADDITIVE BID NO. 1)

30'-WIDE COMPACTED
CORAL ACCESS ROAD

TRUE NORTH
1" = 20'

BOAT TRAILER
PARKING AREA

VEHICLE
PARKING AREA

STA 2+08.00 WL-A
1-2" 1/8 BEND

STA 0+00.00 WL-A
BEGIN WL-A
1-2" CAP FOR W2
STUBOUT

STA 0+07 LATERAL
1-1/2" 1/4 BEND

STA 0+27.00 WL-A
1-2"x1/2" TEE
1-1/2" GV
1-VALVE BOX
21.5± LF 1/2" PVC PIPE
CONNECT TO OUTDOOR SHOWER,
SEE DETAILS SHT C-20

STA 0+60.00 WL-A
1-3/4" ARV
1-ARV BOX

STA 0+46.83 WL-A
1-2" TEE
1-2" GV
1-VALVE BOX
4.5± LF 2" PVC PIPE
CONNECT TO COMFORT STATION,
SEE MECH PLANS

LIGHT POST (TYP),
SEE ELEC PLANS

CONCRETE BOAT
LAUNCH RAMP

2" WATERLINE B

3/4" WL-B

2" WATERLINE A

STA 2+82.00 WL-A
=STA 0+00.00 WL-B
1-2" WYE

STA 3+30.00 WL-A
1-3/4" ARV
1-ARV BOX

STA 3+95.00 WL-A
1-2"x3/4" TEE
1-SPIGOT STAND ASSEMBLY
1-3/4" GV
1-VALVE BOX
16± LF 3/4" PIPE
SEE DETAIL SHT C-19, TYP

MATCHLINE
SEE CON'T
BELOW

STA 0+55.00 WL-B
1-2"x3/4" WYE 1-2" CAP
1-3/4" GV
1-VALVE BOX

3' WIDE GRAVEL HEADER AT
TOP OF REVETMENT (TYP) (2 / C-15)

INSTALL SPIGOT STAND & 4'
DIAMETER CONCRETE BASE
PAD WITH STANDARD FAUCETS

EXISTING REVETMENT

UTILITY PLAN
SCALE: 1"=20'

STA 0+80.97 WL-B
END WL-B
INSTALL SPIGOT STAND & 4'
DIAMETER CONCRETE BASE
PAD WITH STANDARD FAUCETS

STA 10+13.12 WL-A
CONNECT TO EXIST W2
1-2"x2" TEE
1-2" PVC COUPLING

EXISTING BACKFLOW
PREVENTER & METERS

APPROXIMATE LOCATION OF
EXISTING UNPAVED ACCESS
ROAD TO REMAIN

TRUE NORTH
1" = 20'

2-WASHDOWN SPIGOT STANDS
1-2" 1/4 BEND
20± LF 3/4" PVC PIPE

CONCRETE
WASHDOWN
AREA

GENERAL
WASHDOWN
AREA

COMPACTED CORAL
ACCESS ROAD

30'

STA 7+78.95 WL-A
1-2" 1/8 BEND

STA 9+83.39 WL-A
1-2" 1/8 BEND

APPROXIMATE LOCATION OF
EXISTING W2; CONTRACTOR TO
VERIFY IN FIELD

2" WATERLINE A

STA 9+68.39 WL-A
1-2" 1/8 BEND

STA 7+82.00 WL-A
1-3/4" ARV
1-ARV BOX

STA 8+25.00 WL-A
1-2"x3/4" TEE
1-3/4" GV
1-VALVE BOX
LATERAL TO SPIGOT
STANDS

EXISTING YMCA
PAVILION TO
REMAIN

VEHICLE
PARKING AREA

MATCHLINE
SEE ABOVE

STA 5+75.00 WL-A
1-2"x3/4" TEE
1-SPIGOT STAND ASSEMBLY
1-3/4" GV
1-VALVE BOX
12± LF 3/4" PIPE

STA 6+17.00 WL-A
1-2" 1/8 BEND

INSTALL SPIGOT STAND & 4'
DIAMETER CONCRETE BASE
PAD WITH STANDARD FAUCETS

EXISTING OVERLAND
W1 FROM YMCA
FACILITY

EXISTING REVETMENT

UTILITY PLAN
SCALE: 1"=20'

EXISTING YMCA
PAVILION TO REMAIN

NOTES:

1. CONTRACTOR TO VERIFY LOCATION AND INVERTS OF EXISTING UTILITIES IN FIELD.
2. SEE SHT C-13 FOR SEWERLINE AND WATERLINE PROFILES.
3. SEE SHTS C-18 TO C-22 FOR SPIGOT AND IWS DETAILS.
4. SEE MECHANICAL PLANS FOR UTILITY CONNECTIONS TO COMFORT STATION.
5. GATE VALVES AND AIR RELIEF VALVES (ARVs) SHALL CONFORM TO THE COUNTY OF HAWAII "WATER SYSTEM STANDARDS", 2002, SECTION 205.

1" = 20' SCALE 0 20 40 60 FEET

REVISION NO.	SYM.	DESCRIPTION	SHT / OF	BY	APPROVED

MARTIN A. NAKASONE
LICENSED PROFESSIONAL ENGINEER
No. 6701-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXP: 4/30/08

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

KAWAIHAE SMALL BOAT HARBOR (SOUTH) IMPVTS, PH. 1
KAWAIHAE HARBOR
KOHALA, ISLAND OF HAWAII, HAWAII

UTILITY PLAN

DESIGNED:	JTH/MAN	SUBMITTED:	
DRAWN:	JTH	DATE:	3/17/2008
CHECKED:	MAN/MXD	SCALE:	AS NOTED
APPROVED:			

CHIEF ENGINEER DATE

DRAWING NO. C-12

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAI'I
345 KEKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAI'I 96720
TELEPHONE (808) 961-8050 • FAX (808) 961-8657

May 2, 2008

RECEIVED
MAY 13 2008
M & E PACIFIC, INC.

Ms. Jamie Hakiji
M & E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, HI 96813

RESUBMITTED WATER USAGE CALCULATIONS
PROPOSED KAWAIHAE SMALL BOAT HARBOR (SOUTH) IMPROVEMENTS, PHASE 1
TAX MAP KEY 6-1-003:026 (PORTION)

We have reviewed the subject water usage calculations and map showing the location of the proposed water connection.

Based on the information provided, the total estimated maximum daily water usage for the subject project is 2,685 gallons per day (GPD), which is equivalent to 5 units of water at 600 GPD per unit.

We have confirmed that the existing 2-inch meter that will serve the subject project is Account No. 830-35140, which is currently under the name of the Department of Land and Natural Resources. We have also confirmed that there is an existing backflow prevention assembly connected to that meter, and therefore, the installation of a new backflow prevention device will not be necessary.

Prior to granting water service for the proposed project, remittance of the prevailing facilities charge, which is subject to change, is required. Based on the 5 additional units of water needed, the prevailing facilities charge due is $27,500.00 at $5,500.00 per unit.

Should there be any questions, please contact Mr. Finn McCall of our Water Resources and Planning Branch at 961-8070, extension 255.

Sincerely yours,

Milton D. Pavao, P.E.
Manager

FM:dfg

copy: State of Hawai'i, DLNR
Planning Department
DWS Customer Service Sections (Hilo and Waimea)

... Water brings progress...

The Department of Water Supply is an Equal Opportunity provider and employer. To file a complaint of discrimination, write: USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington DC 20250-9410. Or call (202) 720-5964 (voice and TDD)

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October 11, 2007

Mr. Pete Hoffman, Council Chair
Hawai'i County Council
64-1067 Mamalahoa Highway, Suite C-5
Kamuela, Hawai'i 96743

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Councilman Hoffman,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your office in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the Hawai'i County Council did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

October 11, 2007

Mr. Harry Kim, Mayor
County of Hawai'i
Office of the Mayor
25 Aupuni Street
Hilo, HI 96720

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Response to Pre-Consultation Letter

Dear Mayor Kim,

Thank you for your review and comment to our pre-consultation letter for the subject project. We have reviewed the comments listed in your July 23, 2007 letter and would like to offer the following responses:

1. Comment: **Hazards:** Kawaihae Harbor area has experienced disruptions and damages due to the natural hazards of surf, earthquake, and wind. The plans should take these hazards into account in the specific design to mitigate as best as possible these issues. It is emphasized here that special attention should be given to the impact of surf hazards caused by tropical storms and hurricanes. The floating dock concept is obviously a well-tested one, but historical data will show that the present Kawaihae Harbor has suffered many occurrences of light to severe damage caused by surges and surf.

   Response: The boating facilities will be designed with consideration of the hazards typically experienced at Kawaihae Harbor.

2. Comment: **Wind:** A special emphasis is made for the hazard of wind, as generally for the area this is not particularly emphasized. Whether it be in the design, construction phase, or upon completion, there needs to be awareness that winds have created danger and havoc to the area. The area for the proposed project is particularly susceptible to very strong winds, at times near hurricane levels. It is emphasized that these damaging and dangerous winds occur numerous times during the course of a relatively short period, and that the winds are caused by down drafts and not by approaching storms. It is requested that design and construction requirements identify these winds so as to mitigate the impact.

   Response: The proposed improvements will be designed based upon Sea Engineering's design wind speed recommendation of 60 mph, per their *Phase I Berthing and Facilities Plan Report* (1998).

3. Comment: **Fishermen:** The area of the project is popular for local shore fishermen, mainly due to its relative isolation from the rest of the harbor. It is hoped the design will accommodate fishermen.

   Response: The proposed improvements will ensure that the SBH may continue to be used by the local shore fisherman.

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4. Comment: **Recreation:** The small boat recreation harbor facilities for this island also seem to serve as a recreational place for especially children. This is a serious problem for this island's small recreational boat harbors such as the present Kawaihae ramp, as well as Pohoiki and Kailua. It is asked that this is taken into account in the design.

   Response: Personal safety features will be incorporated into the design where feasible.

5. Comment: **Landscaping:** It is noticed that the proposed project does not particularly identify landscaping, but it is hoped that landscaping will also be part of the contract. If one visits Kawaihae Harbor today, you will note that the planting of coconut trees along the roadway was started by one individual many years ago. Landscaping of coconut trees or other foliage will not only add to the use and beauty of the area, but will also mitigate problems of wind or runoff.

   Response: Landscaping is not a part of this phase beyond that needed for erosion control, but will be completed during future phases of the project. The main focus of this project phase is to provide the boating community with useable hardscape features to allow the greatest number of boaters to utilize the SBH as possible, as quickly as possible. Therefore, funds for this project will be directed to construction of the main harbor features. Existing trees and vegetation will be kept in place, as feasible within the design.

The comments received have been incorporated into the Draft Environmental Assessment (DEA), which is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. A copy of the DEA is enclosed for your review and comment.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosure: Draft Engineering Assessment

cc: Project File

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October 11, 2007

Mr. Christopher J. Yuen, Director
County of Hawai'i
Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720

Subject: Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Response to Pre-Consultation Letter

Dear Mr. Yuen,

Thank you for your review and comment to our pre-consultation letter for the subject project. We have reviewed the comments listed in your August 13, 2007 letter and would like to offer the following responses:

1. Comment: According to the General Plan's Land Use Pattern Allocation Guide Map, the subject parcel is designated Open, Industrial, and Medium Density Urban. The project area appears to be Open, which is characterized as "*Parks and other recreational areas, historic sites, and open shoreline areas.*"

   Response: The project site appears to be limited to Open and General Industrial as shown on Figure 5-5 of the enclosed DEA. An access road connection to Akoni Pule Highway will not be provided under this project.

2. Comment: The State Land Use designation is Urban.

   Response: Noted, and incorporated into the DEA.

3. Comment: County zoning is General Industrial (MG-1a), Open (O) and Multiple Family Residential (RM-1.5). Yacht harbors and boating facilities are permitted used in the General Industrial district. Planning Commission approval of a Use Permit is required for a yacht harbor and boating facilities in the Open and the Multiple-Family Residential districts.

   Response: Project area appears to be limited to MG-1a and Open, while adjacent to RM-1.5. A Use Permit will be obtained for this project.

4. Comment: The subject parcel is in the County's Special Management Area (SMA). The proposed improvements mauka of the shoreline will require either a SMA Minor permit or a SMA (Major) Use permit.

   Response: An SMA permit will be prepared and submitted for this project during the design phase.

5. Comment: Depending on the type of improvements or activities within the 40' shoreline setback area, a Shoreline Setback Variance may be required.

   Response: The boat launch ramp, retaining walls, and pedestrian ADA ramp will be constructed within the 40' shoreline setback area. A Shoreline Setback Variance application will be submitted with this project.

6. Comment: All activities makai of the shoreline are outside the jurisdiction of the County.

   Response: Noted. This information has been incorporated into the DEA.

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7. Comment: Plan approval is required prior to the construction of any new structure.

   Response: Noted. County approval will be obtained during the design phase of the project, and prior to construction.

The comments received have been incorporated into the Draft Environmental Assessment (DEA), which is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. A copy of the DEA is enclosed for your review and comment.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosure: Draft Engineering Assessment

cc: Project File

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Harry Kim
Mayor

Christopher J. Yuen
Director

Brad Kurokawa, ASLA
LEED® AP
Deputy Director

County of Hawaii
PLANNING DEPARTMENT
101 Pauahi Street, Suite 3 • Hilo, Hawaii 96720-4224
(808) 961-8288 • FAX (808) 961-8742

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NOV 8 2007
M & E PACIFIC, INC.

October 30, 2007

Mr. Martin Nakasone, Engineering Manager
M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu HI 96813

Dear Mr. Nakasone:

Draft Environmental Assessment
Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Tax Map Key: 6-1-3:Portion of 26, Kawaihae, Kohala, Hawaii

This is to acknowledge receipt of your letter dated October 11, 2007 and a copy of the Draft Environmental Assessment, Kawaihae Small Boat Harbor (South) Improvements, Phase 1.

We have the following to offer:

1. Comment No. 1 of the October 11, 2007 letter referencing the General Plan designation stated the following: *"The project site appears to be limited to Open and General Industrial as shown on Figure 5.5 of the enclosed DEA..."*

   Figure 5-5 refers to the State Land Use Map. The County General Plan is Figure 5-6. The project site does not include the "General Industrial" designation.

2. Pg. 51, 5.4.1 Land Use Designations, Impacts and Mitigative Measures: In the Open (O) zoning, a "Use Permit" is required to establish the proposed use.

3. Pg. 57, Managing Development: The list of required permits should include the County of Hawaii Use Permit.

4. Pg. 57, Managing Development: This discussion on County permits should also include the Shoreline Setback Variance and Plan Approval requirements.

5. Public Access: Continuous lateral shoreline access, pedestrian as well as vehicular, should be addressed separately from Recreational Resources (Pg. 55) and Beach Protection (Pg. 57). These two sections discuss access to the Cultural Surf Park, Pelekane Beach and Samuel M. Spencer Beach Park but does not comment on an alternate safe and continuous lateral access along the shoreline that would allow for pedestrians to traverse between these areas. Further, the *"Location Map"* should be revised to denote this pathway. Finally, please clarify the sentence on Pg. 55, which states that *"The proposed action is not anticipated to negatively affect the operation of or access to the surf park* ***beyond the construction period****"* (emphasis supplied). Again, if existing continuous lateral shoreline access will be temporarily disrupted, alternate safe and traversable vehicular and pedestrian access routes must be established.

Thank you for the opportunity to comment of the proposed project. If you have questions, please feel free to contact Esther Imamura of this Department at 961-8288, extension 257.

Sincerely,

Chris Yuen

CHIRSTOPHER J. YUEN
Planning Director

ETI:cd
P:\wpwin60\ETI\EAdraftPre-consul\Nakasone Kawaihae SBHS2.doc

xc: Planning Department, Kona

BIG ISLAND BUYER'S BROKERS

HIGH COUNTRY TRADERS 201
65-1291 KAWAIHAE ROAD
KAMUELA, HI 96743

RECEIVED
MAR 5 2008
M & E PACIFIC, INC.

March 3, 2008

Jamie Hikiji
M&E Pacific, Inc.
Davies Pacific Ctr., suite 1900
841 Bishop Street
Honolulu, HI 96813

Dear Jamie,

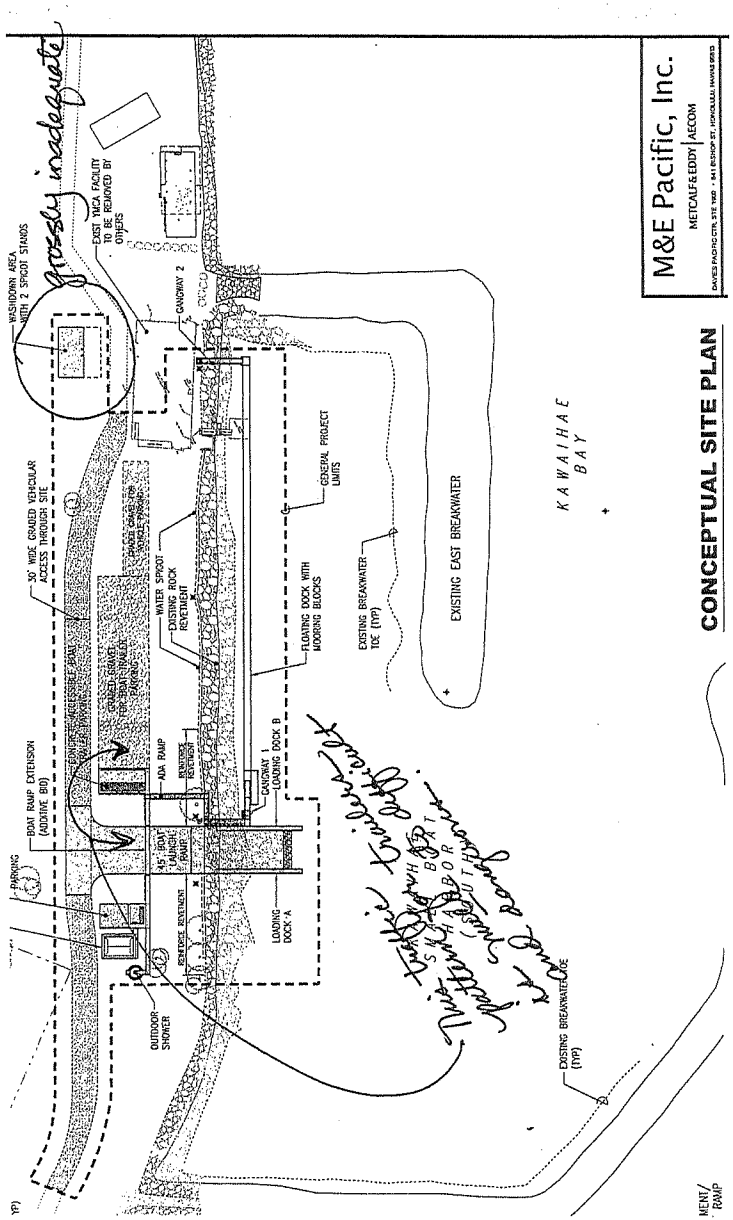
Thank you for your continued efforts in the designing of the Kawaihae Small Boat Harbor (South) Improvements. I have reviewed your latest drawings and see great improvement over the initial draft. You are to be commended for locating the comfort station and outdoor showers to the makai end of the facility, well out of the way of the trailer boat traffic.

The current design locates the trailer parking in an exceedingly difficult location for the drivers of those trucks and trailers. In its current location the design will require the drivers to reverse their truck/trailer rigs in at least a 180-degree arc in order to retrieve their boats at the boat ramp. This is very difficult for even an experienced driver to accomplish and can be very dangerous as well. The trailer parking needs instead to be located along the northern boundary of the property, where the 30' access road is currently designed. If the roadway and the trailer parking are reversed it will help immensely. It appears that the reason that the trailer parking was located so poorly was that the design team saw the need to meet ADA requirements in the chance that a disabled person wanted to launch a trailer boat at the facility. Perhaps allowing this but limiting the parking to one or two vehicles with trailers would suffice.

You will create a failed project by allowing just two boat wash-down spigots for this project. Kawaihae small Boat Harbor, which is all read over-crowded, features six (6) wash-down spigots, and even humble little Puako Small Boat harbor has four (4) spigots for this purpose. The creation of just two boat wash-down spigots for this much larger facility is a guaranty of failure for this project. We are all too familiar with poorly conceived government projects, and we certainly don't want to have one where it will be such a disaster to the community it means to serve.

My understanding is that the design team is working within the restrictions of utilizing the existing 2" water line and the projected demands of slip tenants for fresh water spigots. I note that there is a far greater number of slips as well as many more wash-down spigots utilizing an even smaller fresh water line at Honokohau Harbor today.

VOICE: (808) 885-6061 • FAX: (808) 885-6063 • EMAIL: BILL@JARDINEREALTY.COM



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M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawaii 96813
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April 2, 2008

Mr. Bill Jardine
Big Island Buyer's Brokers
High Country Traders 201
65-1291 Kawaihae Road
Kamuela, Hawai'i 96743

Subject: Kawaihae Small Boat Harbor (South) Improvements, Phase 1; Kawaihae, Hawai'i

Dear Mr. Jardine,

Thank you for your comments to the proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1 project. We would like to offer the following responses to the concerns raised in your letter dated March 3, 2008:

Trailer Parking Location – The area between the trailer parking and the top of the existing rock revetment will be sufficiently graded to allow those with boat trailers to drive out of the parking area and around to meet the access road as shown in the attached sketch. The boat trailer parking and the boat launch ramp were configured to allow adequate space for a WB-40 design vehicle (an intermediate semi-trailer) to make a 180-degree turn between the two areas.

Washdown Spigots – The boat washdown area will have two (2) spigot stands; each stand will have two (2) hose bibbs to allow for a total of four (4) connections at a time. As requested by the community, two (2) additional spigot stands (with two [2] hose bibbs at each stand) will be provided along the top of the rock revetment to allow for boat washdown at the floating dock, and one (1) spigot stand will be provided along the boat launch ramp. Please note that the proposed washdown area and spigot stands are a part of the first phase of the harbor improvements. A full washdown area is planned to be installed during the future phases of the overall harbor build-out.

Thank you again for your comments to the proposed improvements. We appreciate your insight and concern in providing the Kawaihae community with the long-awaited small boat harbor improvements.

Should there be any questions or comments to the above, please contact me at (808) 529-7229 (voice), fax (808) 524-0246, or e-mail Jamie.Hikiji@m-e.aecom.com. Thank you.

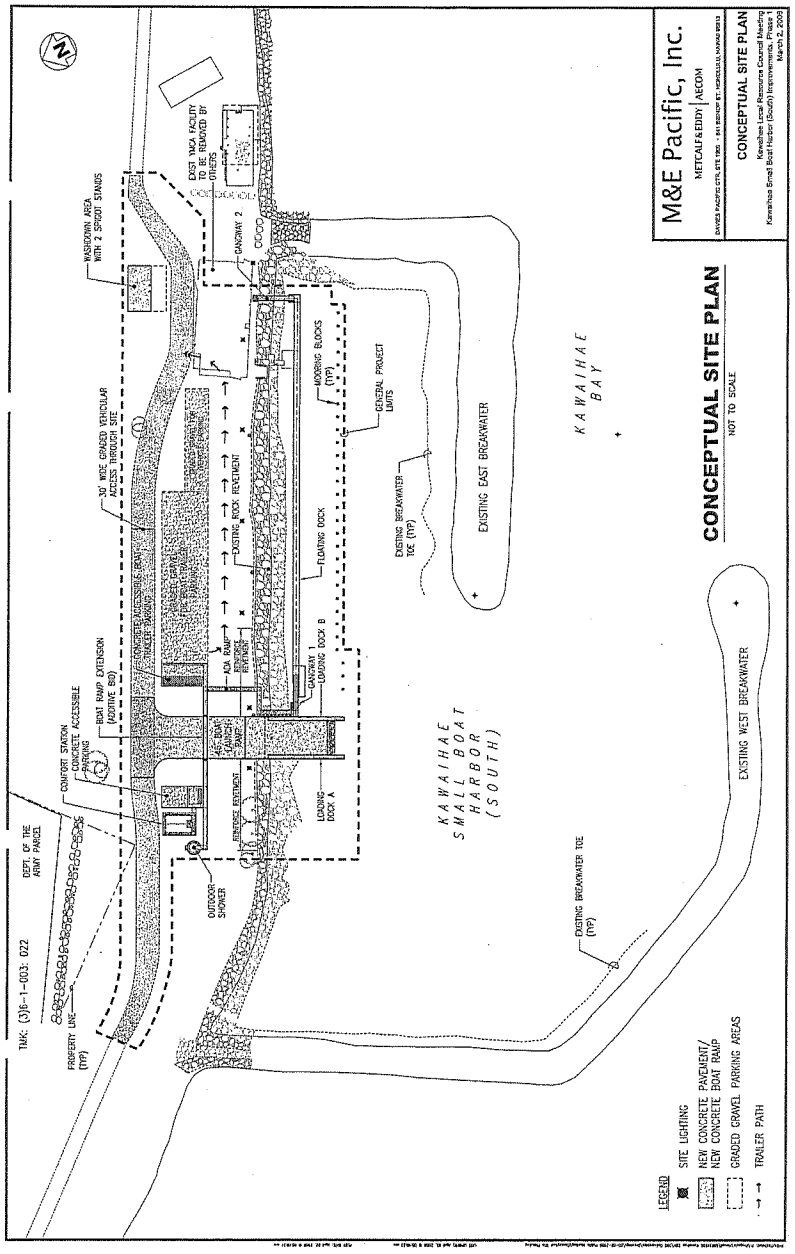
Sincerely,

M&E PACIFIC, INC.

Jamie T. Hikiji
Project Engineer

Enclosures: Conceptual Site Plan Sketch

cc: Ms. Valerie Suzuki, Dept. of Land and Natural Resources, Engineering Division
Project File



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October 11, 2007

Ms. Donna Wong, Executive Director
Hawaii's Thousand Friends
25 Maluniu Avenue
Suite 102#282
Kailua, Hawai'i 96734

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Ms. Wong,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your organization in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the Hawaii's Thousand Friends did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

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841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
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October 11, 2007

Ms. Kiersten Faulkner, Executive Director
Hawai'i Historic Foundation
680 Iwilei Road, Suite 690
Honolulu, HI 96817

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Ms. Faulkner,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your organization in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the Hawai'i Historic Foundation did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

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841 Bishop Street, Suite 1900
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October 11, 2007

Mr. Edward Halealoha Ayau
Hui Malama I Na Kupuna 'O Hawai'i Nei
P.O. Box 190
Haleiwa, Hawai'i 96712

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Mr. Ayau,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your organization in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the Hui Malama I Na Kupuna 'O Hawai'i Nei did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

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October 11, 2007

Mr. Doug Carr, President
Kawaihae Boating Association
P.O. Box 44652
Kamuela, HI 96743

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Mr. Carr,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your organization in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that Waimea-Kawaihae Community Association did not have comments or objections to the project at that time. Comments received at the September 9, 2007 Public Meeting were incorporated into the Draft Environmental Assessment (DEA). The research and consultation performed for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

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October 11, 2007

Director
Kohala Trollers Club
P.O. Box 1597
Kamuela, HI 96743

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Director,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your organization in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that the Kohala Trollers Club did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

October 11, 2007

Mr. Jeff Mikulina, Director
The Nature Conservancy
923 Nuuanu Avenue
Honolulu, Hawai'i 96817

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Mr. Mikulina,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your organization in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that The Nature Conservancy did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

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Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

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October 11, 2007

Kathy Whitmire, President
The Outdoor Circle
1314 South King Street, Suite 306
Honolulu, Hawai'i 96814

Subject: Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Ms. Whitmire,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

A request for a pre-assessment review of the proposed project was submitted to your organization in July 2007. Comments to the project were not received within the stated 30-day window; therefore, it was assumed that The Outdoor Circle did not have comments or objections to the project at that time. The Draft Environmental Assessment (DEA) has since been completed, and research and consultation for the DEA have supported our determination that there will be no adverse impacts to the environmental or cultural resources in the project area. DLNR has issued a draft Finding of No Significant Impact (FONSI) for the proposed project.

The DEA is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. The report will be available for review at the offices of OEQC and DLNR-DOBOR, as well as the Bond Memorial Public Library in Kapa'au, Hawai'i. Please contact us if you would like to have a copy of the DEA.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mail should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

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October 11, 2007

Mr. Bob Simms, Director
Pua Ka 'Ilima O Kawaihae Cultural Surf Park, Inc.
P.O. Box 1725
Kamuela, Hawai'i 96743-1725

Subject: Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Response to Pre-Consultation Letter

Dear Mr. Simms,

Thank you for your review and comment to our pre-consultation letter for the subject project. We have reviewed the comments listed in your July 20, 2007 letter and would like to offer the following responses:

1. Comment: We are in favor of the improvements shown on the schematic plan. A comfort station is sorely needed and we urge you to construct it in Phase I, if possible.

   Response: The comfort station is planned to be construction in Phase 1.

2. Comment: As we understand past master plans for this area, long term access to our surf park / breakwater area will be generally aligned along the route of the current unpaved road running in a loop from Kawaihae Road, past Pelekane, and past the existing small boat harbor basin, to the surf park area. Please preserve this through access in your plans (some realignment may be necessary or desirable). Some day access from the LST ramp side will likely become unavailable.

   Response: The proposed boat launch ramp will interfere with the alignment of the current unpaved vehicle access road. Therefore, the vehicle access will be realigned to direct vehicles behind the parking and comfort station area. The realignment will remove major vehicular traffic from the main pedestrian pathways while providing access to the planned SBH facilities. The proposed vehicle access will be graded and unpaved.

The comments received have been incorporated into the Draft Environmental Assessment (DEA), which is scheduled to be published by the State of Hawai'i Office of Environmental Quality Control (OEQC) newsletter *The Environmental Notice*, on October 23, 2007. A copy of the DEA is enclosed for your review and comment.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mailings should be sent to either of the following two addresses:
Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosure: Draft Engineering Assessment
cc: Project File

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900
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October 11, 2007

Administration
University of Hawai'i at Manoa
Department of Oceanography
Marines Sciences Building
1000 Pope Road, Room 205
Honolulu, Hawai'i 96822

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Administrator,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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Sincerely,

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Martin Nakasone
Engineering Manager

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October 11, 2007

John T. Harrison, Ph.D., Environmental Coordinator
University of Hawai'i at Manoa
Environmental Center
2500 Dole Street, Krauss Annex 19
Honolulu, Hawai'i 96822

Subject: **Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1**
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Dr. Harrison,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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Engineering Manager

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T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

October 11, 2007

Director
University of Hawai'i at Manoa
Water Resources Research Center
Holmes Hall Room 283
2540 Dole Street
Honolulu, Hawai'i 96822

Subject: Proposed Kawaihae Small Boat Harbor (South) Improvements, Phase 1
Draft Environmental Assessment
TMK: (3) 6-1-003: Por. 026

Dear Director,

The State of Hawaii Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific has been contracted to prepare an Environmental Assessment (EA) for the first phase of the harbor improvements. The project site is located at TMK (3)6-1-003: Por. 026.

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Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

METCALF & EDDY

M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

October 29, 2007

Librarian
Thelma Parker Memorial Public & School Library
67-1209 Mamalahoa Highway
Kamuela, Hawai'i 96743-8429

Subject: Draft Environmental Assessment for the Kawaihae Small Boat Harbor (South) Improvements, Phase 1, Kawaihae, Hawai'i

Dear Librarian,

The State of Hawai'i Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DOBOR) is proposing to improve a portion of the Kawaihae Small Boat Harbor (South), hereinafter referred to as Kawaihae SBH, in the South Kohala District on the Island of Hawai'i. M&E Pacific, Inc. has been contracted to prepare an Environmental Assessment (EA) for Phase 1 of the harbor improvements. Attached, please find a copy of the Draft Environmental Assessment, which was published in the *Environmental Notice* on October 23, 2007. Please place the Draft EA on file for public viewing.

Should you have any questions or comments, please contact either Ms. Jamie Hikiji or myself via postal mail, electronic mail, or facsimile. Electronic mailings should be sent to either of the following two addresses:

Jamie.Hikiji@m-e.aecom.com
Martin.Nakasone@m-e.aecom.com

Thank very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosure: Draft Environmental Assessment

cc: Project File

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ANNOTATED RESPONSES TO COMMENTS RECEIVED
(PRE-CONSULTATION & DRAFT EA)

FEDERAL

United States Army Corps of Engineers, Civil Works Technical Branch, Engineering & Construction Division	
Response Letter dated 8/13/07	
Contact:	Mr. James L. Bersson, P.E., Deputy District Engineer for Programs and Project Management
Address:	Pacific Ocean Division
	Building 230
	Fort Shafter, HI 96858-5440
Phone:	(808) 438-8874

No.	Comments	Response
1.	The USACE is responsible for maintenance of the existing breakwater structures and to maintain the authorized depths within the Federal project limits within the harbor including the entrance channel and turning basin areas.	*Noted.*
2.	The USACE requires a permanent maintenance easement ROW and access to the root of both breakwater structures should either structure require maintenance in the future.	*Noted. A maintenance easement will be provided to the east breakwater structure. Access to the west breakwater will remain unrestricted.*
3.	Easement should remain clear of any permanent obstructions to allow access from Queen Kaahumanu Highway to the breakwaters.	*See response to item 2.*
4.	If the construction activities will disturb one or more acres of ground surface, the proponent should seek coverage under the State's General Permit for Stormwater Discharges Associated with Construction Activities.	*Noted. An application for an NPDES NOI-C permit will be submitted with this project.*
5.	According to the current State Water Quality Standards Maps, Kawaihae is located within Class A Marine waters.	*Noted.*
6.	Kawaihae Harbor is listed as an impaired water body for turbidity according to the State's 2004 303d Report. Consultation with the State Clean Water Branch is suggested for clarification on how this would impact the NPDES permit.	*Noted. Consultant will apply for all applicable construction permits.*
7.	The current General Permit for Stormwater Discharges Associated with Construction Activities expires on 11/6/07.	*Noted. The NPDES NOI-C application will be submitted after November 2007.*
8.	It is suggested that the County of Hawaiʻi Planning Office be contacted to determine if a SMA permit is needed.	*A pre-consultation letter was sent to COH Planning. They in turn replied that a SMA permit will be needed for activities mauka of the shoreline.*

FEDERAL

United States Army Corps of Engineers, Regulatory Branch - Response letter dated 8/23/07		
Contact:	Mr. George P. Young, P.E., Chief	
Address:	Pacific Ocean Division	
	Building 230	
	Fort Shafter, HI 96858-5440	
Phone:	(808) 438-7701 - Mr. Farley Watanabe	
Fax:	(808) 438-4060	
E-mail:	Farley.K.Watanabe@poh01.usace.army.mil	
No.	**Comments**	**Response**
1.	The dEA should indicate those activities which will be over, in and under waters of the U.S.	*Complied. A description of the activities was included in the dEA.*
2.	The dEA should describe the project activities which have the potential to result in the discharge of dredged or fill material into waters of the U.S.	*Complied. A description of the activities was included in the dEA.*
3.	The dEA should address whether aids to navigation are part of, or excluded from the proposed project. The placing of fixed and floating aids to navigation in a navigable water of the U.S. as well as floating docks and boat ramps are within the purview of Section 10 of the Rivers and Harbors Act of 1899. In particular, these aids are of particular interest to the U.S. Coast Guard because of its control over the marking, lighting and standardization of such navigable aids.	*Noted. Navigations aids will not be included in this project. A statement was added to the dEA.*
4.	The findings of the dEA should state in appropriate sections that there is, or is no potential for waters of the U.S. to be impacted by construction of project structures and associated ground disturbing activities within the proposed development area.	*Complied. Statement and/or discussion of the potential impact to the State and Federal waters included in the dEA. As part of the permitting process, all DOH and COE water quality construction permits will be applied for and obtained prior to any construction activities.*
5.	Upon receipt of the Final EA, it may be determined whether a Dept. of Army (DA) permit for Section 10 activities of the Rivers and Harbors Act and Section 404 activities of the Clean Water Act may or may not be required.	*Noted.*

United States Coast Guard, 14th C.G. District - Letter Response dated 8/9/2007		
Contact:	Mr. Patrick M. McMillin, Chief, Resource and Performance Management Commander	
Address:	300 Ala Moana Boulevard, Suite 9108	
	Honolulu, HI 96850	
Phone:	(808) 541-2268 - Ms. Cherrie Cervantes	
No.	**Comments**	**Response**
1.	The Coast Guard has no additional comments at this time.	*Noted.*

FEDERAL

United States Fish & Wildlife Service, Pacific Region		
Contact:	Mr. Patrick Leonard, Field Supervisor	
Address:	U.S. Fish & Wildlife Service, Pacific Region	
	Pacific Islands Fish & Wildlife Service	
	300 Ala Moana Boulevard, #3-122	
	Box 50088	
	Honolulu, HI 96850	
No.	**Comments**	**Response**
1.	The National Marine Fisheries Services has regulatory authority under the Endangered Species Act of 1973, as amended [16 U.S.C. 1531-1544] for the humpback whale and for sea turtles that are in the ocean and not hauled out or nesting on the beach.	*Noted. A request for consultation letter was sent to The National Marine Fisheries Service.*
2.	Documentation in our files indicates that the federally threatened Newell's shearwater (*Puffinus auricularis newelli*) and the federally endangered Hawaiian petrel (*Pterodroma phaeopygia sandwichensis*) are known to occur in the vicinity of the action area.	*Noted, and incorporated into the EA.*
3.	Several species which are not listed under the Endangered Species Act but which are protected under the Migratory Bird Treaty Act [16 U.S.C. 703-712] may also transit the area. Bright lights can disorient night flying seabirds, causing them to land on the ground where they are vulnerable to vehicle collisions and non-native predators. To minimize project impacts to these birds, we recommend that all outdoor lighting associated with the project be shielded downward so that the bulb is not visible, at bulb height, from the side.	*Noted, and incorporated into the EA.*
4.	We are concerned that the proposed action may affect listed seabirds protected under the Endangered Species Act and/or the Migratory Bird Treaty Act. If lighting associated with the improvements to the small boat harbor is down-shielded and lights use the shortest poles and lowest wattage possible and do not extend above the height of existing vegetation, this will minimize the potential for disorienting listed seabirds traveling to or from their montane nesting areas and minimize collisions of listed seabirds with light poles.	*Complied. The recommendations listed were included in the EA, and will be incorporated into the facility design.*

STATE OF HAWAII

Department of Business Economic Development and Tourism, Office of Planning		
E-mail response dated 7/16/07		
Contact:	Mr. Theodore Liu, Director	
Address:	P.O. Box 2359	
	Honolulu, Hawaii 96804	
E-mail:	Dtom@dbedt.hawaii.gov, Douglas Tom, Program Manager, CZM	
No.	**Comments**	**Response**
1.	In general DBEDT no longer reviews and comments on EAs or EIS'. Under the CZM concept, the functional agencies are to have that responsibility. However, we randomly review submissions. In addition to compliance with Chapter 205A objectives and policies, we examine documents to determine how well they relate the projects to the Ocean Resources Management Plan. A copy of this plan can be downloaded from our CZM website (www.hawaii.gov/dbedt/czm/)	*Noted.*

Department of Hawaiian Home Lands (DHHL) - E-mail response dated 7/16/07		
Contact:	Mr. Ken Toguchi, Information & Community Relations, Information Specialist	
Address:	1099 Alakea Street, Suite 2000	
	Honolulu, Hawaiʻi 96813	
Phone:	(808) 586-3842; (808) 586-3836 Ms. Ann Yonamine, Planning Office Secretary	
Fax:	(808) 586-3843	
E-mail:	Ken.h.toguchi@hawaii.gov	
No.	**Comments**	**Response**
1.	The packet has been forwarded to the Planning Office for review and comment.	*Noted.*

Department of Health - Response dated 8/8/07		
Contact:	Mr. Newton Inouye, Acting District Environmental Health Program Chief	
Address:	P.O. Box 916	
	Hilo, Hawaiʻi 96721-0916	
Phone:	(808) 586-4309 (Mr. Alec Wong, Sup. Engineering Section, CWB)	
No.	**Comments**	**Response**
1.	Army Corps of Engineers should be contacted with regards to a Section 401 Water Quality Certification.	*Noted.*
2.	The Director of Health may require the submittal of an individual permit application or a NOI for general permit coverage authorized under the NPDES.	*Noted. All applicable construction and water quality permits will be applied for and obtained for this project.*
3.	The applicant for an NPDES permit is required to either submit a copy of the new NOI or NPDES permit application to SHPD or demonstrate to the satisfaction of the DOH that the project, activity, or site covered by the NOI or application has been or is being reviewed by SHPD. If applicable, please submit a copy of the required for review by SHPD or SHPD's determination letter for the project.	*Noted. See response to Item 2. SHPD will be consulted.*
4.	Any discharges related to project construction or operation activities, with or without a Section 401 WQC or NPDES permit coverage shall comply with the applicable State Water Quality Standards.	*Noted. This project will comply with all regulations regarding water quality requirements.*
5.	Wastewater Branch found no wastewater/environmental health concerns with regulatory implications in the submittal.	*Noted.*
6.	The use of individual wastewater systems is allowed. The type and number of individual wastewater systems to be used on each lot will be determined by the wastewater rules in effect at the time of the building permit application.	*Noted.*

STATE OF HAWAII

Dept. of Land and Natural Resources, Office of Conservation and Coastal Lands		
Letter response dated 8/16/07		
Contact:	Mr. Sammuel Lemmo, Administrator	
Address:	P.O. Box 621	
	Honolulu, HI 96809	
Phone:	(808) 587-0380 - Ms. Dawn Hegger	
No.	**Comments**	**Response**
1.	The work will occur in the State Land Use (SLU) Conservation District, Resource subzone. The site is currently managed by the DLNR, DBOR and is considered a non-conforming use. The proposed elements of the project are considered routine repair and maintenance for a use of which no permit is required. The project is minor in scope and within the scope of Kawaihae Small Boat Harbor operations and maintenance.	*Noted.*

Department of Transportation		
Letter response dated 8/14/07		
Contact:	Mr. Barry Fukunaga, Director	
Address:	869 Punchbowl Street	
	Honolulu, Hawai‘i 96813-5097	
No.	**Comments**	**Response**
1.	Project plans for the South Small Boat facility will need advance review and coordination with both our Harbors Division and Highways Division.	*Noted.*
2.	Boat traffic and circulation will need to be addressed in regards to necessary safety factors associated with the mix of commercial vessels and small boats using the Kawaihae Harbor complex. Boating activities and Harbor operations on the harbor lands should also be discussed.	*Installation of the proposed facilities will remove the existing light-draft traffic from the Deep-draft harbor. The SBH improvements will result in a safer environment for both commercial and light-draft vessels. Only light-draft commercial vessels (such as smaller charter boats) will utilize the SBH.*
3.	Ingress and egress at and to/from the fronting State highway to the South boat facility will need to be addressed for traffic purposes.	*The existing ingress and egress to/from the State Highway is not anticipated to be greatly affected by the proposed project. The anticipated users of the improved SBH are those who currently utilize the Deep-draft harbor to launch their vessels. Increased traffic is not anticipated due to this project. A discussion of the traffic impacts is included in the EA.*
4.	Your firm and the Boating & Ocean Recreation staff of the Dept. of Land & Natural Resources (DBOR-DLNR), should consult with the Hawai‘i District Offices and Planning Branches of our respective Harbors and Highways Divisions, and when the EA is completed, provide copies to both of the district and planning staff for their review and comments.	*Noted.*
5.	For administrative departmental coordination purposes, a copy of the environmental report should also be transmitted to our Statewide Transportation Planning Office.	*Noted. A copy will be provided as requested.*

STATE OF HAWAII

Comment Letter dated 11/30/2007		
1.	This an interim reply letter which is provided as a follow-up to verbal comments provided by DOT staff.	*Noted.*
2.	As discussed, the various DOT offices did not receive copies of the Draft EA as we had requested in the early consultation, thus the delay in distribution of the Draft EA does not allow for comprehensive review of the document. DOT respectfully requests a three-week extension of the response deadline.	*Letter sent 12/7/2007 (resent 12/26/2007) from DLNR (Laura Thielen) to DOT (Brennon Morioka) acknowledging request for three-week extension. New deadline: Friday, December 14, 2007.*
3.	DOT continues to recommend that the Harbors and Highways Division's Hawaii District Offices be consulted to ascertain any operational issues.	*Noted. Will send FEA to District Offices*
4.	We further request that these coordinating efforts and our forthcoming comments be documented in the final EA.	*Noted*
Comment Letter dated 12/21/07		
1.	The DEA states on page 17 under Project History and Description, "The Kawaihae Deep-draft Harbor was constructed in 1959 without a light-draft component…In 1969, the small boat harbor was constructed adjacent to the deep-draft harbor for light draft vessels...in July 1998 the west breakwater extension and east revetted mole with connecting breakwater was transferred from DOT-Harbors to DLNR-DOBOR." - The stated transfer of the offshore improvements is incorrect. Offshore improvements (breakwaters, revetment, dredging) constructed by the USACE remains their property to be maintained through the life of the project.	*Noted, description revised for FEA.*
2.	Figure 3-3 of the DEA, Existing Project Shore Side Site, delineates the General Project Limits that include some lands and offshore water area. The Shore side boundary between DOT and DLNR should be identified as conceptual as the property line is as yet undefined. Land surveys and amended Executive Orders will be necessary for the land transfer.	*Revised figure. Callout property lines and TMKs.*
3.	As stated on page 27 of the DEA under Technical, "…The DOT-Harbors is considering the transferal of ownership of a portion of the land to DLNR-DOBOR…This land transfer is currently under discussion with DOT-Harbor and DLNR-DOBOR, and has not been finalized at this time."	*Noted/revised*
	a. DOT-Harbors proposes to transfer a 10-acre area to DLNR-DOBOR. DLNR-DOBOR desires a larger area and is being asked to justify the additional acreage. Land surveys and amended Executive Orders will be necessary for the land transfer.	*Noted/revised*
	b. The configuration of a dedicated access roadway from the project to Akoni Pule Highway is still being negotiated between DOT-Harbors and DLNR-DOBOR. DLNR-DOBOR should also be coordinating with DOT-Highways for their input regarding the location of the new driveway access to Akoni Pule Highway. Pending the final determination of the roadway configuration, all utility connections for wastewater, water and electricity should be constructed along the new roadway and independent of the DOT-	*Noted. DLNR will coordinate with DOT on configuration of dedicated access roadway in a future phase.*
4.	As stated on page 27 of the DEA under Traffic, "The primary vehicular access to the Kawaihae SBH (South) is off of Akoni Pule Highway...through a secured gate at the entrance of the Port of Kawaihae...A secondary vehicular entrance is...closed due to Maritime Security (MARSEC)."	
	a. DOT-Harbors is concerned with the growing commercial vehicle traffic and the development of new recreational facilities, which will share the same internal roadway. DLNR-DOBOR should coordinate with DOT-Highways regarding the location of the new driveway access to Akoni Pule Highway. In addition, DOT-Harbors requests that security fencing, 8-feet high with three strands of barbed wire, be provided to separate the recreational area and traffic from commercial harbor operations.	*Noted. DLNR will coordinate with DOT-Highways regarding the access location, and will provide security fencing as requested.*

STATE OF HAWAII

Comment Letter dated 12/21/07 (Cont'd)		
	b. Throughout the interim period before the new small boat harbor access road is constructed, DLNR-DOBOR must coordinate with DOT-Harbors on their use of the existing secured gate to Kawaihae Harbor for access to the subject project. DLNR-DOBOR must also keep DOT-Highways updated on their plans to develop the new driveway access to Akoni Pule Highway.	*Noted*

Department of Transportation - Harbors Division		
Letter response dated 10/25/07		
Contact:	Mr. Davis K. Yogi, Harbors Administrator	
Address:	79 South Nimitz Highway	
	Honolulu, Hawai‘i 96813-4898	
No.	**Comments**	**Response**
1.	DOT-Harbors has been in discussions with Mr. Ed Underwood of the DOBOR on the development of this area. He is aware of the issues with development of this area.	*Noted.*
2.	The response letter dated 8/14/07 from Mr. Barry Fukunaga, Director of Transportation addresses their concerns and is representative of the DOT.	*Noted.*
3.	Comments to the DEA will be provided shortly.	*Noted.*

Hawai‘i Biodiversity & Mapping Program - E-mail response dated 6/5/07		
Contact:	Mr. Roy Kam, Database Manager	
Address:	University of Hawai‘i at Manoa	University of Hawai‘i at Manoa
(Mailing)	Center for Conservation Research and Training	Biomedical and Sciences Building
(Office)	3050 Maile Way, Gilmore Hall #406	1960 East West Road, Court B Room 203
	Honolulu, Hawai‘i 96822	Honolulu, Hawai‘i 96822
Phone:	(808) 956-8094	
E-mail:	rkam@hawaii.edu	
No.	**Comments**	**Response**
1.	It appears that no rare species or natural communities have been recorded in your project area.	*Noted.*
2.	You may want to note that a High Salinity Anchialine Pool has been recorded nearby. Most likely the location is well beyond your project site, but Achianline Pools are sensitive sites and are habitat for the Opaeula (Hawaiian red shrimp) a species of concern (tagged by USFWS). But according to our database, more research is needed to determine if there are any shrimps in that pool and the extent.	*Noted.*

COUNTY OF HAWAII

County of Hawaii, Department of Environmental Management - Response Letter dated 10/21/05		
Contact:	Ms. Bobby Jean Leithead-Todd, Director	
Address:	25 Aupuni Street, Room 210	
	Hilo, Hawaii 96720	
Phone:	(808) 961-8083	
No.	**Comments**	**Response**
1.	DEM has no comments to offer at this time.	*Noted.*

County of Hawaii, Department of Water Supply - Response Letter dated 11/20/07		
Contact:	Mr. Milton Pavao, P.E., Manager	
Address:	345 Kekuanaoa Street, Suite 20	
	Hilo, Hawaii 96720	
Phone:	(808) 961-8070 x255 - Finn McCall, Water Resources and Planning Branch	
No.	**Comments**	**Response**
1.	There is an existing 12-inch waterline within Akoni Pule Highway that serves the Kawaihae Harbor. Please be informated that the Department's water system facilities cannot support the estimated 0.02 MGD demand for the proposed improvements at this time. Extensive improvements and additions must be constructed to support the additional demand, which may include, but not be limited to, source, storage, transmission, and distribution facilities. Currently, funding is not available from the Department and no schedule is set for such improvements.	*Noted. Revised water usage calculations provided to DWS.*
2.	In order to ascertain the water needs of the project, the Department recommends that a professional engineer licensed in the State of Hawai'i submit estimated maximum daily usage calculations to the Department for review and comment.	*Revised water usage calculations provided to DWS.*
3.	Any water meter(s) serving the proposed project will reuqire a reduced pressure type backflow prevention assembly installed within five (5) feet of the meter on the owner's property, if the existing service(s) do not already have one installed. The installation of all backflow prevention assemblies must be inspected and approved by the Department before water service can be	*Noted.*
4.	Please be informed that the existing 12-inch waterline within Akoni Pule Highway has a maximum capacity of approximately 3,522 gallons per minute. We suggest that the Fire Department be consulted if additional capacity is needed at the site for fire protection.	*Noted.*
Comment Letter dated 3/17/08		
1.	Based on the information provided, the estimated maximum daily water usage for this project is 2,685 gpd, which is equivalent to 5 units of water at 600 gpd per unit.	*Noted*
2.	Please resubmit the water usage calculations with the signature and stamp of the appropriate professional engineer licensed in the State of Hawaii, as required per our Rules and Regulations.	*Calculations resubmitted with 4/1/2008 response letter.*
3.	As indicated on page 35 of the DEA, please include a map showing the location and meter number of the existing 2-inch meter that was proposed to serve the project. The Department must evaluate the historical water usage through that meter to determine if the meter size is adequate to accommodate the estimated additional flow.	*Map and meter number were submitted with 4/1/2008 response letter.*

COUNTY OF HAWAII

Comment Letter dated 3/17/08 (Cont'd)		
4.	If the existing 2-inch meter can accommodated the additional flow and there was a sufficient amount of water allocated to that meter, water service may be granted.	*Noted*
5.	If the existing 2-in meter is to be utilized, a reduced pressure type backflow prevention assembly must be installed within 5 feet of the meter, unless there is an existing backflow prevention assembly installed.	*Noted*
Comment Letter dated 5/2/2008		
1.	Based on the information provided, the estimated maximum daily water usage for this project is 2,685 gpd, which is equivalent to 5 units of water at 600 gpd per unit.	*Noted*
2.	The existing 2" meter that will servce the subject project is Account No. 830-32140, which is currently under the name of the DLNR. We hace also confirmed that there is an existing backflow pretecntion assembly connected to that meter, and therefore, the installation of a new backflow prevention device will not be necessary.	*Noted.*
3.	Prior to granting water service for the proposed project, remittance of the prevailing facilities charge, which is subject to change, is required. Based on the 5 additional units of water needed, the prevailing facilities charge due is $27,500.00 at $5,500.00/unit.	*Noted.*

COUNTY OF HAWAII

County of Hawaii, Mayor's Office - Comment Letter dated 7/23/07		
Contact:	Mayor Harry Kim	
Address:	25 Aupuni Street, Room 215	
	Hilo, Hawaii 96720	
Phone:	(808) 961-8211	
No.	**Comments**	**Response**
1.	**Hazards:** Kawaihae Harbor area has experienced disruptions and damages due to the natural hazards of surf, earthquake and wind. The plans should take these hazards into account in the specific design to mitigate as best as possible these issues. It is emphasized here that special attention should be given to the impact of surf hazards caused by tropical storms and hurricanes. The floating dock concept is obviously a well-tested one, but historical data will show that the present Kawaihae Harbor has suffered many occurrences of light to severe damage caused by	*The boating facilities will be designed with consideration of the hazards typically experienced at Kawaihae Harbor.*
2.	**Wind:** A special emphasis is made for the hazard of wind, as generally for the area this is not particularly emphasized. Whether it be in the design, construction phase, or upon completion, there needs to be awareness that winds have created danger and havoc to the area. The area for the proposed project is particularly susceptible to very strong winds, at times near hurricane levels. It is emphasized that these damaging and dangerous winds occur numerous times during the course of a relatively short period, and that the winds are caused by down drafts and not by approaching storms. It is requested that design and construction requirements identify these winds so as to mitigate the impact.	*The proposed improvements will be designed based upon Sea Engineering's design wind speed recommendation of 60 mph, per their Phase I Berthing and Facilities Plan Report (1998).*
3.	**Fishermen:** The area of the project is popular for local shore fishermen, mainly due to its relative isolation from the rest of the harbor. It is hoped the design will accommodate fishermen.	*The proposed improvements will ensure that the SBH may continue to be used by the local shore fisherman.*
4.	**Recreation:** The small boat recreation harbor facilities for this island also seem to serve as a recreational place for especially children. This is a serious problem for this island's small recreational boat harbors such as the present Kawaihae ramp, as well as Pohoiki and Kailua. It is asked that this is taken into account in the design.	*Personal safety features will be incorporated into the design where feasible.*
5.	**Landscaping:** It is noticed that the proposed project does not particularly identify landscaping, but it is hoped that landscaping will also be part of the contract. If one visits Kawaihae Harbor today, you will note that the planting of coconut trees along the roadway was started by one individual many years ago. Landscaping of coconut trees or other foliage will not only add to the use and beauty of the area, but will also mitigate problems of wind or runoff.	*Landscaping is not a part of this phase, but will be completed during future phases of the project. The main focus of this project phase is to provide the boating community with useable hardscape features to allow the greatest number of boaters to utilize the SBH as possible, as quickly as possible. Therefore, funds for this project will be directed to construction of the main harbor features. Existing trees and vegetation will be kept in place, as feasible within the design.*

COUNTY OF HAWAII

County of Hawaii, Planning Department - Response Letter dated 8/13/07		
Contact:	Mr. Christopher J. Yuen, Planning Director	
Address:	Aupuni Center	
	101 Pauahi Street, Suite 3	
	Hilo, Hawaii 96720	
Phone:	(808) 961-8288 x257- Esther Imamura, Planning Dept.	
No.	**Comments**	**Response**
1.	According to the General Plan's Land Use Pattern Allocation Guide Map, the subject parcel is designated Open, Industrial and Medium Density Urban. The project area appears to be Open, which is characterized as "*Parks and other recreational areas, historic sites, and open shoreline areas."*	*Noted.*
2.	The State Land Use designation is Urban.	*Noted.*
3.	County zoning is General Industrial (MG-1a), Open (O) and Multiple Family Residential (RM-1.5). Yacht harbors and boating facilities are permitted used in the General Industrial district. Planning Commission approval of a Use Permit is required for a yacht harbor and boating facilities in the Open and the Multiple-Family Residential districts.	*Noted. Project area appears to be limited to MG-1a and Open, while adjacent to RM-1.5 as shown on Figure 5-7. A use permit will be obtained for this project.*
4.	The subject parcel is in the County's Special Management Area (SMA).	*Noted.*
5.	The proposed improvements mauka of the shoreline will require either a SMA Minor permit or a SMA (Major) Use permit.	*An SMA permit will be prepared and submitted for this project.*
6.	Depending on the type of improvements or activities within the 40' shoreline setback area, a Shoreline Setback Variance may be required.	*A SSV application will be submitted with this project.*
7.	All activities makai of the shoreline are outside the jurisdiction of the County.	*Noted.*
8.	Plan approval is required prior to the construction of any new structure.	*Noted.*
Comment Letter dated 10/30/07		
1.	Comment No. 1 of the October 11, 2007 letter referencing the General Plan designation stated the following: *"The project site appears to be limited to Open and General Industrial as shown on Figure 5-5 of the enclosed DEA…"* Figure 5-5 refers to the State Land Use Map. The County general Plan is Figure 5-6. The project site does not include the "General Industrial" designation.	*Noted. The reference was made in error, and should have indicated Figure 5-7, County of Hawai'i Zoning, which shows the Open and General Industrial COH zones.*
2.	Page 51, 5.4.1 Land Use Designations, Impacts and Mitigative Measures: In the Open (O) zoning, a "Use Permit" is required to establish the proposed use.	*Noted.*
3.	Page 57, Managing Development: The list of required permits should include the County of Hawai'i Use Permit.	*Use permit has been added to the permit list.*
4.	Page 57, Managing Development: This discussion on County permits should include the Shoreline Setback Variance and Plan Approval requirements.	*Complied.*
5.	Public Access: Continuous lateral shoreline access, pedestrian as well as vehicular, should be addressed separately from Recreational Resources (Page 55) and Beach Protection (Page 57). These two sections discuss access to the Cultural Surf Park, Pelekane Beach and Samuel M. Spencer Beach Park but does not comment on an alternate safe and continuous lateral access along the shoreline that would allow for pedestrians to traverse between these areas.	*Revised for FEA. Note that there currently is no pedesrian access along the shoreline between the Kawaihae Small Boat Harbor and the Samuel Spencer Beach Park.*

COUNTY OF HAWAII

No.	Comments	Response
	Further, the "Location Map" should be revised to denote this pathway. Finally, please clarify the sentence on Page 55, which states that "The proposed action is not anticipated to negatively affect the operation of or access to the surf park beyond the construction period." Again, if existing continuous lateral shoreline access will be temporarily disrupted, alternate safe and traversable vehicular and pedestrian access routes must be established.	*The existing unpaved roadway has been included on the Location Map. The proposed unpaved access is shown on Figure 3-5 Conceptual Site Plan.*

COMMUNITY

Pua Ka Ilima 'O Kawaihae Cultural Surf Park, Inc. - Response Letter dated 7/20/07		
Contact:	Mr. Billy Mitchell, President	
Address:	P.O. Box 1725	
	Kamuela, Hawai'i 96743	
No.	**Comments**	**Response**
1.	We are in favor of the improvements shown on the schematic plan. A comfort station is sorely needed and we urge you to construct it in Phase I, if possible.	*Noted. The comfort station is planned to be constructed in Phase 1.*
2.	As we understand past master plans for this area, long term access to our surf park / breakwater area will be generally aligned along the route of the current unpaved road running in a loop from Kawaihae Road, past Pelekane, and past the existing small boat harbor basin, to the surf park area. Please preserve this through access in your plans (some realignment may be necessary or desirable). Some day access from the LST ramp side will likely become unavailable.	*Noted. The proposed boat launch ramp will interfere with the alignment of the current unpaved vehicle access road. Therefore, the vehicle access path will be realigned to direct vehicles behind the parking and comfort station area. The proposed vehicle access will be graded and unpaved. The realignment will also remove vehicular traffic from the main pedestrian pathways while providing access to the planned small boat harbor facilities.*

Big Island Buyer's Brokers-High Country Traders 201 - Response Letter dated 3/3/2008		
Contact:	Mr. Bill Jardine	
Address:	65-1291 Kawaihae Road	
	Kamuela, Hawai'i 96743	
No.	**Comments**	**Response**
1.	The current design locates the trailer parking in an exceedingly difficult location for the drivers of those trucks and trailers. In its current location the design will require the drivers to reverse their truck/trailer rigs in at least a 180-degree arc in order to retrieve their boats at the boat ramp. This is very difficult for even an experienced driver to accomplish and can be very dangerous as well. The trailer parking needs instead to be located along the northern boundary of the property, where the 30' access road is currently designed. If the roadway and the trailer parking are reversed it will help immensely. It appears that the reason that the trailer parking was located so poorly was that the design team saw the need to meet ADA requirements in the chance that a disabled person wanted to launch a trailer boat at the facility. Perhaps allowing this but limiting the parking to one or two vehicles with trailers would suffice.	*The area between the trailer parking and the top of the existing rock revetment will be sufficiently graded to allow those with boat trailers to drive out of the parking area and around to meet the access road. The boat trailer parking and the boat launch ramp were configured to allow adequate space for WB-40 design vehicle (an intermediate semi-trailer) to make a 180-degree turn between the two areas.*
2.	You will create a failed project by allowing just two boat wash-down spigots for this project. Kawaihae small Boat Harbor, which is all ready over-crowded, features six (6) wash-down spigots, and even humble little Puako Small Boat harbor has four (4) spigots for this purpose. The creation of just two boat wash-down spigots for this much larger facility is a guaranty of failure for this project.	*The boat washdown area will have two (2) spigot stands; each stand will have two (2) hose bibbs to allow for a total of four (4) connections at a time. As requested by the community, two (2) additional spigot stands (with two [2] hose bibs at each stand) will be provided along the top of the rock revetment to allow for boat washdown at the floating dock, and one (1) spigot stand will be provided along the boat launch ramp. Please note that the proposed washdown area and spigot stands are part of the first phase of the harbor improvements. A full washdown area is planned to be installed during the future phases of hte overall harbor build-out.*
3.	My understanding is that the design team is working within the restrictions of utilizing the existing 2" water line and the projected demands of slip tenants for fresh water spigots. I note that there is a far greater number of slips as well as many more wash-down spigots utilizing an even smaller fresh water line at Honokohau Harbor today.	*A full washdown area will be provided with the full-harbor build-out in a future phase of the project.*

APPENDIX B

RECORD OF FLORA AND FAUNAL CONSULTATION

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122, Box 50088
Honolulu, Hawaii 96850

In Reply Refer To:
2007-TA-0227

AUG 13 2007

RECEIVED
AUG 14 2007
M & E PACIFIC, INC.

Mr. Martin Nakasone
Engineering Manager
Metcalf and Eddy AECOM
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

Subject: Technical Assistance Request for Proposed Kawaihae Small Boat Harbor Improvements, Island of Hawaii

Dear Mr. Nakasone:

Thank you for your letter dated July 11, 2007, requesting that the U.S. Fish and Wildlife Service (Service) review your determination that the Kawaihae small boat harbor improvement project [TMK (3) 6-1-003:026], on the island of Hawaii, will have no effect to Federally-listed species. The State of Hawaii, Department of Land and natural Resources, Division of Boating and Ocean Recreation is proposing to install light-draft boating facilities, including a fixed concrete boat ramp, a floating dock, a comfort station, potable water and wastewater systems, site lighting, an electrical system, fencing, and signs. You have determined, based on a December 1994 Environmental Assessment and your subsequent research, that the proposed project will have no effect to federally endangered Hawaiian hoary bat (*Lasirus cinereus semotus*), Hawaiian hawk (*Buteo solitarius*), threatened green sea turtle (*Chelonia mydas*) and endangered humpback whale (*Megaptera novaeangliae*). Your letter indicates that the Hawaiian hoary bat and Hawaiian hawk infrequently forage in the project area but that sea turtles are not found on land in the project area. Please note that the National Marine Fisheries Services, has regulatory authority under the Endangered Species Act of 1973, as amended [16 U.S.C. 1531-1544] for the humpback whale and for sea turtles that are in the ocean and not hauled out or nesting on the beach.

Documentation in our files indicates that the federally threatened Newell's shearwater (*Puffinus auricularis newelli*) and the federally endangered Hawaiian petrel (*Pterodroma phaeopygia sandwichensis*) are known to occur in the vicinity of the action area. Several species which are not listed under the Endangered Species Act but which are protected under the Migratory Bird

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Treaty Act [16 U.S.C. 703-712] may also transit the area. Bright lights can disorient night flying seabirds, causing them to land on the ground where they are vulnerable to vehicle collisions and non-native predators. To minimize project impacts to these birds, we recommend that all outdoor lighting associated with the project be shielded downward so that the bulb is not visible, at bulb height, from the side.

We disagree with your determination that the proposed project will not affect listed species in the vicinity of the action area. After reviewing information you provided and pertinent information in our files, we are concerned that the proposed action may affect listed seabirds protected under the Endangered Species Act and or the Migratory Bird Treaty Act. If lighting associated with the improvements to the small boat harbor is down-shielded and lights use the shortest poles and lowest wattage possible and do not extend above the height of existing vegetation, this will minimize the potential for disorienting listed seabirds traveling to or from their montane nesting areas and minimize collisions of listed seabirds with light poles.

We appreciate your efforts to conserve endangered species. If you have questions, please contact Aaron Nadig, Fish and Wildlife Biologist, Consultation and Technical Assistance Program (phone: 808-792-9466; fax: 808-792-9581).

Sincerely,

Patrick Leonard
Field Supervisor

Hikiji, Jamie

From: Roy Kam [rkam@hawaii.edu]
Sent: Tuesday, June 05, 2007 11:46 AM
To: Hikiji, Jamie
Subject: RE: Kawaihae Small Boat Harbor (South) Improvements - Request for Review
Attachments: m&epacifickawaihae.jpg

Jamie,

Attached is a jpeg map depicting the data from our database. It appears that no rare species or natural communities have been recorded in your project area. Although, you may want to note that a High Salinity Anchialine Pool has been recorded nearby (identified as a green dot). Most likely the location is well beyond your project site, but Achianline Pools are sensitive sites and are habitat for the Opaeula (Hawaiian red shrimp) a species of concern (tagged by USFWS). But according to our database, more research is needed to determine if there are any shrimps in that pool and the extant.

Roy Kam
Database Manager
Hawaii Biodiversity & Mapping Program
(Hawaii Natural Heritage Program)
University of Hawaii at Manoa
Ph: 808-956-8094
Fax: 808-956-8493

Mailing Address:
University of Hawaii at Manoa
Center for Conservation Research and Training
3050 Maile Way, Gilmore Hall #406
Honolulu, Hawaii 96822

Office Address:
University of Hawaii at Manoa
Biomedical and Sciences Building
1960 East West Road, Court B Room 203
Honolulu, Hawaii 96822

Notice
The Hawaii Biodiversity and Mapping Program (HBMP), Natural Diversity Database is dependent on the research and observations of many scientists and individuals. In most cases this information is not the result of comprehensive site-specific field surveys, and is not confirmed by the HBMP staff. Many areas in Hawaii have never been thoroughly surveyed, and new plants and animals are still being discovered. Database information should never be regarded as final statements or substituted for on-site surveys required for environmental assessments. Data provided by the Heritage Program do not represent a position taken by The Center for Conservation Research and Training or The Nature Conservancy of Hawaii. HBMP information is only for the intended use of the individual or organization who requested it. It may not be distributed in any way without the consent of the Hawaii Biodiversity and Mapping Program.

Please cite HBMP and primary sources in all documentation and reports.
Hawaii Biodiversity and Mapping Program, Center for Conservation Research and Training, University of Hawaii at Manoa
3050 Maile Way, Gilmore Hall Room 406, Honolulu, Hawaii 96822

From: Hikiji, Jamie [mailto:Jamie.Hikiji@m-e.aecom.com]
Sent: Tuesday, June 05, 2007 11:22 AM

To: Roy Kam
Subject: Kawaihae Small Boat Harbor (South) Improvements - Request for Review

Mr. Kam,

The State of Hawaii Department of Land and Natural Resources is proposing to improve a portion of the Kawaihae Small Boat Harbor (South) in the South Kohala District on the Island of Hawaii. M&E Pacific has been contracted to update the Environmental Assessment prepared for work previously done at the harbor.

The original EA was prepared in December 1994, for the construction of the existing east and west breakwaters shown on the schematic plan. Research done for that EA indicated that "there are no Federally listed endangered, threatened, candidate or proposed species of terrestrial plant or animals or their critical habitat within the project area." While the Hawaiian Hawk and Hawaiian Bat occasionally forage in the general harbor area, neither species nest, breed or roost in the area. Two rare marine species are common in the area, however; the humpback whale is seen in the area during "whale season" and green sea turtles are often near the small boat harbor breakwater. Although this is a feeding area for the turtles it "is not suitable for nesting or basking as there is no convenient access to the land and the land is unsuitable for nest building."

We are seeking your consultation on this project to identify any other threatened or endangered species within or in the vicinity of the project site. The affected area is located at TMK (3)6-1-003: Por. 026. A general location map, TMK map and schematic site plan are provided in the attached file for your information and review.

This project will include the design and construction of a boat ramp with ADA access, a floating dock with ADA accessible gangway, grading and drainage for an unpaved area of boat and trailer parking, a comfort station with individual wastewater system, potable overland waterline and electrical service to the comfort station and dock area, and other miscellaneous fencing, signage, grading and drainage as required.

We would like to request a listing of those endangered or threatened species that may be impacted by this project.

If there are any questions, please contact me at (808) 521-3051, fax (808) 524-0246 or e-mail Jamie.Hikiji@m-e.aecom.com.

Thank you,

Jamie Hikiji
M&E Pacific, Inc.
METCALF&EDDY | AECOM
Davies Pacific Center
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

808.521.3051 (Voice)
808.524.0246 (Fax)
Jamie.Hikiji@m-e.aecom.com

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1 Miles
N
COAST GUARD
RESERVATION
Kawaihae Light
Kawaihae
BM
Storage
Tanks
Light
Coral
Reef
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Cemetery
Light
Breakwater
Mailekini
Heiau
PUUKOHOLA HEIAU
NATIONAL HISTORICAL SITE
220
Spencer Beach
Ohaiula Beach
Waikui Beach
Kukui Point
Kaluhikaa Beach
Rare Species and Natural Communities
Kawaihae Harbor
Rare Species Location
Animal Vertebrate
Natural Community
Animal Invertebrate
Plant
Hawaii Natural Heritage Program, June 2007 1:12,000

APPENDIX C

***ENVIRONMENTAL IMPACT STATEMENT FOR DEVELOPMENT OF KAWAIHAE SMALL BOAT HARBOR*, DATED 1985**
(Appendices not included)

ENVIRONMENTAL IMPACT STATEMENT
FOR
DEVELOPMENT OF KAWAIHAE SMALL BOAT HARBOR
KAWAIHAE, HAWAII, HAWAII

Prepared by
HARBORS DIVISION, DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII

This statement was developed in accordance
with the Environmental Impact Statement Regulations,
State of Hawaii, and is submitted pursuant to
Chapter 343, Hawaii Revised Statutes

JAN 9 1985
Date

Chief, Harbors Division

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The onshore environment is presently sparsely vegetated with coconuts and beach naupaka. Much of the area is bare coral fill material.

Previous studies have not identified any known threatened or endangered species nor critical habitats within the project.

Recreational and commercial opportunities will be greatly enhanced by the project, including boating and related offshore fishing activities, shoreside fishing and passive recreation.

The project will provide temporary construction jobs and permanent operations and maintenance jobs at the completed harbor area. Also, the harbor's commercial activities will create permanent job opporunities. These jobs will enhance the short-term and long-term economic climate of the Kawaihae area and the island of Hawaii. The harbor will also attract additional users to the area, although the nature of the surrounding land developments is not likely to be significantly changed or accelerated because of the harbor.

1.3. ADVERSE IMPACTS OF THE PROJECT THAT CANNOT BE AVOIDED

The project will permanently alter a 33-acre area from a shallow sedimented reef and dredged basin area to a small boat harbor. Some marine habitats for individuals of a few species will be altered. Some minor degradation of water quality may occur. Noise, dust, and hydrocarbon emissions will be generated during construction and use of the harbor.

The onshore area, consisting essentially of dredged coral fill material, will be permanently altered with the implementation of development plan. Most of the area will be graded and paved or built upon with various facilities and structures. The remaining areas will be landscaped.

1.4. ALTERNATIVES

Alternatives to the proposed project would be to forego any further improvements and continue to use existing, inadequate and unsafe facilities; to site the harbor in other locations; or to alter the design configuration of the proposed facilities and features.

1. SUMMARY

1.1. DESCRIPTION OF ACTION

Construction of a small boat harbor consisting of a detached breakwater, revetted moles, interior mole, wave absorber, navigational channels, attendant onshore facilities including parking areas, administrative building, comcial areas, launching ramps, and berthing slips.

1.2. PROPOSED PROJECT - ENVIRONMENTAL IMPACT

The proposed harbor would further alter the existing condition of the 33-acre project site from a shallow sedimented, recently altered reef and dredged basin area to a permanent light-draft vessel harbor complex consisting of revetted land areas, channels, turning basin, and berthing sanctuaries.

The oceanographic regime of the new harbor may substantially differ from the existing conditions. The natural bathymetry of the project area will be permanently altered by filling and dredging operations. Also, the completed harbor structures are intended to slow and deflect existing sluggish wind-generated currents, and provide shelter to small boats from the wave and surge regimes of the area. Turbid water will continue to be trapped on the south side of the partially completed breakwater of the proposed harbor, and an increase in turbidity may occur on the south side of the completed small boat harbor. This turbidity can be greatly reduced by controlling wind-borne sedimentation and constructing sediment traps for major drainage ways. The harbor will be designed so that there will be no significant restriction of the already poor water circulation in the basin.

Noise and hydrocarbon emissions generated by construction equipment will be temporary, and impacts will be minor since the area is sparsely populated. Noise and hydrocarbon emissions will be generated by boats and vehicles utilizing the completed harbor.

Increased sedimentation on the harbor floor because of reduced wave action and project dredging and filling operations may result in the replacement of the already depauperate marine fauna by other organisms more tolerant of a sediment bottom. Complete harbor structures such as moles, breakwaters, etc., should serve as favorable habitats to many fish species, some corals, algae, and other invertebrates.

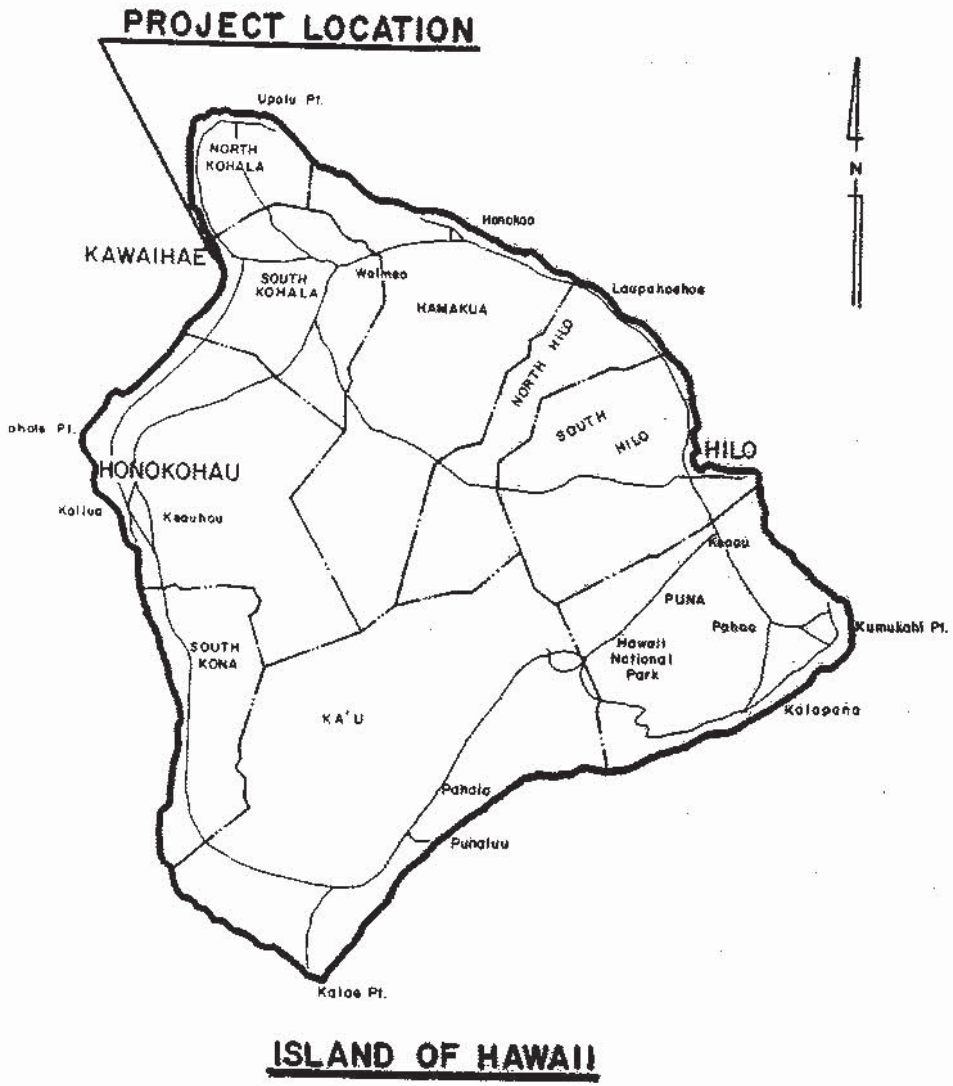


FIGURE 1

REGIONAL MAP

2. PROJECT DESCRIPTION

2.1. PROJECT GOALS AND OBJECTIVES

- Meet the existing and projected needs of local boaters in the region to the year 2030, consistent with social, environmental, economic and physical planning for the area.
- Provide safe, convenient and pleasant harbor facilities. Specifically, the facility's water areas should be navigable under moderate to heavy sea conditions, should provide a relatively quiet berthing area, and should be accessible to general small boat traffic.
- Broaden the recreational potential for the area. Facilities should provide berthing, shoreside and support facilities which enhance recreational boating and commercial fishing as well as passive recreation on site and should relate favorably to the adjacent proposed historic site.
- Enhance the visual and environmental quality of the site. The project should be responsive to terrestrial and marine environmental concerns. In addition, facilities and landscaping should be compatible with the surrounding site.
- Reduce conflicting traffic within existing Kawaihae harbor.
- Provide economic and social opportunities for local residents.

2.2. PROJECT LOCATION

A small boat harbor is proposed for construction at Kawaihae on the northwest coast of the County of Hawaii, State of Hawaii. The proposed site is adjacent to the existing deep-draft harbor in Kawaihae Bay (Figure 1).

This location is convenient to the majority of anticipated users and is accessible to existing highways and other infrastructure including power and domestic water. The landward area is currently owned by the State of Hawaii and is under the jurisdiction of the Hawaii State Department of Transportation, Harbors Division. The seaward portion, including the protective structures and entrance and access channels, will be maintained by the Corps of Engineers

after they have been developed jointly by the Corps and the State. The entire project area lies within the Shoreline Management Area of the County of Hawaii and is subject to County, State and Federal regulations.

2.3. PROJECT HISTORY

2.3.1. Previous Statements and Studies

Construction of a harbor for light-draft vessels at Kawaihae, Hawaii, was authorized by Section 301 of the River and Harbor Act of 18 October 1965, in accordance with recommendations of the Chief of Engineers contained in House Document No. 75, 89th Congress, 1st Session. This document also provided for modifications to the existing Kawaihae Deep-Draft Harbor. A General Design Memorandum was submitted in March 1968 for engineering and design for both the modification to the deep-draft harbor and construction of the authorized light-draft harbor within the deep-draft harbor basin. After approval of the document by the Chief of Engineers in June 1968, the State of Hawaii requested that the light-draft harbor be relocated from the authorized site within the deep-draft harbor to a site immediately south of the existing revetted fill area for the deep-draft harbor.

Subsequently, the relocated site was selected for a high-explosive row charge cratering research and development project. The results of this research, called Project Tugboat, were incorporated into the Kawaihae light-draft vessel project (Ref. 2).

As a result of the site relocation and the newly adopted National Environmental Policy Act of 1970, a draft Environmental Statement was prepared in December 1970, and a General Design Memorandum (Ref. 4) and Final Environmental Statement were prepared in August 1971 (Ref. 5). After the coordination and review phase, additional current and oceanographic studies were conducted in the area. An Environmental Assessment (EA) was prepared in October 1975 (Ref. 1) which evaluated the results of such studies as well as other comprehensive environmental, archaeological and hydrological studies conducted in the region after completion of the 1971 EA. A Draft Information Supplement to the Final Environmental Statement was prepared in June 1978 which integrated all previous data and additional data from studies subsequent to the EA (Ref. 6). This document utilizes relevant data from these previous studies, comments to the draft information supplement of 1978, and data from studies currently in progress.

2.3.2. Site Relocation

Based on extensive coordination between the Corps of Engineers and the State of Hawaii, the State requested that the authorized site for the light-draft harbor be moved outside the limits of the existing deep-draft harbor. This was recommended to allow for future expansion of shoreside facilities and permit the development of any proposed inter-island ferry terminal and movement of the existing barge terminal inside the deep-draft harbor where serious surge effects are absent. The relocated site provides considerable natural protection from waves due to the existing coral reef (Ref. 6).

2.3.3. Project Tugboat

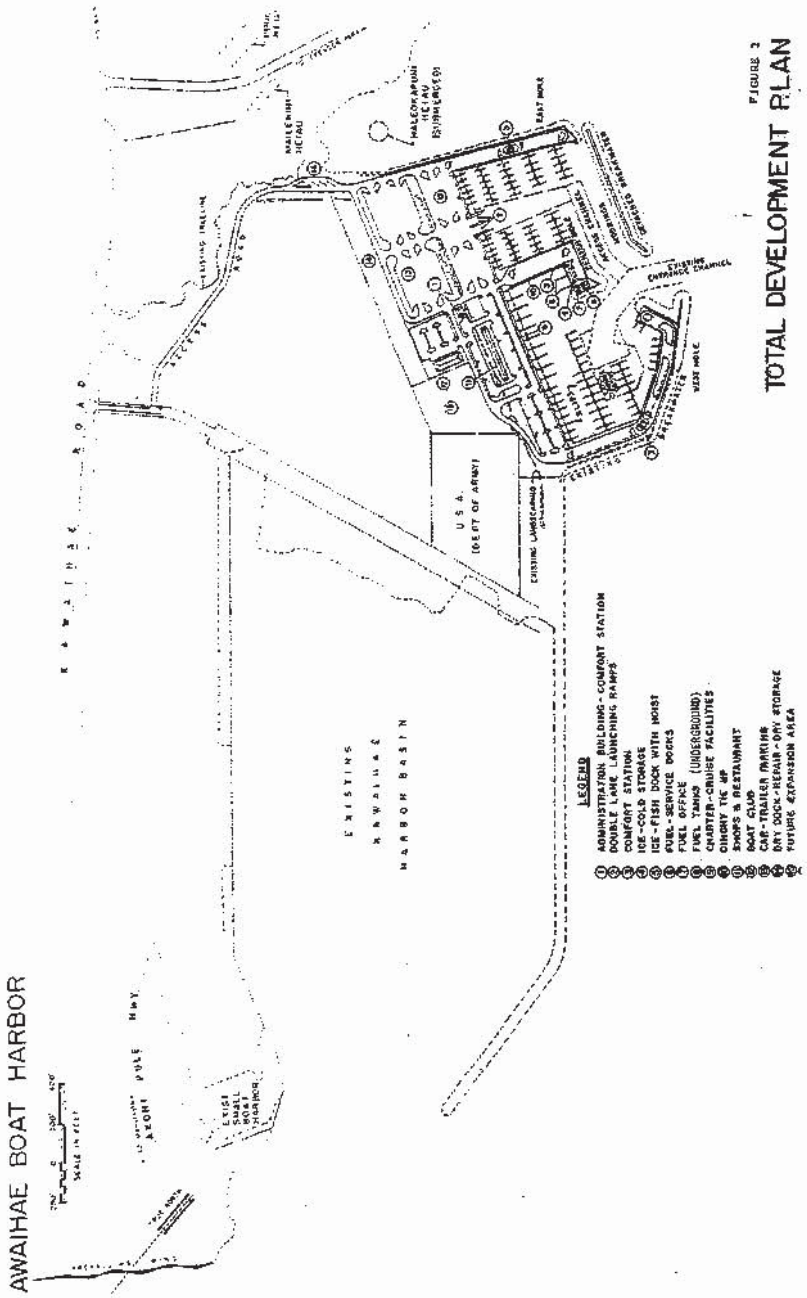
Subsequent to the harbor site relocation, the U.S. Army Nuclear Cratering Group conducted test excavations using high-explosive row charge cratering techniques under Project Tugboat (Ref. 2). The experiments included extensive investigations of wave refraction, hydrography, geology, safety, and environmental impact on marine life. The project resulted in near completion of all Federal excavation requirements of the light-draft harbor. The detonations were completed in May 1970 and resulted in the creation of an 850-foot-long, 120-foot-wide, 12-foot-deep entrance channel, and a 1.2-acre turning basin. An 850-foot-long breakwater was also constructed during Project Tugboat, and the feature will be included as part of the completed harbor facilities.

Under Project Tugboat, experimental excavations removed approximately 33 acres of reef formations in the creation of the entrance channel and turning basin. An 850-foot-long breakwater was also constructed during Project Tugboat, a feature which would be incorporated into the proposed development plan (Ref. 2). The landward portion of the proposed project site is located entirely upon coral fill with a minimal area containing topsoil, vegetation or other natural resources. The coral fill site was generated during the construction of the deep-draft harbor, and was in excess of area needed for operations relating to commercial and industrial harbor activities.

2.4. PROJECT DESCRIPTION

The proposed action is based on the Corps of Engineers Plan B (Figure 12) as outlined in the General Design Memorandum of 1971 (Ref. 4).

The proposed harbor will accommodate approximately 300 small craft within a 33-acre berthing basin adjacent to



20 acres of onshore facilities and harbor structures (see Figure 2). Harbor features include an existing main access channel and turning basin which will be protected by a proposed extension of the existing northern breakwater. A revetted mole on the southern end of the harbor and an offshore breakwater will protect a secondary access channel. Projecting into the interior of the harbor will be a wave absorber at the end of a proposed interior access mole. Onshore facilities will include access road, parking, dry storage areas, launching ramp, administration building, fueling dock, boat repair area, landscaping, and irrigation (Ref. 43).

2.4.1. Berthing and Mooring

The Total Development Plan (Figure 2) illustrates the proposed berthing and mooring layout. The recommended plan is based on providing the maximum safety, efficient use of water area, conformance to the physical configuration of the harbor as well as being in close proximity to vehicular parking stalls. The distribution of berths is as follows.

	Recommended Plan	
Boat Length	Number of Berths	% of Total
25	48	16
30	66	23
35	60	21
40	56	19
50	42	14
65	19	7
TOTAL	291	100%

Moorings for transient crafts is also provided and is located on the sheltered side of the detached breakwater.

Main catwalks are designed to have a minimum width of six feet. Hose bibbs will be provided at each slip.

Shops and Restaurant

For 18,000 square feet of shops and restaurant floor area, the Ordinance requires 90 parking stalls. A total of 119 stalls are provided.

Since, it is expected that, individuals and/or groups may operate their own or rental vehicles to visit the charter and cruise facilities nearby, parking stalls would be available for them at the shops and restaurant area.

Boat Club

Parking for the Boat Club will be provided by the lessee. There is room for approximately 92 stalls or 17 more than required by the County Ordinance.

Ice-Cold Storage

Fifteen parking stalls are provided for the ice-cold storage area.

2.4.4. Utilities

A. Domestic Water

Presently a six-inch domestic water main within Kawaihae Road serves the Kawaihae Village and the surrounding developed areas. Under the jurisdiction of the Hawaii County Department of Water Supply, the existing main and the existing source are inadequate to service all of the proposed water needs at the harbor. Until additional sources and larger transmission lines are funded and constructed, water usage at the harbor may be restricted by the currently allowed installation of a 5/8-inch meter, which would probably be adequate for washdown, comfort station and drip irrigation use demands.

In order to have adequate fire fighting capabilities, the existing six-inch main in Kawaihae Road will need to be increased in size.

2.4.2. Access Road

The access road to the harbor from Kawaihae Road is located as shown on the development plan. The road is located as far as possible to the east toward the thickly wooded kiawe growth and at a safe distance from water's edge. Thus, vehicular traffic to the small boat harbor will not conflict with nor interrupt the activities at the maritime activities and industrial area.

During the initial stage of construction, the access road will be graded to the designed base course level and compacted. Ultimately, the road will be paved with two-inch asphaltic concrete having a width of 24 feet. The road shoulders are a minimum of six-foot width and stabilized with medium-curing liquid asphalt (Ref. 43).

2.4.3. Parking

Vehicular parking are as follows for each respective facility or activity.

Wet Stored Vessels

Three hundred seventy-one (371) auto parking stalls with dimensions of 9' x 20' for both 90° and 45° angles are provided for the 291 berths. This is a ratio of 1.27 stall per berth and meets the standard of providing a 1:1 ratio. Separate parking stalls are being provided for the other boat harbor activities.

Trailered Vessels

Two hundred (200) car/trailer parking stalls with dimensions of 10' x 40' at 45° angle are provided for the two double-lane launching ramps. Considering the minimum criteria of 40 stalls per launching ramp, 200 stalls are more than adequate.

Administration Building

Based on a floor area of 1,500 square feet per floor or a total floor area of 3,000 square feet for a two-story building, six parking stalls are required by the applicable County Ordinance. Seven parking stalls are shown provided.

D. Solid Waste Disposal

Collection of solid waste will be by trash cans or other suitable containers which could easily contain polyethylene plastic bags. Filled bags could be collected and disposed of at the public Puako Transfer Station, a collection area where a container trailer equipped with hydraulic compacter is stationed, and located approximately five miles from the harbor, or at the Waimea open dump, approximately nine miles from the site.

E. Drainage

The isohyetal map for the island of Hawaii shows that the mean annual rainfall at the harbor site is less than ten inches. As such, surface runoff during the early stages of development will be easily handled by the unpaved area.

When the area is paved, surface runoff will be directed to one or more drywells. The specific number of drywells will be determined during the design stage after the flow quantity is calculated.

2.4.5. Launching Ramp and Access for Launched Craft

The two double-lane launching ramps with loading docks are proposed within the east basin, which is more protected from direct wave action and is thus calmer.

2.4.6. Administration Building

Centrally located within the harbor complex, the administration building is seen as a two-story structure with offices on the top floor. From that vantage point, administrative staff and personnel would have maximum control of the various harbor operations. The ground floor would house meeting rooms and a public comfort station.

Extensive use of native pahoehoe and/or moss rock for veneers should be encouraged during the design stage of the building for corrosion protection as well as to blend with the general surrounding.

B. Power, Telephone and Lighting

A 12-kV distribution line exists within Kawaihae Road. This line is more than adequate to handle the anticipated electrical demand by the facilities in the harbor. In addition to the 12-kV line, a 69-kV transmission line is installed on the existing pole. This latter line is not active and will be activated if necessary to operate very high-energy consuming equipment and motors.

The existing telephone service within Kawaihae Road is also adequate. Power and telephone service to the harbor is proposed as an underground system located within the access road shoulder. At the harbor, 55-watt, 29-foot-high low-pressure sodium luminaries are proposed to be mounted on poles located along the harbor shoreline and along the access road. A public phone and booth will be located close to the launching ramp (Ref. 43).

C. Sewerage

There are no public or private sewerage systems in the vicinity of the proposed harbor and there are no immediate plans to construct a public system. The coastal water at the harbor is currently Class A and as such, a system complete with treatment facilities will be provided.

One packaged wastewater treatment plant complete with aeration and setting compartments, chlorination chamber and a treated effluent cesspool will handle waste from the proposed onshore facilities. The plant is located on the west end of the harbor. In the distant future when a public wastewater treatment plant is built, the packaged wastewater treatment plant could be either converted to a sewage lift station or a packaged sewage lift station installed (Ref. 43).

Boat Club

An approximate total area of 1.4 acres is set aside for a boat club. Improvements could include a 40,000 square feet parking area, a 15,000 square feet clubhouse, a 7,000 square feet open area and a screen planting strip around the perimeter. A dry storage area for boat club members only is not included since the dry storage area for the harbor is located adjacent to the club. Thick screen planting is recommended within a strip around the perimeter of the area. This would accomplish three purposes: act as a windbreak for part of the harbor during the prevailing trades; provide greenery; and for aesthetic purposes.

The improvement discussed above should be made by the Lessee.

Ice-Fish Dock and Ice-Cold Storage

Located adjacent to the fuel facilities on the center mole, the activities here include a combination ice and fish dock and an ice plant. Its central location provides efficient service to boaters.

2.4.9. Dry Dock - Repairs - Dry Storage

Approximately 2.4 acres in area, this site is located to provide easy access to and from the launching ramps. Also, boats destined to the area trailered into the harbor from Kawaihae Road would cause little interference to the other harbor activities.

2.4.10. Future Expansion Area

An approximate 2.4-acre site is set aside for future expansion. Possible needs which would expand into this area could include additional auto parking, shops and a restaurant.

Other possibilities include boat sales and perhaps a second boat club.

2.4.7. Fuel Service Docks and Fuel Tanks

The fuel service docks and fuel tanks are to be located at the terminus center mole adjacent to the ice-fish and ice-cold storage. This location provides (1) surge protection, (2) easy access to boaters, and (3) safety to moored vessels at slips in the event of accidental fuel spills. Four fuel service docks are to be provided - two for diesel and two for gasoline.

Fuel tanks will be installed underground as required by the Hawaii County fire code. The underground installation would allow for surface parking as well as lessening the visual impact of above ground fuel tanks.

2.4.8. Boat Harbor Activities

Charter and Cruise Facilities

The charter and cruise facilities area is shown where onshore and offshore needs and activities are located in close proximity to each other for efficiency. The plan allows for easy tour bus movements, ticket booths, easy and convenient access to and egress from charter and cruise vessels, restrooms, parking, restaurant and retail shops.

Shops and Restaurant

An approximate 18,000-square-foot area is set aside for retail shops and restaurant(s). Types of shops commonly found at Kailua-Kona, which cater to the harbor activity needs at Honokohau Harbor and Kailua Bay include:

Marine Supply and Service
Snorkel Shop
Dive Shop
Surf Shop
Fresh Fish Market
Aquarium
Curio Shop
Liquor Shop
Pantry

It is recommended that the shop and restaurant structure be a two-story building of 9,000 square feet per floor with the restaurant on the second floor, which would afford better views of surrounding areas and features.

Zone One, low intensity development, includes treatment of the entry road and the west, center and east moles. This zone includes the perimeter areas of the project site and generally is more exposed to the somewhat harsh environmental conditions. Species in Zone One which will primarily serve to provide wind and visual buffering include:

Cocos nucifera	- Coconut
Casuarina equisetifolia	- Ironwood
Scaevola frutescens var. sericea	- Beach naupaka

Zone Two, moderate intensity development, treats the remaining areas generally within the parking areas and adjacent to buildings to provide shade and visual relief. Plantings include shade and wind buffer types, such as:

Thespesia populnea	- Milo
Messerschmidia argentea	- Beach heliotrope
Scaevola frutescens var. sericea	- Beach naupaka

The existing vegetative buffer of Beach naupaka and Coconut palms is planned to be left intact except for segments where vehicular accessways are needed.

Irrigation would be by the drip method, where exposed polyethylene tubing with emitters inserted would irrigate each plant. Within pavement areas, polyvinyl chloride pipe are recommended to be installed underground with sleeve for protection. This irrigation method is more economical than conventional systems and will aid in conserving water.

2.4.14. Source of Rock

Approximately 40,000 cubic yards of quarry rock are required for the construction of the Kawaihae Small Boat Harbor offshore protective structures. The maximum size of rock required is four tons.

Potential sources of rock for the construction of harbor structures are currently being investigated by the

2.4.11. Public Safety

Aside from police and fire protection, potential steps to avoid hazards to the public and the boaters include providing paved, adequate concrete curb barriers to restrain vehicles from inadvertently entering the water. During the initial stage when the back-up area is only graded, a temporary barrier will be provided. The barrier will be of wooden, metal or wire rope construction, or one- to two-ton boulders.

Fencing of the entire harbor shoreline may prevent the public from entering the harbor waters. Such preventive measure is considered costly and aesthetically unpleasant. Instead, adequate signs warning the public of the presence of sharks should be strategically placed near water's edge and a Haleokapuni (shark) Heiau sign placed to indicate the approximate location of the Heiau (see section 3.11, Historic/Archaeological Setting) (Ref. 43).

2.4.12 Recreation

In addition to boating, other passive recreational opportunities are provided with the construction of the harbor. The observation point for the adjacent historic/archaeological site and a connection to the historic site, is located on the south shore of the coral fill area. Pedestrian pathways connect other project features such as parking, administration building/restrooms, and other structures. Passive landscaped areas may be provided along pedestrian pathways for picnicking and relaxation.

Other passive recreation that may be provided as a result of the harbor construction includes shoreline fishing and netting from harbor structures (Ref. 43).

2.4.13. Landscaping and Irrigation

The landscape development concept for the small boat harbor site will involve the use of native and/or adapted species of trees, palms, shrubs, groundcovers and grasses to create two landscape development intensity zones--low and moderate development. The plant materials in each zone will be selected for general low maintenance characteristics as well as their tolerance to drought, wind and salt.

environmental impacts and proposed mitigation measures (Ref. 20).

2.4.16. Development Plan Phasing

Five phases of development are recommended. These phases were developed to provide an orderly sequence of construction of the harbor. It is recognized that the recommended phasing plans may be adjusted to accommodate future economic trends, population shifts and demands, and available public and private funds.

The work items of all phases are presented as follows. Work items marked with an asterisk (*) after the work description indicates federal-state funding.

Phase I Development

1. Construct detached breakwater;* east, west and center moles;* and harbor revetment.

2. Dredge new turning basin in west basin of harbor and dredge access channel and access for launched crafts in east basin of harbor.*

3. Use dredged materials to construct moles and supplement with existing stockpiled coral material.

Phase II Development

1. Construct one double-lane launching ramp and two service docks.

2. Construct administration building-comfort station.

3. Install sewage treatment plant, lift station and sewer and force main from administration building to treatment plant. Install sewer to fuel service docks.

4. Construct access road to subgrade level; and install water, power and telephone lines to service administration building, center mole and washdown facility.

5. Construct fuel service docks.

6. Install temporary moorings.

Corps of Engineers. One site under consideration is the Makeahau Quarry, owned by Queen's Hospital, which was opened for the construction of the large-draft harbor at Kawaihae from 1957 to 1959. Because of previous and potential negative impacts to the nearby John Young Homesite and the Haleokapuni Heiau downstream, the Corps of Engineers is investigating feasible alternate quarry sites. Should the Makeahau Quarry be the preferred site, approval and coordination must first be obtained from the State Historic Preservation Officer and the National Park Service (Ref. 43).

The proposed Corps historic site protection plan will initially be in the form of a determination of effect pursuant to 36 CFR Part 800.4(b) which will be submitted to the State Historic Preservation Officer and the National Park Service for their review and comment. All detailed blasting plans at the site will be coordinated with the SHPO and the NPS prior to the start of work. The Corps may be required to monitor the blasting operations at the quarry to insure that they will be within acceptable levels that will not cause direct damage to the historic sites.

2.4.15. Dredging and Deposition

The required dredging work would be limited to the 80-foot-wide, 640-foot-long, and eight-foot-deep main access channel since the entrance channel and turning basin were constructed under Project Tugboat. The dredging is expected to be accomplished using land-based equipment operating from a temporary causeway constructed of coral material from the existing coral fill area. Allowable overdepth would be limited to one foot to compensate for inaccuracies in dredging. Required dredging and allowable overdepth dredging volumes are estimated at 5,000 and 1,700 cubic yards, respectively (Ref. 4).

Stones and rock obtained from field borrow and/or commercial quarries along with coral rock and coral sediment obtained from the existing deep-draft harbor dredged material stockpile site (adjacent to the project site) will be deposited as fill material for the harbor construction. Approximately 40,000 cubic yards of stones and boulders and 40,000 cubic yards of coral rock and coral sediments will be discharged by shore-based crane or dump truck on the sea bottom to construct the protective structures.

A Section 404 Evaluation of the small boat harbor is currently being prepared by the Corps of Engineers which details the characteristics of the action and presents the

Phase III Development

1. Construct comfort stations on east and west moles.
2. Install water, sewer, power and telephone lines to service comfort stations on east and west moles.
3. Construct one double-lane launching ramp and one service dock.
4. Install area lights.

Phase IV Development

1. Install berthing facilities, and water and power lines.

Phase V Development

1. Install six inches concrete curb.
2. Pave access road and parking areas. Exclude Boat Club area.
3. Stripe parking stalls, road centerline and install signs.
4. Install area lights.
5. Install landscaping and irrigation system.

2.4.17. Development Plan Cost Estimate

Construction cost estimates for the five phases of development at Kawaihae Boat Harbor are based on prices as of December 1983.

Included in the totals of the phases are surveying and engineering costs, supervision and administrative costs and a contingency factor. The estimates are approximate since they are based on conceptual plans and not on detailed construction plans.

Since funding will be the governing factor on the description of work during the development phases, it is recommended that adjustments be made annually.

The following estimates are based on work, in place complete as described above:

Phase I Development	$ 7,993,000	(Federal 2,842,700) (State 5,150,300)
Phase II Development	2,048,800	
Phase III Development	2,683,200	
Phase IV Development	3,105,600	
Phase V Development	2,672,100	
TOTAL	$18,502,700	

2.4.18. Use of Public Lands and Funds

The entire project occupies land owned by the State Department of Transportation, Harbors Division. On the national level, the project represents an expenditure of Federal funds. Specifically, the Federal funds will be used in the construction of oceanside or outer structural revetments. This work is included in Phase I and constitutes $2,842,700 of that phase. The State of Hawaii will contribute part of the total money for the Federal portion of the project, plus 100 percent of the money for the non-Federal portion of the project, which constitutes the cost figures for the balance of Phase I and Phases II to V.

conveyor and dockside loading facility; pipelines and tank storage for fuels, liquid fertilizer and molasses; a cattle-loading chute and corral; a 35-acre area for storage and handling of containers, general cargo and pumice; a dry fertilizer manufacturing plant; a wood chip processing facility; and Kawaihae military reservations. Two small boat harbor facilities exist within the harbor, a ten-foot-deep, 250-foot-square basin at the north end of the site adjacent to the barge wharf, and a ten-foot-deep, 250-foot-square basin with mooring facilities at the south-east end of the harbor adjacent to the overseas wharf. Both small boat harbors are adjacent to the sloping riprap shoreline (both cemented and uncemented) and each provide timber catwalks for mooring (Ref. 9).

The land area created by dredging and filling operations consists of approximately 46 acres of coral fill, most of which is in excess beyond that needed for land development related to the deep-draft harbor. It is upon this fill area that the onshore facilites and access are proposed for the small boat harbor.

In 1973 coral areas along the harbor side of the breakwater and landfill areas were dredged to provide additional usable harbor water area and this dredged material was used as fill at the southeastern end of the harbor to create additional landfill which resulted in two semi-enclosed water areas. This fill was created to be utilized for expansion of the commercial port.

The 77-acre Pu'ukohola Heiau National Historic Site and the adjacent Samuel Spencer County Park lie immediately south of the project area. Approximately 1.5 miles south of the site lies the Mauna Kea Beach Hotel, overlooking Kaunaoa Beach.

The shoreline of Kawaihae Bay is predominantly rocky with numerous low sea cliffs. Several small pocket beaches occur along the shoreline south of the existing harbor. One of these sand beaches fronts Samuel Spencer County Park, and the other beach fronts the Mauna Kea Beach Hotel.

3.2 TERRESTRIAL GEOLOGY AND SOILS

The island of Hawaii was formed by five volcanoes, three of which contributed surface lava flows to the Kawaihae region. To the north, the flows of Kohala Mountain, the oldest of the volcanoes, formed land features during the Hawi and Pololu volcanic series. During the Hamakua volcanic series (Pleistocene Age) volcanic flows from Mauna Kea created land forms within the immediate area of Kawaihae Bay. These deposits were

3. DESCRIPTION OF ENVIRONMENTAL SETTING

3.1. GENERAL

Kawaihae is located on the northwest coast of the Island and County of Hawaii (Figure 1). Kawaihae lies in the South Kohala District, approximately 71 miles west of Hilo. The tributary area for the project includes the North and South Kohala Districts as well as the Honokohau District.

The project is on Kawaihae Bay, a gently curving identation along the coastline which stretches about 6.5 miles between Kapuniau and Kaiopae Points and encompasses a water area of approximately 13 square miles.

The slopes of the Kohala mountains extend to the northeast about seven miles to an elevation of about 5,500 feet. Mt. Hualalai, an 8,000-foot peak, lies about 16 miles south of the bay, the black lava flows no longer being visible through the vegetated slopes.

The tributary area for the Kawaihae Boat Harbor includes the North and South Kohala Districts and the Hamakua and North Kona Districts. The Population count conducted during the 1980 U.S. Census shows that within the tributary area there are 3,249 persons in North Kohala and 4,607 persons in South Kohala. In addition to the above two districts, the Hamakua District, where the principal town of Honokaa is about 25 miles from the site (as compared to 45 miles from Hilo) and where the population count for the district is 5,128 persons, should also be included within the tributary area.

The Kawaihae deep-draft harbor is a commercial harbor immediately adjacent and to the north of the project area. This harbor has been excavated from shallow coral reef formations at the Northeast end of the bay and encompasses 35 acres of offshore waters and industrial onshore facilities.

The deep-draft harbor is owned and maintained by the State of Hawaii and is approximately 85 nautical miles from Hilo Harbor. The construction of the harbor was completed in 1959 with the dredging of an extensive coral reef formation which extended 4,000 feet offshore and more than a mile along the coast to the south of Kawaihae. Since 1959, additional dredging for expansion and storm repair work has been employed.

Onshore facilities include a 605 foot concrete deep-draft wharf; a 410-foot concrete barge landing; three general cargo sheds; a large bulk sugar storage shed with

later covered with Pahala ash. Additional land features were created to the south by Mauna Loa, while Mt. Hualalai contributed to lava flows south of Kawaihae near Puako (Ref. 6).

Soils in the coastal plains region adjacent to the coral fill are in the Kawaihae association which is moderately deep and gently sloping to moderate steep. The soils are excessively drained and have a medium textured subsoil. The association is used for pasture, but the carrying capacity is low and the water supply is limited. The soils are also suitable for recreation areas, wildlife habitat, and homesites.

The other major soils associations within the South Kohala District include the Puu Pa-Pakini-Waiaha association, a shallow to deep, nearly level to steep and well to excessively drained medium textured subsoil found on uplands; and the Waimea-Kikoni-Naalehu association of very deep, nearly level to steep, and well drained medium to fine textured subsoil found on the uplands (Ref. 8).

Topographically, the coral filled land area at the harbor is generally irregular with a portion of the back-up area having three terraces.

3.3 GROUNDWATER HYDROLOGY, WATER QUALITY AND DRAINAGE

Due to the highly permeable substrate in the Kawaihae area and low rainfall (less than ten inches per year), there are no perennial streams. The greatest groundwater reservoir for the area, and the entire island, is near sea level where fresh water recharge from rainfall accumulates in widespread bodies floating on the slightly heavier sea water (Ref. 31). The interface of this dynamic Ghyben-Herzberg system is brackish water, resulting from the mixing of fresh and sea water (Ref. 32). The basal water is probably brackish to saline at the shore and for several thousand feet to several miles inland as in the Kona area (Ref. 26). In dry areas such as Kawaihae where fresh water exchange is small and tidal influences is felt, the effect of mixing may extend such that the entire lens is brackish for more than a mile inland (Ref. 31 and 25). Movement is continous within the water body as fresh water recharge percolates into the lens at the water table and moves laterally to the sea. The thickness of the brackish lens depends on the magnitude of mixing caused by the tides and the variation in recharge (Ref. 26). Mixing is greatest near the shore due to the proximity to tidal fluctuations (Ref. 25). Groundwater quality varies considerably from place to place, due to variations in the extent of fresh and marine water mixing.

Continuous fresh water addition via rainfall infiltration and movement down the slope toward the shore necessitates a means of outflow. Most of this groundwater escapes into the sea as diffused nonpoint flows along the shore, and at a few places it is concentrated in large springs (Ref. 27). Diffuse groundwater discharge along the shore is a characteristic hydrological feature and has been shown to occur around the entire island of Hawaii (Ref. 25, 27, 28, 29, 30). Experts feel that a substantial part of the island rainfall discharges perenially at the shore. This discharge appears to be most prevalent in embayments, but it is not known if this a true pattern or if it is only more easily detected in bays because of the reduced wave energy. The groundwater flux in the Kawaihae area is probably comparatively low because of the small recharge resulting from the generally low rainfall and high evapotranspiration. Groundwater was probably discharged along the shoreline prior to the construction of the commercial harbor. Excavation and landfill areas of the completed harbor have probably displaced the natural discharge points in the immediate area. There are no data indicating groundwater discharge areas in the present commercial harbor. Landfill may have been impervious enough to displace groundwater discharge to one or both ends of the harbor area, or landfill may have been impervious enough to displace the groundwater discharge point farther seaward within the harbor area. Despite the low percentage of groundwater recharge ftom local rainfall in the Kawaihae area, groundwater supplies will greatly exceed the demand for water resources for many years in the region, even beyond the year 2000 (Ref. 6).

Two gulches reach the coral fill area, the Makahuna Gulch from the northeast and the Makeahua Gulch from the east. Because of high percolation rates, surface runoff through the site is negligible although occasional heavy storms may produce runoff into marine waters.

3.4 TERRESTRIAL BIOLOGY

The Kawaihae region supports an arid, desert-like vegetation. The soil is the reddish-brown variety typical of Hawaii's desert regions and supports a small number of grasses, hardy shrubs such as the haole koa, ilima, and kolu; and the kiawe tree. Other trees including monkeypod, beach heliotrope, milo, kou, and coconut grow along the shore where groundwater is available (Ref. 3). A row of coconut trees is planted in a strip along the landfill margin at the project site, approximately 200 feet inland from the water's edge, parallel to the shoreline. Beach naupaka (Scaevola fraccada) has been planted as groundcover beneath the palm trees. A Bird and Mammal Survey of Army Lands in Hawaii (Ref. 22) identified the terrestrial

biota on and in the vicinity of the Kawaihae Military Reservation, which is located within the existing deep-draft harbor. Non-game birds recorded consisted of the Japanese White-eye and the House Sparrow. Bird species probably found occasionally in the open landfill and occasionally feeding along the shoreline are the Wandering Tattler, the Ruddy Turnstone, and the American Golden Plover. Additional bird species may include the Cardinal, House Finch, Warbling Silverbill, Spotted Dove, and Barred Dove. The Nene or Hawaiian Goose visited the area irregularly until removed and released elsewhere by government biologists. This location is far from the normal range of the Nene. A pair of Green Sea Turtles were observed off the breakwater during the bird survey (Ref. 22). The Hawaiian population of this species, is now listed by the Federal government as a "threatened" species, however, the prime breeding area for this species is in the northwest Hawaiian islands (Ref. 6).

No Federally- or State-listed threatened or endangered species utilize the project area as a critical habitat, nor is the project area located within or adjacent to any designated wildlife refuge, marine sanctuary, or natural area reserve. The green sea turtle, which was recently listed as a threatened species, occasionally visits the project site (Ref. 7).

A Fish and Wildlife Coordination 2(b) is currently scheduled for the project which will provide a qualitative terrestrial survey (including shorebirds) and update earlier evaluations by Ocean Research Consulting and Analysis, Inc. (Ref. 7) for terrestrial and marine fauna.

3.5 AIR QUALITY

There are no State of Hawaii air quality monitoring stations located near the site of the proposed project. The quality of the air in the Kawaihae area has generally been considered good. The Kona coast of the island of Hawaii is subject to temperature inversions during the early morning and early evening hours; however, the quantity of hydrocarbon emissions generated in the Kawaihae area is so small that there is no apparent reason for concern. The prevailing winds disperse and transport any hydrocarbon emissions out to the sea or over uninhabited land areas. Gusty winds have occasionally, over the last five years, generated fugitive dust from the landfill area of the commercial harbor. This dust has occasionally formed towering clouds that have blown up to a mile offshore. Although a coconut tree windbreak and a small amount of naupaka groundcover are present at the landfill site, they are insufficient to control or mitigate wind-induced erosion (Ref. 6).

3.6 NOISE CONDITION

Existing noise conditions at the proposed project site are a result of both natural and man-induced factors. Natural noises in the vicinity which tend to provide the predominant background sound include wind and surf. Noises generated by man's activities surrounding the site are occasionally superimposed and include commercial harbor activities, nearby highway traffic, and occasional overhead aircraft. Residences in the vicinity of the project site are few and scattered, and are at sufficient distances to remain relatively unaffected by these intermittent sounds. Specific noise level data have not been compiled for the study area (Ref. 6).

3.7 MARINE SETTING

3.7.1 General

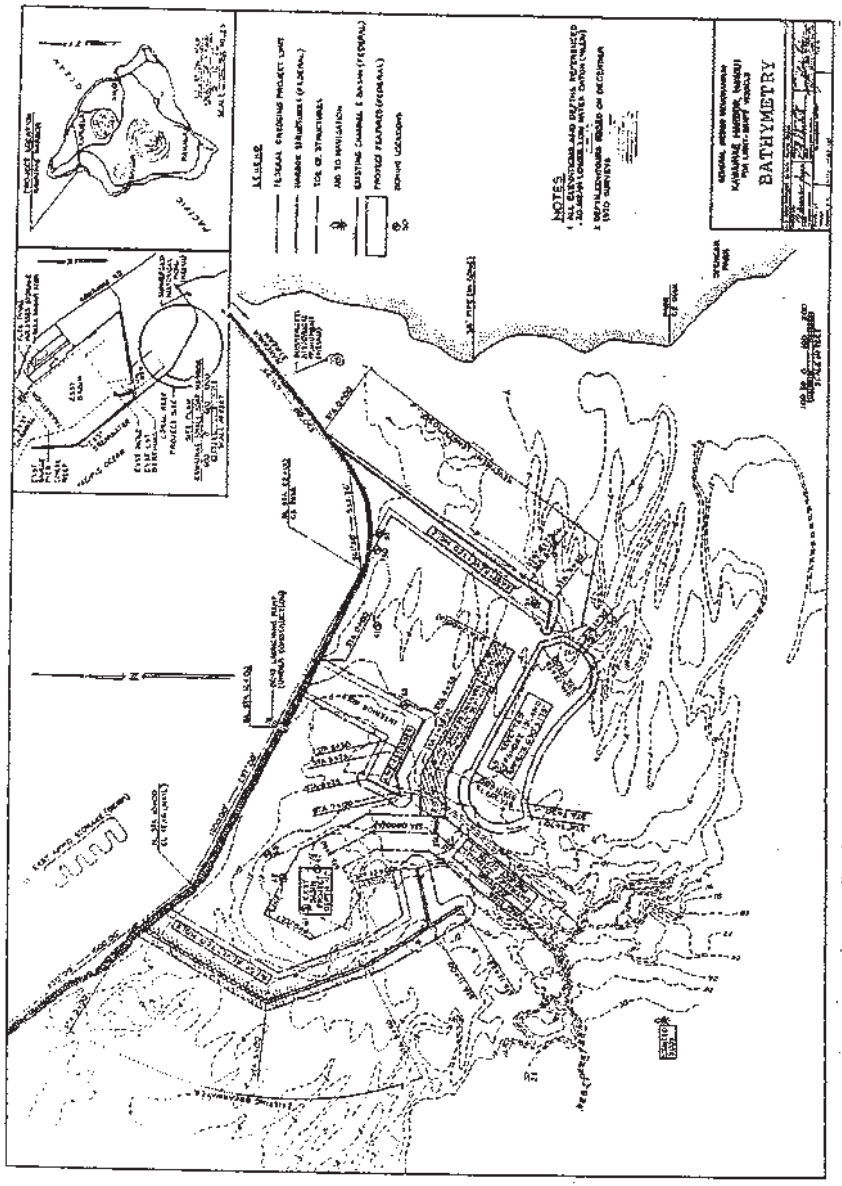
Prior to the start of construction of the deep-draft harbor at Kawaihae in 1959, a pristine apron reef of approximately 434 acres existed offshore of Kawaihae. Construction of the deep-draft harbor resulted in the burial of approximately 103 acres of pristine reef by coral landfill, the burial of approximately two acres of pristine reef by breakwater rock, and the destruction of approximately 108 acres by dredging of the pristine reef. Impact to additional pristine reef has also been observed (Ref. 7).

The construction of the entrance channel for a new small boat harbor in 1971 (Project Tugboat, Ref. 2), resulted in the destruction by row charge excavation of approximately two acres of pristine reef at the outer end of the entrance channel (0.5 percent of the original pristine reef area). It is not known to what extent the breakwater constructed for the small boat harbor is acting as either a barrier to sediment transport or a protective structure for the remaining pristine reef outside of the commercial harbor from sedimentation occurring behind the proposed small boat harbor breakwater, but such relationships are highly likely.

There are no known marine biological surveys of the pristine reef off Kawaihae prior to the start of deep-draft harbor construction in 1959.

3.7.2 Bathymetry

The large coral reef offshore is the most predominant submarine geological feature near the project site. Analyses of maps indicate that only three small apron reefs exist off the island of Hawaii of which the Kawaihae



(REF. 4)

FIGURE 3

reef is the largest. Extensive sand deposits offshore from Kawaihae (Ref. 24) and sand from pocket beaches along the coast are derived from the erosion of coral reef. Extensive marine geological investigations were conducted during Project Tugboat (Ref 2) before and after the explosive excavations. Drillings to a depth of 76 feet below mean lower low water did not penetrate through the coral reef structure to the underlying basalt layer. Detailed depth soundings prior to Project Tugboat detonations revealed a complex and irregular reef bathymetry at the project site. In general, the submerged areas comprising the shallow southeastern basin of the proposed harbor have an average water depth of four feet while the deeper northwestern basin has an average of 12 feet. Figure 3 shows the bathymetry of the project area. The reef areas at the project site were classified by the Corps of Engineers into several categories prior to detonations:

A. Sediment Zone. The 150-foot- wide section adjacent to the existing coral fill area was covered by sediment deposits two to eight feet thick consisting of silt-sized blue-grey particles basaltic in origin.

B. Sporadic Coral Growth Zone. The zone between 300 to 600 feet off-shore from the existing fill area is relatively flat and covered with benthic algae (seaweeds). Scattered, large, and living coral heads rise to near sea level in the zone.

C. Active Coral Zone. Between 600 to 1,000 feet from the existing fill area is found a variety of species and forms of living coral, including dome-shaped colonies (probably Porites lobata) and branching finger-like forms (Porites compressa). The corals create a rough and irregular surface.

D. Sand Channels. Between 800 to 1,500 feet from the existing fill area are found sand channels which cut into the reef rock. The sand channels are seaward dipping grooves formed by a combination of wave action and scour. The location and thickness of the large sand channel off Spencer Beach Park has been studied by Marine Options Program stu-students at the University of Hawaii, Hilo (Ref. 23). The report indicated that a branch of the sand channel diverges north toward the site of the proposed harbor. The thickness and width of the sand deposit increases offshore toward deeper water. The deposit was mapped south of the breakwater from the shoreline at the beach park to a depth of 100 feet offshore.

the summer months. Kona storm waves commonly have heights of ten to 15 feet and eight- to ten-second periods while the typical southern swell produces one- to four-foot waves with periods of 14 to 22 seconds (Ref. 33). Only one damaging storm has affected the Kawaihae Deep-Draft Harbor since its completion in 1959. This storm occurred on 18 January 1963 and caused damages to the barge landing and the existing small boat harbor.

Wave refraction studies were conducted for deep water waves approaching the project site from S67.5 W, due west and N67.5 W, utilizing the offshore island, Alternate #3, design Alternate A. These directions were governed by analyzing storm exposure conditions. Based on the refraction studies, a 25-foot, 16-second wave from N67.5 W is the critical deepwater storm wave affecting the project site (see Ref. 4).

3.7.4 Tsunamis

Since 1819, the Hawaiian Islands have experienced six major tsunamis comparable in magnitude to the one which struck Hilo in 1946 (Ref. 34). Analysis of data indicates that damaging tsunami phenomena may be anticipated once every 25 to 30 years in Hawaii (Ref. 35). Only tsunamis approaching from the west will strike the Kawaihae coast directly and produce considerable runup. However, written records have indicated that no tsunamis have approached Hawaii from the west (Ref. 34) and that their probable occurrence is assumed to be very rare. Tsunamis can approach the Kawaihae Coast from other directions only by refraction or diffraction. Two of the historical tsunamis can be attributed to disturbances in the Kamchatka-Aleutian region, north and northwest of Hawaii. Tsunami runup date have been collected since 1946 and during this period of record the highest inundation recorded along the west coast of the island of Hawaii was +13 feet MLLW. The maximum water level observed during the 1960 tsunami was nine feet above MLLW, while observed water levels at the time of the 1946 and 1957 tsunamis were five and 12 feet above MLLW, respectively (Ref. 6).

3.7.5 Marine Water Quality

The offshore waters of the Kawaihae area are currently classified "A" by the State of Hawaii. These waters are to be protected for recreation (including fishing, swimming, boating, and water-contact sports), aesthetic enjoyment, and the support and propagation of aquatic life. The offshore Kawaihae area is designated as an Effluent Limitation II Segment (EL II). These are water areas where water quality is meeting or will be higher than the applicable water quality standards (Ref. 36).

All of the reef flat in the proposed small boat harbor area has been covered by additional materials during and since the construction of the commercial harbor and the small boat harbor breakwater. The sources of these sediments are the landfill area of the commercial harbor and silts washed into the nearshore area from Makeahua Gulch. These sediments are deposited in the deeper water behind the existing breakwater of the proposed small boat harbor as currents are sluggish in this area. The Makeahua quarry, utilized during the construction of the commercial harbor, is situated in Makeahua Gulch approximately 0.5 mile from the proposed project site and probably contributes sediments to the mouth of Makeahua Gulch during storm runoff.

Project Tugboat detonations resulted in the scattering of ejecta material over a large area and the accumulation of silt in the basin and entrance channel created by the detonations. Submarine observations indicate that the inshore silt deposits near the existing fill and breakwater have increased since predetonation conditions (Ref. 5).

It may later be necessary for the State of Hawaii to further alter the bathymetry of the small boat harbor area by additional dredging to provide adequate depth clearance for boats moored in the eastern basin, which now has an average depth of only four feet.

3.7.3 Oceanography

Detailed observations on the oceanography of Kawaihae Bay were conducted for the Corps of Engineers between June 1973 and June 1974 (Ref. 13). These studies, conducted monthly, included measurements of currents, turbidity, winds, and waves. Within the proposed small boat harbor area, the currents are wind-induced and are typically of very low velocity (0.02 to 0.1 knot) which is usually characterized as "deadwater" or "stillwater." The exchange rate between the project waters and the open ocean is very slow. However, waters off Spencer Beach Park move rapidly with the wind. The layer of water affected by the wind is believed to extend to the full depth over most of the Bay when wind velocities exceed 12 to 15 knots. Beach debris from Spencer Beach was commonly observed in offshore waters but was never reported entering the area of the proposed small boat harbor behind the breakwater. The effect of ocean swell on currents within the basin was observed to be minor. Currents were slightly swifter during ocean swell conditions in the area of the proposed harbor basin. Waves most responsible for affecting the Kawaihae area are the Kona storm waves which are most likely to occur in winter and early spring, and waves of the southern swell occurring most frequently in

Bottom	250m	Low	33.40	0.21	0.62	24.9
Surface	250m	Low	34.08	0.19	0.55	25.2
Bottom	100m	Low	32.25	0.18	0.95	25.6
Surface	100m	Low	34.23	0.23	0.67	25.8
Small boat Harbor Project Site, Nest Mole (Existing Project Tugboat Basin)						
Bottom	250m	High	33.20	0.77	0.54	24.5
Surface	250m	High	32.14	0.80	1.26	25.4
Bottom	100m	High	34.04	0.56	0.12	24.7
Surface	100m	High	33.42	0.69	1.57	25.3
Bottom	250m	Low	34.23	0.21	0.62	25.3
Surface	250m	Low	34.25	0.23	0.75	25.4
Bottom	100m	Low	33.20	0.29	0.05	24.6
Surface	100m	Low	34.19	0.24	0.06	25.1
Spencer Park						
Bottom	250m	High	34.04	0.77	0.93	25.0
Surface	250m	High	30.00	1.52	6.26	25.7
Bottom	100m	High	33.73	0.77	1.47	25.0
Surface	100m	High	30.98	1.33	7.37	25.5
Bottom	250m	Low	34.17	0.30	0.97	25.1
Surface	250m	Low	33.82	0.32	1.24	25.7
Bottom	100m	Low	34.14	0.30	1.09	25.4
Surface	100m	Low	32.05	0.68	3.29	26.6

(Ref. 7.)

The mouth of Makeahua Gulch also shows recent accumulations of terrigenous silt deposits and turbid waters. Haleokapuni Heiau is believed to have been buried in the silt in recent years (see Section 3.11). Elsewhere outside the harbor complex, water quality appears good and water clarity high. At times, waters off Spencer Beach Park are turbid, but flourishing coral communities exist and tolerate the conditions. A number of water quality parameters were monitored within the commercial harbor during field evaluations on the effect of dredging operations on water quality and marine life (Ref. 10).

The waters within the commercial deep-draft harbor are classified "B" to be protected for small boat harbors, commercial and industrial shipping, bait fishing, compatible recreation, and the support and propagation of aquatic life, and aesthetic enjoyment. Freshwater springs line the shoreline along the Pu'ukohola National Historic Site. The intrusion of this fresh and brackish water along the coastline contributes to depressed surface salinities in the nearshore area (Ref. 37) and these waters may not meet their classification requirements for water quality.

Some water quality measurements on turbidity at the small boat harbor project site were described in 1974 (Ref. 11). Water turpidity is high at times within the proposed harbor basin area and along the walls of the landfill area, with water visibility generally less than one meter. Both act as silt traps, and the fine sediment particles may be placed in suspension during windy periods. There is ample evidence of silt being blown from the existing landfill area of the commercial harbor into the waters of the proposed small boat harbor and of landfill erosion along the revetment of the landfill area (Ref. 7). Additional fresh groundwater outflow contributes to the turbidity. Recent aerial photographs show additional evidence that sediment transported from Makeahua Quarry is directed into the cul-de-sac water area formed by the landfill site (Table 1).

Table 1. Water Quality Data. Salinity, temperature, orthophosphate and combined nitrate/nitrite values for three Kawaihae harbor sites. Samples were obtained from 12-14 April, 1978 during the daily maximum high and minimum low tide at the surface collected nearshore (100m distant) and offshore (250m distant.)

Depth	Station	Tide Level	S°/oo	PO (ug-at/1)	NO /NO (ug-/at/1)	Temp °C
Outer Reef Deep-Draft Harbor						
Bottom	250m	High	33.90	0.58	0.77	24.6
Surface	250m	High	32.23	0.39	0.46	25.3
Bottom	100m	High	34.14	0.54	0.63	25.3
Surface	100m	High	33.86	0.28	0.76	25.3

tinuing sedimentation that may be attributed to wind-induced erosion of, or leakage from the commercial harbor landfill and dredged coral stockpile; and (c) continuing sedimentation that may be attributed to transport of quarry tailings by flash flood waters coursing through Makeahua Quarry.

The degree of sedimentation within the project area that may be attributed to each of the above sedimentary processes is difficult to assess; however, elimination or mitigation of the above stress factors (either singly or in various combinations) may contribute to the improvement of the project's marine environment and possibly provide suitable conditions for the recruitment of biota from the non-affected areas surrounding the project site. Candidate recruitment species for the project site, if improved ecological conditions permit, would include those species observed and reported by the State Division of Fish and Game (1969-1970, Ref. 7); by Cheney et al. (1977, Ref. 37), and by Ocean Research Consulting and Analysis, Ltd. (1978, Ref. 7).

Many varieties of corals, including Porites and Pocillipora are common components of the remaining living reef communities outside of the project area. An uncommon Hawaiian coral, Porites (Synaraea) convexa, seems to achieve unusual abundance at Kawaihae offshore from Spencer Beach Park and off of the commercial harbor breakwater. The reef seaward and to both sides of the proposed small boat harbor is well-developed, pristine, wave-exposed, coral reef with abundant fish population and a typical dominance of the finger coral Porites compressa and the lobed coral Porites lobata.

In deeper waters off Kawaihae, black corals and abundant sand deposits are found which contain a variety of organisms including polychaete worms, sea slugs, benthic algae, and communities of the pen clam Pinna (Ref. 24). Thirteen species of macroscopic algae were found off the shore of the Pu'ukohola National Historic Site in 1977 (Ref. 42), of which only two were abundant, Biddulphia pulchella and Valonia aegagrophila. Two species which are sometimes indicative of polluted water, Ulva fasciata, and Enteromorpha sp. were present along the Kawaihae commercial harbor revetment. A more recent algal survey in 1978 (Ref. 7) within and in the vicinity of the proposed boat harbor observed and collected 15 species of macroscopic algae. In the northern third of the sea floor of the proposed project site, species of micromolluscs are present in dense populations indicating that sediments are oxidizing in nature. Mullet, akule, and a wide variety of reef fish and some green sea turtles (Chelonia mydas) have

Water quality within the Kawaihae Small Boat Harbor Project Site (existing harbor structures) is listed as meeting quality standards for Class A waters. Turbidity is high due to windborne dust from the landfill area and from sediments transported into the area from the quarry area. Low surface salinities and high nutrient values at a water quality study site off Spencer Park are probably the result of groundwater seepage into the nearshore marine environment. Similar groundwater contribution of nitrates has been demonstrated at Waialua Bay (Ref. 38), Barbers Point (Ref. 39), Honokahau Harbor (Ref. 40), and at Lahaina (Ref. 41). High nitrate values in the project area are probably related to fresh groundwater discharge in the area. Water circulation is poor due to low velocity wind-induced currents, and the prevailing wind directions create eddy patterns near and within the project site (Figure 3).

3.7.6. Marine Biology

One hundred eleven species of fish were reported by personnel of the State Fish and Game Division who conducted marine biological surveys before, during, and after Project Tugboat (1969-1970, Ref. 2). The majority of these species were observed in the reef areas not disturbed by the effects of commercial harbor construction. The project site was within the areas that were disturbed during the harbor construction.

However, in another study, the Ocean Research Consulting and Analysis, Ltd. report (1978, Ref. 7) states that within the proposed small boat harbor area, "The benthic environment is silt laden, coral cover is subnormal, and the fish life is virtually non-existent, and the area has shown very little recovery or growth since pertubation." Coral cover in the project site was relatively low (in 1978) with the bottom mainly dominated by silt and fine sand. In contrast, the reef within the breakwater of the deep-draft harbor demonstrated a marked recovery in coral growth since basin dredging and breakwater construction. This recovery is believed to be due to (1) availability of hard substrate, (2) ample water circulation, and (3) sufficient water clarity for growth. In rubble areas of the project site, coral recruitment has been restricted to small rubble fragments which ultimately limits the size of the colony. Some coral species are able to withstand heavy siltation (Yonge, 1935; Marshall and Orr, 1931); however, any sedimentation within the project area may cover rubble fragments making suitable substrate unavailable to settling larvae. These stresses may consist of (singly or in various combinations): (a) sedimentation that occurred only during construction of the deep-draft harbor; (b)con-

Because Kawaihae Bay lies nestled at the base of the coalescing slopes of the three mountains Kohala, Mauna Kea, and Hualalai, winds are very unpredictable. Additionally, temperature variations in the specific heats of water, air, and land affect the land and sea breeze setup, causing the wind patterns to change from morning to afternoon. General patterns are:

1. Normal tradewinds from the north-northeast dominate about 75% of the time at Kawaihae.

2. When tradewinds reach velocities in excess of 20 knots, the wind may approach Kawaihae from easterly headings.

3. Eddies probably characterize much of the wind pattern setup by topographic effects.

4. The harbor area is protected to a great extent against north-easterly storms by the Kohala Mountains and against southerly storms by the promontory to the south.

A typical day begins with westerly winds at five to eight miles per hour at 9:00 to 10:00 a.m. These winds blow continuously througout the day until 7:00 to 10:00 p.m., during which time the winds usually shift to easterly at seven to ten miles per hour and continue until three to four hours after sunrise. During wind shift times, the wind speed is rather light and the direction is quite variable. During the winter months, the steady pattern of the tradewinds occasionally breaks down for periods of several days. During these periods "Kona" (leeward) storms may occur, bringing fresh to strong southwesterly winds and heavy rains (Ref. 11).

3.8. INFRASTRUCTURE, UTILITIES AND SERVICE SYSTEMS

Telephone, power and water lines service the deep-draft harbor and the small number of residents in the Kawaihae area. Waste water in the area is handled only by local cesspools.

Presently, a six-inch domestic water main within Kawaihae Road serves the Kawaihae Village and surrounding developed areas. Presently, however, the line is inadequate to serve all of the harbor's various activities and provide adequate fire protection capacity. The County of Hawaii will allow a 5/8-inch meter to service the project.

A 12-KV distribution line exists within Kawaihae Road. In addition to the 12-KV line, a 69-KV transmission line is installed on the existing pole, but is not active.

been caught by gill net fishermen. The green sea turtle was recently listed as a threatened species. Nehu is also caught in the area with surround nets. The area immediately adjacent and to the south of the project are is a shark breeding and spawning ground. Grey reef sharks (Carcharhinus menisorrah) and white tip reef sharks (Tridenodon obsesus) frequent the shallow waters of Pu'ukohola Bay. During the calving season from November to March, Humpback whales (Megaptera novaeangliae) pass as close as 400 meters off the commercial harbor breakwater. The offshore waters of the Kona Coast are some of the richest fishing grounds in the main Hawaiian Islands (Ref. 6).

3.7.7. Climate and Meteorology

The general climate of Kawaihae is typical of the leeward sides. During most of the year, rainfall is sparse and winds are light and variable. The area is semi-desert: sunshine predominates, soil is thin, vegetation is scanty and composed of hardy, drought-resistant plants. Temperatures vary from warm during the night to hot during the day. The average annual high temperature for the Kawaihae area is 83.4 F, while the average annual low is 67.0 F (see Table 2). Rainfall for the area is an average 16.33 inches annually.

Table 2. Surface Temperature and Rainfall Summary for Kawaihae Area

Month	Average High Temperature (°F)	Average Low Temperature (°F)	Average Rainfall (in)
January	80.8	63.4	3.14
February	80.4	63.0	2.54
March	80.4	63.9	2.22
April	81.4	65.3	1.44
May	83.4	67.1	0.69
June	85.4	68.9	0.18
July	86.4	70.1	0.43
August	87.0	71.0	0.35
September	86.7	70.0	0.25
October	85.5	69.1	0.87
November	82.9	67.0	1.52
December	80.6	64.8	2.70
Annual	83.4	67.0	16.33

(Ref. 2.)

3.9. SOCIO-ECONOMIC SETTING

3.9.1 Demographics

The resident population of Hawaii County (island of Hawaii) according to the U.S. Bureau of Census survey conducted in 1980 is 92,053, with the North and South Kohala Districts making up approximately 8.5 percent of this total, or 7,856. The districts cover a land area extending in a 35-mile radius from Kawaihae and their respective populations are: North Kohala, 3,249; South Kohala, 4,607; Hamakua 5,128; and North Kona 13,748 (see Table 3). Hilo is the only major urban concentration with a population of 35,269. Population projections for Hawaii County in 1985, 1990, 1995, and 2000 are, respectively, 95,200, 105,100, 115,000, and 123,300.

Residents of Japanese extraction make up the largest segment of the island's resident population at 30.4 percent. Hawaiians and part-Hawaiians make up the second largest group at 25.3 percent, followed by Caucasians at 22.1 percent. The average family size in the County is 3.38, with a median income of 11,337 (Ref. 19).

Table 3. Resident Population of Counties and Districts: 1970 to 1980

		1980 Census Data		1970 Census Data	#Change	%Change
SOUTH HILO DISTRICT		42,278		33,915	8,363	24.7
City of Hilo	35,269		26,353		8,916	33.8
Honomu	559		737		-178	-24.2
Papaikou	1,567		1,888		-321	-17.0
Paukaa	544		-		-	-
Wainaku	1,045		-		-	-
Remainder	3,294		4,937		-1,643	-33.3
NORTH HILO DISTRICT		1,679		1,881	-202	-10.7
Laupahoehoe	500		452		48	10.6
Ookala	401		486		-85	-17.5
Remainder	778		943		-165	-17.5
HAMAKUA DISTRICT		5,128		4,648	480	10.3
Honokaa	1,936		1,555		381	24.5
Kukuihaele	332		310		22	7.1
Paauilo	755		710		45	6.3
Remainder	2,105		2,073		32	1.5

A solid waste disposal site exists approximately five miles from the site at the public Puako Transfer Station, a collection area where a container trailer equipped with hydraulic compactor is stationed (Ref. 43). Also, the Waimea open dump is located nine miles away.

The nearest police stations are located in Kapaau and Waimea. The nearest 24-hour fire station is in Waimea, while there are 8-hour stations in Hawi and in Kawaihae.

Medical services are provided at Kohala Hospital in Kapaau, Honokaa Hospital in Honokaa, and Kona Hospital in Kealakekua.

Land transportation is served by major highway systems that link Kawaihae to Kamuela, Hawi, and Kailua. The Kaahumanu Highway 19 (or Queen's Highway) links Kailua to Kawaihae and Kawaihae to Waimea, while State Highway 27 links Kawaihae to Hawi. The Kawaihae bypass connects the Route 19/270 intersection northerly 2.8 miles to a new connection with existing route 270. Bus lines also service these routes. This relatively recent completion of Highway 19 between Kailua and Kawaihae and (Federal aid project No. S-0270 [4]) provides the potential for major economic, commercial, and residential expansion. Both the existing County road leading to Spencer Beach Park and State Highway 27 now transit the Pu'ukohola Heiau National Historic Site adjacent to the project site. The bypass road will supercede the existing Route 27. Both roads will ultimately be rerouted outside of the boundaries of the historic site, and the segments existing within the site demolished. Unimproved roads exist in the adjacent landfill area and traffic in the landfill area is minor. Paved roads serve the area within the commercial harbor.

The new Keahole Airport north of Kailua is now less than 25 miles from Kawaihae and serves the western side of the island.

Marine transportation is now served by the commercial deep-draft harbor at Kawaihae which is the newest and fastest growing harbor in the State. The port provides shipping facilities for the south and west coast of Hawaii, thus eliminating the costly overland transportation of goods and supplies from Hilo 76 miles distant. The Kawaihae commercial port is designed for the further expansion of activities and commerce anticipated for the Kona Coast.

Ammunition storage facilities on the project site are periodically used by the U.S. Army. Coordination with the U.S. Army Munitions Division will be carried out for any work affecting the ammunition storage facility.

Until recently, the Kohala area has been agriculturally oriented, producing sugarcane, diversified truck crops, and cattle. However, the principal crop, sugarcane, was phased out of North Kohala in 1975. There are presently many attempts to diversify the agricultural and economic base of the area. The rich soils and greater rainfall of the North Kohala area suit agriculture well, but those of the more arid Kawaihae region do not. The major commerce of the region includes cattle ranching on the upper slopes, oil storage, tourism, marine transportation, residential land development, small businesses, and charter boat fishing. There are numerous plans for economic expansion at Kawaihae, particularly within the resort and visitor industry (Ref. 44, 45). Kawaihae has also been proposed as a site for an oil refinery, and Hawaiian Electric Company is investigating a site along northern Kawaihae Bay for a power generating station. The State of Hawaii's implementation of improved marine and land transportation facilities will undoubtedly contribute toward economic growth. The existing commercial harbor contributes both directly and indirectly to the economy of the local area as well as the State by providing governmental revenues, private enterprise profits, and jobs (Ref. 6).

There appears to be little doubt that the economic base of the Kohala area has been and will continue to shift toward a tourist recreation base. In February 1980, for example, there were 407 existing hotel units in the Kohala districts and 3,348 planned (either under construction or announced for future construction) (Ref. 19).

Existing and planned real estate development directed toward vacation, retirement, and second home markets will further accelerate the changing nature of the economic base and put increasing pressures on existing and available recreational and tourist-related facilities. Thus a favorable economic climate for new visitor-related commercial development including commercial sports fishing and other boating related recreational activities is created.

Retail commercial service centers for the Kohala districts are currently concentrated in Waimea and Hawi. Projected hotel development will also include related commercial activities but there will also be new demand for non-hotel retail outlets more convenient to the concentrations of new developments in South Kohala.

Along with hotel and commercial development an increased demand for labor will be created and concurrently a demand for convenient employee housing. Thus, it can be anticipated that a continued shift and growth of permanent resident population to South Kohala and the Kawaihae area will occur. Assuming that all of the planned hotel development is accomplished, and using an employment

		1980 Census Data		1970 Census Data	#Change	%Change
NORTH KOHALA DISTRICT		3,249		3,326	-77	-2.3
Hawi	795		797		-2	-0.2
Kapaau	612		237		375	158.2
Remainder	1,842		2,292		-450	-19.6
SOUTH KOHALA DISTRICT		4,607		2,310	2,297	99.4
Waimea	1,179		756		423	56.0
Remainder	3,428		1,554		1,874	120.6
NORTH KONA DISTRICT		13,748		4,832	8,916	184.5
Holualoa	1,243		-		-	-
Kainaliu	512		-		-	-
Kailua	4,751		365		4,386	1,201.6
Remainder	7,242		4,467		2,775	62.1
SOUTH KONA DISTRICT		5,914		4,004	1,910	47.7
Captain Cook	2,008		1,263		745	59.0
Kealakekua	1,003		740		263	35.5
Remainder	2,903		2,001		902	45.1
KAU DISTRICT		3,699		3,398	301	8.9
Naalehu	1,168		1,014		154	15.2
Pahala	1,619		1,507		112	7.4
Remainder	912		877		35	4.0
PUNA DISTRICT		11,751		5,154	6,597	128.0
Keaau	775		951		-176	-18.5
Mt View	540		419		121	28.9
Pahoa	923		924		-1	-0.1
Remainder	9,513		2,860		6,653	232.6
TOTAL	92,053		63,468		28,585	45.0

SOURCE: U.S. BUREAU OF THE CENSUS, 1980

3.9.2 Economy

Population changes between 1970 and 1980 reflect changing socio-economic conditions and activities. While the South Kohala District population has increased 99.4 percent due to tourist and second home land development and increased industrial activity at Kawaihae, North Kohala population has decreased 2.1 (Ref. 19) percent because of shifting employment opportunities particularly in agriculture; the termination of Kohala Sugar Company operations being the primary factor.

multiplier (including secondary employment) of 1.5 jobs per hotel room (an approximate average of outer island ratios), employment within the Kohala districts can be expected to grow by 5,189 jobs within the foreseeable future, perhaps by the year 2000. This would result in approximately 2,500 to 3,000 new households, depending on the number of jobs per household and the number of current residents who will enter the new labor market.

3.10. RECREATIONAL SETTING

3.10.1. Boat Registration

According to the May, 1983 list of boats for the island of Hawaii, there are a total of 2,751 boats, varying in size from six feet to 50 feet, registered with the Harbors Division. By districts, the distribution is shown on Table 4.

Table 4. Boat Registration

District	No. of Boats
Hamakua, East Hawaii	111
North Hilo, East Hawaii	23
South Hilo, East Hawaii	751
Puna, East Hawaii	341
Kau, East Hawaii	64
North Kohala, West Hawaii	87
South Kohala, West Hawaii	194
North Kona, West Hawaii	1,108
South Kona, West Hawaii	72
TOTAL	2,751

Of the 2,751 boats, 1,461 boats (53%) are in West Hawaii where the population in 1980 is 27,518 persons or 30 percent of the island population. One thousand two hundred ninety (47 percent) are in East Hawaii where the 1980 population is 64,535 persons or 70 percent of the total population (Ref. 43).

3.10.2 Existing Boating Facilities

To satisfy the demands of the boating public, the State has provided, either in dredged harbors, or in complementary facilities at natural coastal bays and estuaries, five small boat harbors throughout the island. These are located at Hilo in East Hawaii and at Keauhou Bay, Kailua Bay, Honokohau and Kawaihae on West Hawaii.

In addition to the harbors, the State has provided for launching ramp facilities at the following locations (Ref. 43):

Keauhou Bay, North Kona, West Hawaii
Kailua-Kona Wharf, North Kona, West Hawaii
Kawaihae, South Kohala, West Hawaii
Puako, South Kohala, West Hawaii
Honokohau Boat Harbor, South Hilo, East Hawaii
Wailoa River, South Hilo, East Hawaii
Kaulana, Kau, East Hawaii
Pohoiki, Puna, East Hawaii

3.10.3 Boating Analysis

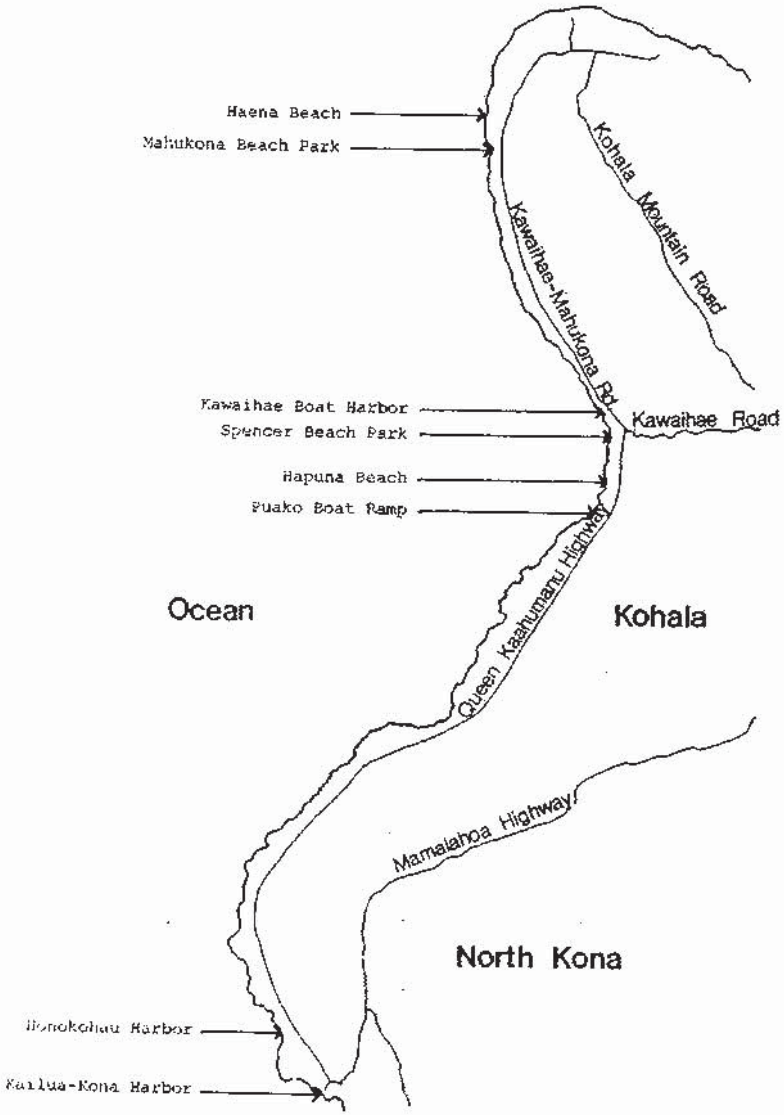
On a boat-ownership-per-population basis, the ratio is 30.5 boats per 1,000 persons for the Island. By district, the ratios are shown on Table 5 (Ref. 43).

Table 5. Boat Ownership Ratios

District	No. of Boats	Population	Boats per 1,000 Persons
Hamakua	111	5,128	21.6
North Hilo	23	1,679	13.7
South Hilo	751	42,278	17.8
Puna	341	11,751	29.0
Kau	64	3,699	17.3
North Kohala	87	3,249	26.8
South Kohala	194	4,607	42.1
North Kona	1,108	13,748	80.6
South Kona	72	5,914	12.2

(Ref. 43.)

Within the tributary area of North and South Kohala, Hamakua, and North Kona, the boat ownership and boat size breakdown is as shown on Table 6. Statistics for North Kona are shown for comparison purposes and also since North Kona is a neighboring district (Ref. 43).



LOCATION OF RECREATIONAL FACILITIES
KAILUA TO MAHUKONA

(REF. 6)

FIGURE 4

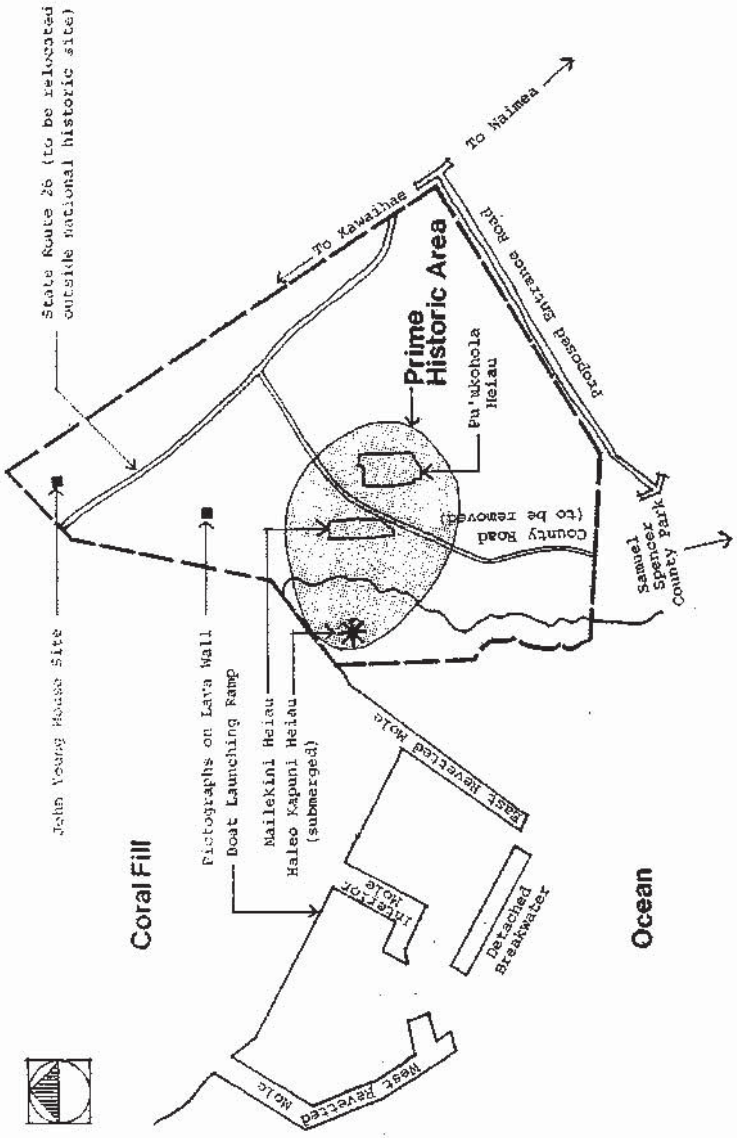
Table 6. Boat Size Breakdown

Boat Size	Tributary Area: North Kohala	South Kohala	Hamakua	Total	North Kona
18' and below	64	127	68	259	474
19' - 25'	23	52	37	112	525
26' - 30'	-	9	3	12	67
31' - 35	-	4	2	6	22
36' - 40'	-	2	1	3	11
41' & over	-	-	-	-	9
TOTAL	87	194	111	392	1,108

(Ref. 43.)

3.10.4. Other Recreation

Public recreation facilities in the tributary area (Figure 4) include Hapuna Beach State Park, three miles south, Kauna'oa Beach, two miles south, Lapakahi Historic Site and State Park, 15 miles to the north, Mahukona Beach Park, 17 miles to the north, and Kapaa Beach Park, 19 miles to the north. Also in the tributary area in the Niulii area is the Keokea Beach Park and Pololu Valley lookout. The Mauna Kea State Park is approximately 60 miles by road to the east of the project site. There are plans to ultimately develop much of the area between Puako and Kawaihae into recreational areas according to the Division of State Parks, Outdoor Recreation, and Historic Sites, Department of Land and Natural Resources. Lapakahi historical site (and the Mahukona boat launching ramp) is 15 miles to the north. Although three surfing sites were identified in the vicinity of the proposed project area by the Hawaii Surfing Survey conducted in 1968, these sites were classified as ancient Hawaiian surfing sites and are not extensively surfed now. The surfing information sheet also stated that the sites offer good or average surfing conditions only 30 percent of the year. A major recreational problem identified by the Hawaii Resources Regional Study was the lack of adequate public access to



RELATIONSHIP OF RECOMMENDED KAWAIHAE SMALL BOAT HARBOR TO PU'UKOHOLA HEIAU NATIONAL HISTORIC SITE

(REF. 6)

FIGURE 5

nearshore areas in the Kawaihae region. Spencer Beach Park, 1,300 feet to the south is heavily used as a camping, swimming, diving, and picnicking beach. Spencer Park is heavily used during peak weekend and seasonal periods. Fishermen have been observed utilizing the commercial harbor for recreational fishing. Water contact sports are probably minimal in the proposed harbor area and adjacent areas due to the presence of several shark species that inhabit these areas (Ref. 6).

The three resort areas, all located south of the harbor, are the Mauna Kea Beach Hotel, located approximately 2.2 miles from the harbor, having 310 rooms with an 18-hole golf course and clubhouse; the Mauna Lani Resort, eight miles from the site, having an 18-hole golf course and clubhouse; and the Waikoloa Beach Resort, ten miles from the harbor, having an 18-hole golf course and clubhouse.

3.11. HISTORICAL/ARCHAEOLOGICAL SETTING

No historical or archaeological sites listed with the National Register of Historic Places lie within the project landfill or water area. Approximately 600 feet to the south, however, is the Pu'ukohola Heiau National Historic Site, a 77-acre area consisting of three ceremonial Hawaiian temples (heiaus), petroglyphs, and the John Young Homesite (Figure 5). Two of the temples, the Pu'ukohola Heiau and the Mailekini Heiau, are located 700 feet from the project site near the beach at the mouth of the Makeahua Gulch. The third is the Haleokapuni Heiau, which is believed to be submerged and buried offshore, its exact location having been lost.

The Pu'ukohola Heiau is the largest of the three, dominating the site 135 feet above the nearby beach. It is a massive lava-rock structure measuring 225 by 100 feet which is walled on the ends and mauka side by 40- to 50-foot sloping walls. The seaward side is open with three long, narrow terraces extending the entire length of the heiau. The structure is partially restored and in excellent condition, walks and steps rendering it accessible to the public.

The Pu'ukohola Heiau was built by King Kamehameha, his chiefs and his workers, in 1791 for the war god Kukailimoku in order to win his favor and conquer all of the Big Island of Hawaii. It was during and after this time that King Kamehameha the Great rose in power, eventually to become the first king in Hawaii to rule all of the major islands in the chain. Because Pu'ukohola played a significant part in Kamehameha's accumulation of power, the temple is listed in the National Register of

Historic Places. During Project Tugboat detonations, precautions were taken to monitor and minimize structural damage to the heiau, and the explosions did not appear to cause any visible damage (Ref. 2).

The Mailekini Heiau, immediately below Pu'ukohola, was erected earlier as a large, high-walled, court-type luakini (state or royal) heiau and represents the inter-chiefdom and inter-island warfare of the period before 1780 when it served as the principal temple of the ruling chief Kohala. The main platform measures 300 by 400 feet, but only the partially restored ruins remain today.

The Haleokapuni Heiau was dedicated to the shark gods and is said to have been used by Kamehameha as a heiau for feeding sharks. The heiau is now submerged under silt, although positive evidence of a structure and its exact locations is lacking. Personal accounts recall a structure about 30 meters offshore and directly in line with the Pu'ukohola and Mailekini Heiaus. During the construction of the large harbor, a quarry was opened in the uplands between the Makeahua and Makahuna gulches. The size and configuration of the harbor resulted in the relocation of the gulches which now converge between the harbor fill area and the proposed historic site. It is believed that sediment from the quarry operations buried the Haleokapuni Heiau immediately following the period of major construction (1957-1962). Recent archaeological surveys have failed to produce the presence of any subsurface structures in the area. The site currently an area of concentrated shark activity, which reinforces the historic significance of the shark heiau.

Directly below the Mailekini Heiau is the large, five-foot-high upright stone known locally as "Kamehameha's chair." The seat was said to be used by Alapai-Kupalupalu-mano, one of Kamehameha's staff chiefs and also by Kamehameha as he observed the proceedings at Haleokapuni Heiau, which the seat faces.

Other historical features within the proposed national historic site include pictographs recently discovered on the lava outcroppings north of the Pu'ukohola Heiau. The archaeological or historical value of the pictographs has not yet been established.

Further to the north, on the other side of State Route 26 and within the proposed historic site, lies the John Young Homesite. John Young was a British seaman who took part in Kamehameha's many battles and represented the alii (royalty) in their dealings with foreign visitors. Young remains an especially important figure in Hawaiian history because he was associated with events which led Hawaii

into the American sphere of influence. Little remains of the homesite except the foundations of two western-style houses and two Hawaiian-style houses. The homesite reflected the first European-type structures built in the Hawaiian Islands, and is considered a "transition" site. The remaining structures have been damaged over a period of time as a result of earthquakes, highway traffic vibrations, and blasting operations from the nearby quarry (Ref. 14).

Plans for the Pu'ukohola Heiau National Historic Site include providing an orientation and cultural center with walks and trails leading to the heiaus and other related exhibits. Plans also call for relocating Route 26 outside the historic site and providing parking and an entrance road connecting Route 26 and Spencer County Park (Ref. 3).

3.12. VISUAL SETTING

The proposed project site currently is seen from surrounding sites as mostly barren, flat white coral fill area with a hedgerow of coconut palms and beach naupaka, the manmade shoreline being constructed of volcanic boulders. The site views and is seen from the opposite shores to the south of the curving Kawaihae Bay, including Spencer Beach Park down the shore to the Mauna Kea Beach Resort and the existing Kawaihae deep-draft harbor to the west. The site is also in close visual proximity to the Pu'ukohola National Historic Site, including the Mailekini and Pu'ukohola Heiaus.

Expanded site views include the surrounding volcanoes of Mount Hualalai to the south, Mauna Kea to the southeast, and the Kohala Mountains to the northeast.

3.13. LAND USE PLANS, POLICIES AND CONTROLS

3.13.1 Land Use

The State Land Use Designation at the Kawaihae Boat Harbor is Urban (Figure 6). Nearby Pu'ukohola and Mailekini Heiaus of the Pu'ukohola Heiau National Historic Site are in the Conservation district (Ref. 43).

3.13.2. Zoning

The Hawaii County zoning calls for MG, General Industrial, RM, Multiple Family residential and O, Open uses at the harbor (Figure 7). The General Industrial use area lies on the northwest side of the boat harbor and extends to the two sides of the Kawaihae Deep-Draft Harbor.

On the northeasterly side of the harbor there are two areas with a total area of approximately 14 acres calling for Multiple Family Residential use.

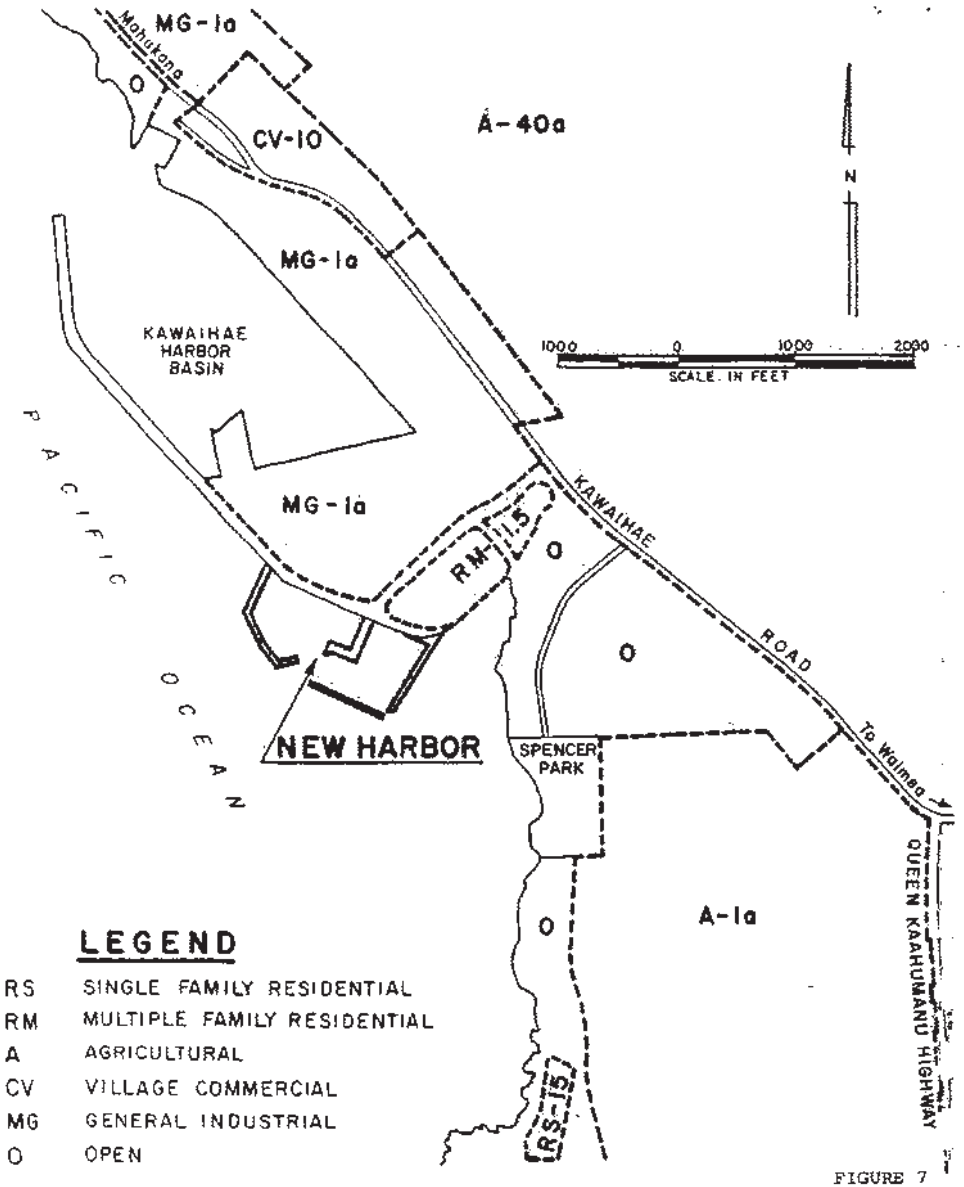


FIGURE 7

ZONING MAP

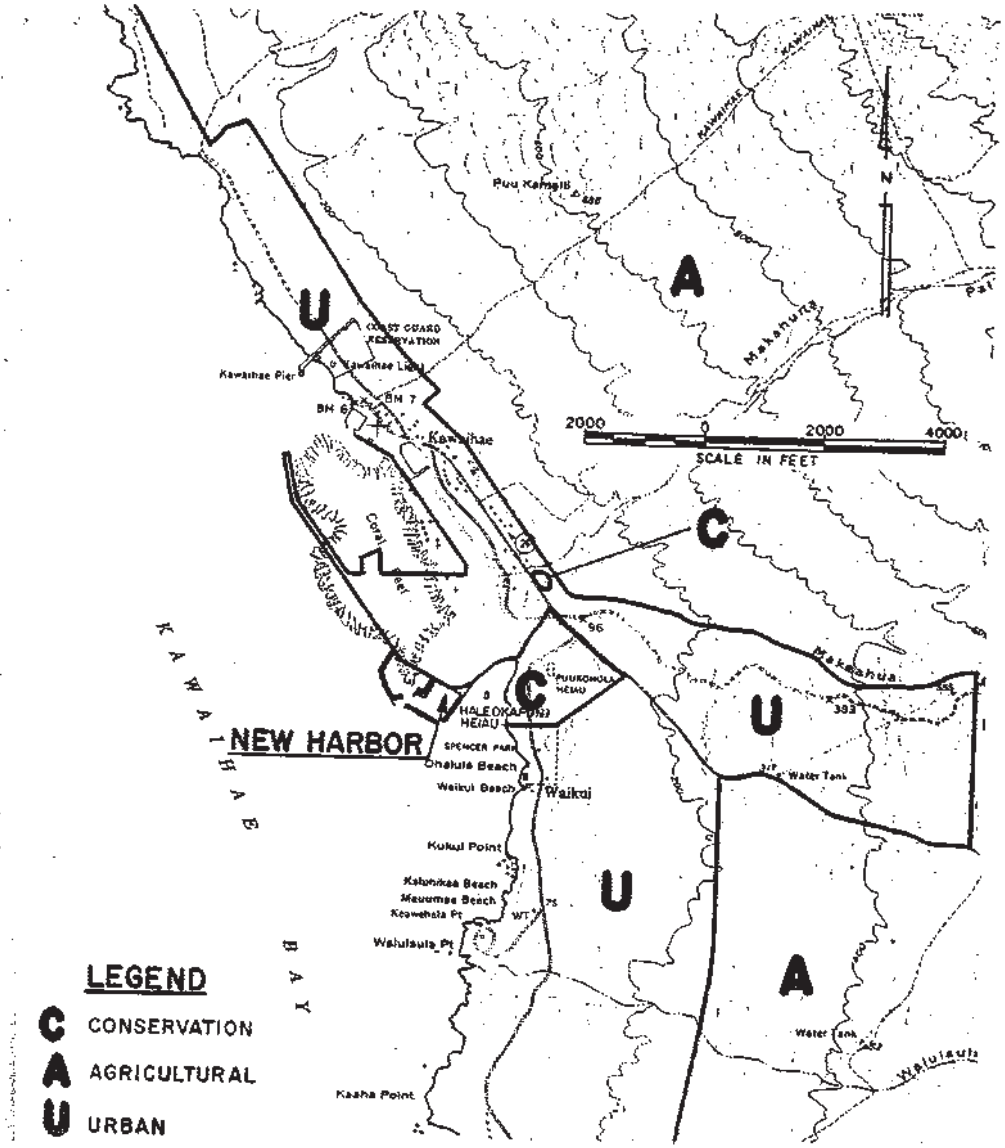
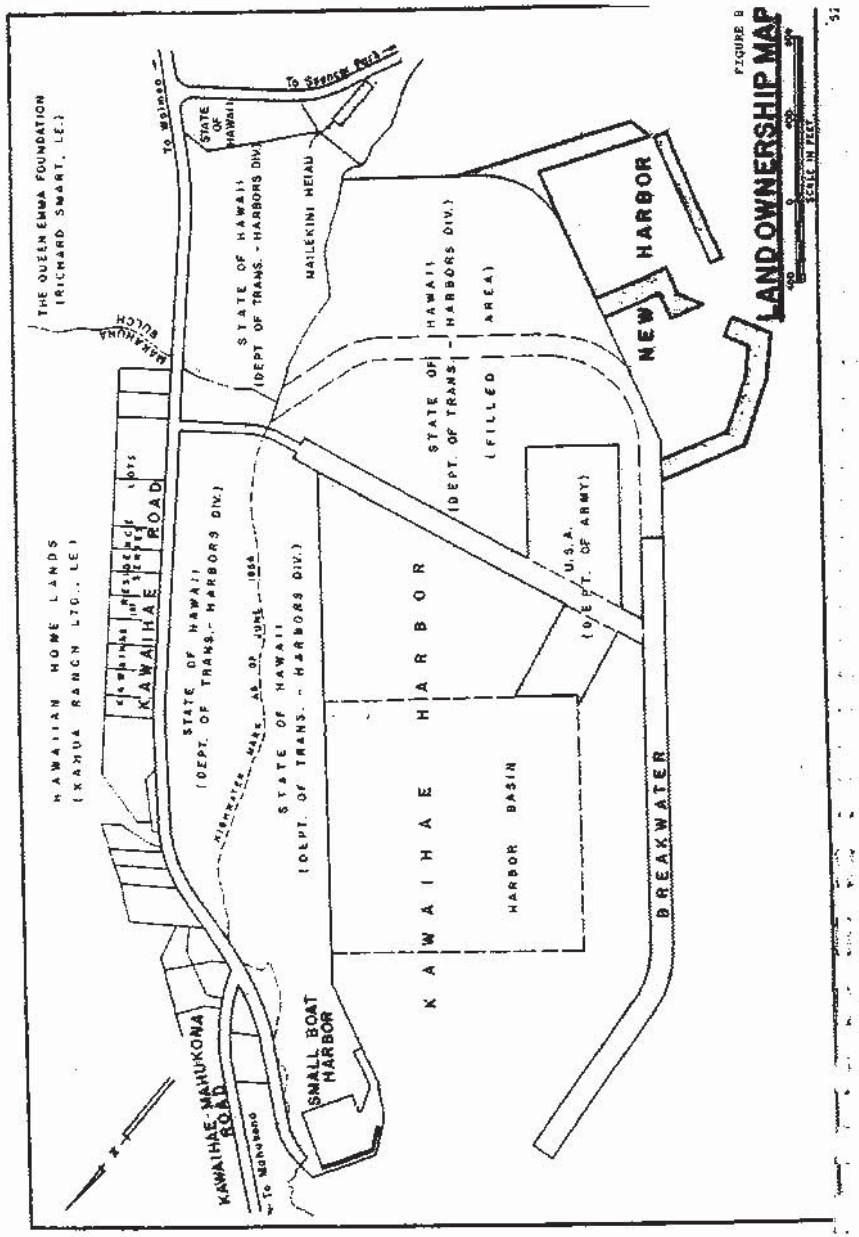


FIGURE 6

LAND USE MAP



Separating the General Industrial and Multiple Family Residential uses is a strip of Open area. This strip extends along the coastline and up to the public road leading to the County's Spencer Park.

Harbor facilities and uses are permitted within a General Industrial district. In a Multiple Family Residential district, the Ordinance is explicit in not allowing harbor facilities. However, the Ordinance is vague in an Open district. If the Planning Department considers harbor facilities and uses as recreational, as they did at Honokohau Harbor, then harbor activities within the Open district may not be a problem. To ensure that land usage will not be a problem in the future, this development plan recommends that steps be taken to rezone the Multiple family Residential and Open areas to General Industrial use (Ref. 43).

3.13.3 Land Ownership

Except for an 6.84-acre portion owned by the United States of America, all of the land seaward of Kawaihae Road is owned by the State of Hawaii, Department of Transportation, Harbors Division (Figure 8) (Ref. 43).

3.13.4 Special Management Area

The project site is within the boundaries of the Hawaii County Special Management Area (SMA), the site occupying the area within 40 feet of the shoreline. Thus, a Special Management Area permit is required by the County.

3.13.5 Related Plans

A. State Recreation Plan
The proposed deep-draft harbor and the related activities are in compliance with the State Recreation Plan which recommends improvement and expansion of coastal facilities such as the proposed project.

B. Kawaihae Deep-Draft Harbor
Kawaihae Harbor will require additional expansion beyond 1984 primarily to accommodate increased inshipments of inter-island cargo (some of which is expected to be rerouted from Hilo Harbor). The early development of RO/RO capability for containerized inter-island cargo is also a recommended improvement at the harbor.

3.14. RELATED PUBLIC AND PRIVATE PROJECTS

The Master Plan for the improvement of Kawaihae Harbor as proposed by the Department of Transportation, but not

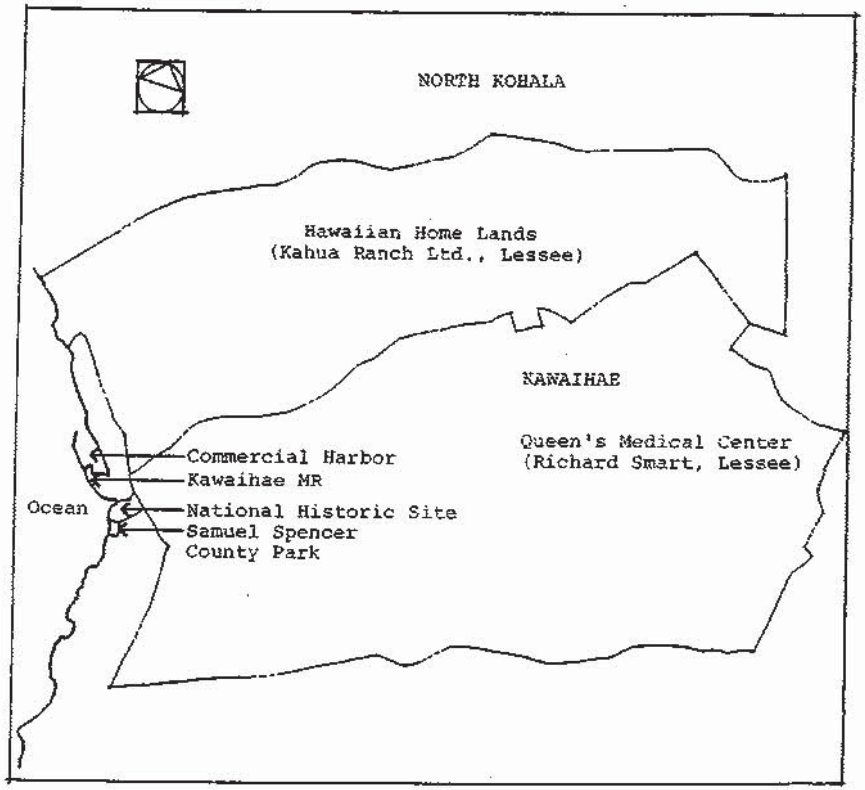
yet been approved, recommends the following development priorities between 1984 and the year 2000 (see Figure 10):

- Construction immediately after 1984, of a 450-foot barge berth and RO/RO ramp on the south end of the overseas terminal wharf, and relocation of all inter-island containerized and breakbulk cargo operations to that area. This facility would initially consist of three breasting dolphins for the mooring of barges, a RO/RO ramp, two acres of paved backup areas, and possibly one of the transit sheds relocated from the existing inter-island terminal wharf;

- Paving of an additional three acres at the relocated inter-island terminal between 1990 and 1995; and

- Construction of a permanent 450-foot wharf extension for the inter-island terminal between 1995 and the year 2000.

As mentioned in section 3.9.2, the economic base of the Kohala area is shifting toward a tourist/recreation base. Existing and planned real estate development directed toward vacation, retirement, and second home markets will further accelerate the change in the socio-economic fabric. With this additional infiltration of hotel and commercial development into the Kohala area, an increased labor force will cause secondary growth of the permanent residential population. This current trend in tourist and permanent residential population growth will supplement the need for the small boat harbor and will further stimulate commercial development of harbor-related and other community-related facilities. The recreational facilities in the Kohala region, including the Pu'ukohola National Historic National Site, will have additional pressures placed upon them due to increased population.



LAND OWNERSHIP AND LESSEES IN THE VICINITY OF KAWAIHAE

(Other owners and lessees of small parcels are included within the large parcels shown, but are not called out.)

(REF. 6)

FIGURE 9

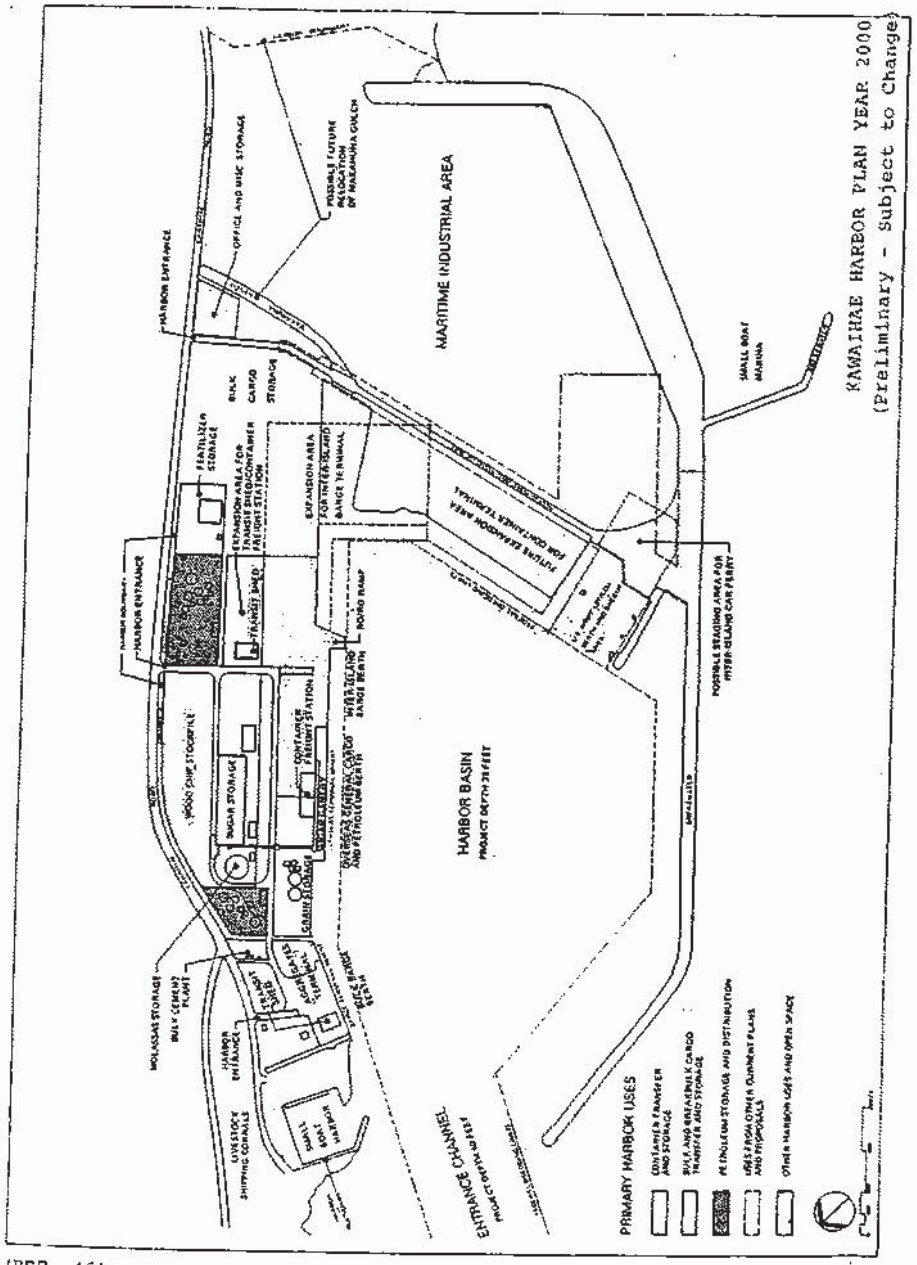
4. RELATIONSHIP OF THE PROPOSED ACTION TO LAND USE PLANS, POLICIES, AND CONTROLS FOR THE AFFECTED AREAS

4.1. LAND USES AND ZONING

A narrow strip along the Kawaihae coastline is designated as an Urban District by the State of Hawaii. To the mountainside (mauka) of this strip the land is designated as an Agriculture District by the State of Hawaii (Figure 6). Land uses in the Kawaihae Urban District consist of a commercial harbor, an industrial area, a National Historic Site, a County Park, and small residential lots mainly along the highways, and a residential development, Kawaihae Village. The Agriculture District consists mostly of vacant land use for grazing. Land south of the commercial harbor and seaward of the highway is open land with non-commercial forest. Samuel Spencer County Park is located in the midst of this land. Hapuna Beach Park is three miles south and Kaunao Beach is two miles south and has public access. There is boat landing at Puako about four miles south of Kawaihae, and there are plans to develop much of the area between Puako and Kawaihae into recreational areas, according to the State Parks Planning Department. The new Honokohau Boat Harbor is 35 miles away while the Lapakahi historical site and the Mahukona boat launch are 12 miles north.

Some minor development in the area surrounding the harbor has already occurred such as the existing small community of Kawaihae at the northwestern end of the harbor along the highway, and Kawaihae Village located near the intersection of Kaahumanu Highway 19 and Kawaihae Road (Highway 27). On approximately 2,000 acres of land located between the Mauna Kea Beach property and the commercial harbor, resort/urban areas have been developed by private developers. These areas, namely Mauna Lani and Waikoloa Beach Resort, include residences, hotels and condominiums and golf courses. Their development has been stimulated by the success of nearly Mauna Kea Beach Hotel.

The Draft General Plan Revision Program of Hawaii County, 1978 (Ref. 50) states that the coastal area from Kawaihae to Anaehoomalu Bay is suitable for tourist-related development. The project resort use pattern in that document indicates a County designated Alternate Urban Expansion area around Kawaihae. As such, the extent of the existing Alternate Urban Expansion just north of Kawaihae Harbor will be reduced (#22) (see Figure 11) and



(REF. 46)

FIGURE 10

moved closer to the central core (#23). An area for future Alternate Urban Expansion will be retained around the harbor to provide for more support uses. Similarly, the Alternate Urban Expansion mauka of the Queen Kaahumanu Highway (#24) will be deleted and incorporated as part of a redesigned Alternate Urban Expansion at the Kawaihae Road-Kaahumanu Highway Intersection (#23b).

Previously existing Low and Medium Density Urban Resort and Open County designations (#23b and #25) were originally considered for several long-term private development plans for the area. Proposed changes to Alternate Urban Expansion designations, however, are intended to provide for timely reassessment and better flexibility over the long-range application of specific urban land uses.

In summary, the proposed changes within the coastal resort destination are deemed to further promote the General Plan goal of guiding resort functions by centralizing and containing resort uses in an orderly manner (Ref. 50).

The proposed small boat harbor will conform with Federal, State and County land use plans, policies, and controls and there will be no conflicts or inconsistencies with these plans. Factors in the area currently favor urban or resort development and it appears the area will continue to develop further as an urban/resort area (Ref. 50).

4.2. COASTAL ZONE MANAGEMENT PROGRAM

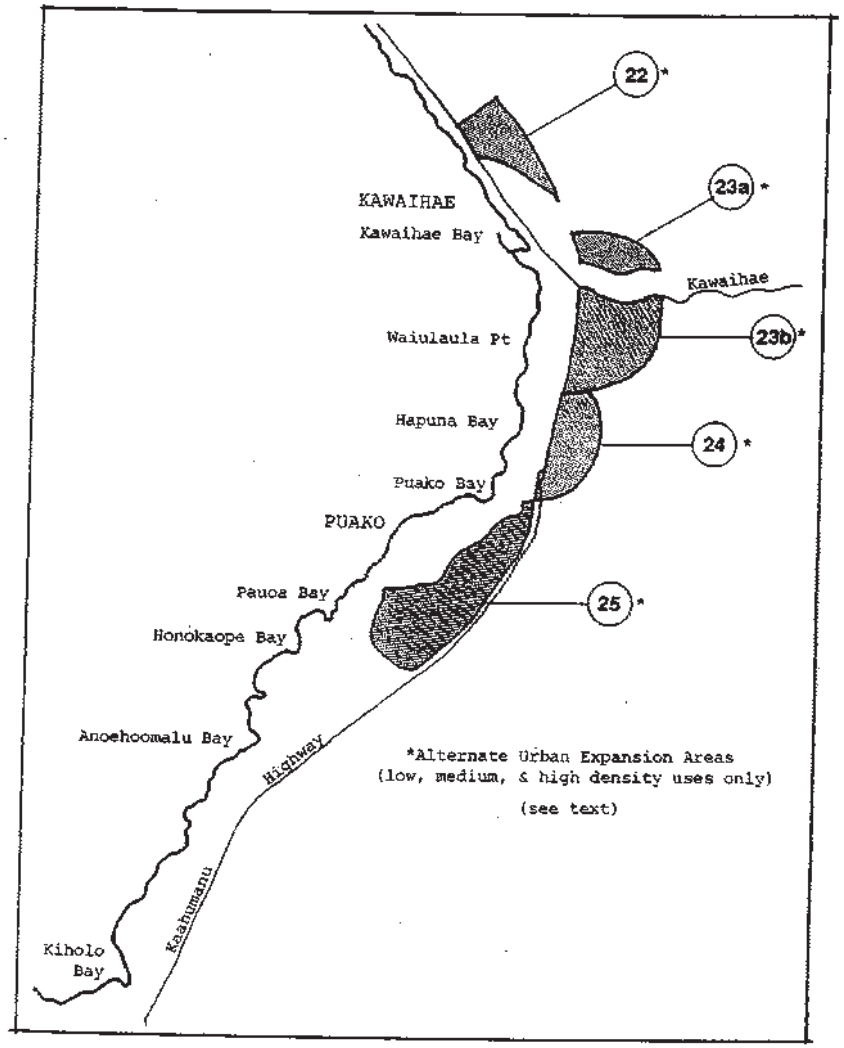
The project is subject to the Hawaii Coastal Zone Management Program requirements. The project must also comply with Hawaii County Special Management Area Permit requirements.

4.3. STATE COMPREHENSIVE OUTDOOR RECREATION PLAN

As stated in the State Comprehensive Outdoor Recreation Plan, there is a shortage of mooring spaces for the island of Hawaii. Kawaihae Small Boat Harbor will satisfy the needs for some of these mooring spaces.

4.4. LAND OWNERSHIP AND SURROUNDING AREAS

The existing commercial deep-draft harbor and the fill and water areas of the proposed boat harbor are owned by



COUNTY OF HAWAII GENERAL PLAN -
LAND USE PATTERN ALLOCATION GUIDE MAP**

**(Partial map excerpted from original map prepared by Planning Department, County of Hawaii. Ordinance 439 as amended, Ordinance 456, 475, 484 and 538, February 7, 1980.)

(REF. 50)

FIGURE 11

the State of Hawaii (Figure 8). The Pu'ukohola National Historic Site to the south of the harbor is owned by Queen's Medical Center (52.2 acres), the State of Hawaii (18.07 acres), and the offshore water area by the State of Hawaii. Samuel Spencer Park, bordering the historic site on the south is owned by the County of Hawaii. The land bordering the harbor on the east is owned by the Hawaiian Home Lands and is leased to Kahua Ranch, Ltd. Hawaiian Home Lands' Kawaihae property was originally crown land and was acquired through the Hawaiian Home Lands Act of 1920 enacted by the U.S. Congress. The land south of the harbor is owned by Queen's Medical Center (10,000 acres), and the minority of this land is leased to Richard Smart (owner of the Parker Ranch). This land was originally crown land and was bequeathed to the Medical Center by Queen Emma Kaleleonalani Rooke (Figure 9). Some small parcels are owned or leased by other individuals or organizations in both the Hawaiian Home Lands parcel and Queen's Medical Center parcel.

5. PROBABLE IMPACT OF THE PROPOSED ACTION ON THE ENVIRONMENT

5.1 INTRODUCTION

In evaluating probable impacts, actions and activities associated with any or all of the alternates are considered separately. Impacts which vary because of location or extent of the action have been identified and discussed.

Secondary impacts of separate actions are included in this section and secondary impacts of cumulative actions associated with each alternate are discussed in Section 7.6.

5.2 IMPACTS ON TERRESTRIAL GEOLOGY AND SOILS

Grading operations will modify existing terrestrial land forms within the project area to accommodate the various proposed facilities and parking areas. There will also be trenching and grading operations associated with utility installation and construction of onshore facilities.

There will be a secondary impact created by quarry operations for offshore construction fills. Approximately 40,000 cubic yards of rock will be required. Previous quarrying for Kawaihae harbor construction has taken place at Makeahua quarry which is one potential source. Other sources are currently being investigated by the U.S. Corps of Engineers (see section 2.4.12). Quarrying operations involving blasting could have an effect on nearby structures, including historic/archaeological features (see Section 5.11). Noise from blasting and transportation would impact any nearby residential areas. Downstream sedimentation and visual unattractiveness are also potential impacts of any quarrying operation. Until the source of rock is finally decided it is not possible to evaluate specific impacts. If the source is Makeahua Quarry, there are potential adverse impacts to nearby historic and recreational facilities.

5.5 IMPACTS ON AIR QUALITY

Ambient air quality will be temporarily degraded by dust and construction vehicle emissions during construction.

Onshore improvements and landscape of existing coral fill areas will have a long-term beneficial impact on air quality by reducing wind-generated dust from this area.

There will be an insignificant long-term impact from vehicular emissions and operational activities due to consistent trade winds which quickly dissipate any potential airborne contaminants and noxious odors normally associated with such maritime activities.

5.6. IMPACTS ON NOISE CONDITIONS

Construction activities will create short-term and localized noise conditions. There are few residences within the area to be affected and no known wildlife habitats which may be adversely affected by such noise.

There will be significant noise generated by quarrying and blasting. The location of the quarry site will determine the significance of this impact.

Operations of the facility will create a long-term noise impact from power boats, increased vehicular traffic, and other onshore activities.

5.7. IMPACTS ON MARINE SETTING

5.7.1. Impacts on Bathymetry and Oceanography

The natural bathymetry of the project area will be permanently altered by the filling of some reef areas for harbor structures and the dredging of the access channel to the eastern basin. It may be necessary for the State of Hawaii to further alter the bathymetry of the small boat harbor area by additional dredging to provide adequate depth clearance for boats moored in the eastern basin, which now has an average depth of four feet. Sedimentation rates at the mouth of Makeahua Gulch may be modified because the location of the completed harbor may further restrict the existing poor circulation. Current studies (Ref. 11) indicate that Spencer Beach Park sand reservoirs will not be affected by the presence of the small boat harbor.

Protective harbor structures may reduce the amount of silt entering the harbor from Makeahua Gulch. Accurate prediction of the siltation rate within the completed small

5.3 IMPACTS ON GROUNDWATER HYDROLOGY, WATER QUALITY AND DRAINAGE

Local runoff quantities will be increased and concentrated due to onshore paving structures. Because of high percolation in adjacent unpaved areas which will receive runoff and the relatively low precipitation rate, insignificant increases to ocean discharges are expected. Groundwater quality will be degraded by runoff from paving, structures and landscaping which are likely to contain small quantities of pollutants such as petroleum waste, chemicals from paint and solvents, and nutrients, insecicides, and herbicides from landscape improvements. Groundwater within the areas scheduled for construction is not currently suitable for domestic use and impact therefore is considered insignificant. Additionally groundwater may be impacted by effluent from package waste water treatment facilities.

The extent to which marine waters will eventually be impacted by groundwater interaction is expected to be minimal because of very low interchange rates due to minimum groundwater head and low intertidal exchange (Ref. 6).

5.4 IMPACTS ON TERRESTRIAL BIOLOGY

Limited vegetation exists within a small portion of the project onshore area consisting of small weeds, coconut trees, and naupaka groundcover. Nearly all of the onshore area consists of bare coral fill material. The palm trees and naupaka are to remain and are part of the State's previous landscape development for the proposed small boat harbor; consequently there will be no significant adverse impact to vegetation nor will there be any effect upon the remainder of the adjacent barren landfill area. Extensive landscaping is planned by the State during the final phases of harbor completion, which should help reduce local transport and deposition of windborne dust in the small boat harbor area. Urban birds, i.e. those attracted by man's activities, will visit the small boat harbor area during construction and will visit and inhabit the completed small boat harbor. The few marine and shore birds occasionally found in the harbor area will move to less disturbed areas during both construction and use of the harbor. There are no Federally- or State-listed threatened or endangered terrestrial species that utilize the project area as a habitat (Ref. 6).

(0.02 to 0.1 knots). The use of a culvert or channel would not improve circulation in either the existing commercial deep-draft harbor or in the proposed small boat harbor because of insufficient hydraulic head between the existing deep-draft basin and the proposed harbor area, resulting in insignificant volume exchange (Ref. 21). The two dredged channels and the turning basin within the harbor will provide increased water volume which may improve the internal circulation and flushing characteristics of the harbor. Although risks of trash accumulation and fuel spills would increase, they would not be any more significant than for other harbors in the State and risks can be minimized or avoided by proper and alert harbor maintenance and management by the local government. Furthermore, State law prohibits spills and dumping in State harbors. In comparison, water quality in the adjacent deep-draft harbor is considered excellent by researchers (Ref. 7) who have conducted a reconnaissance-level survey of biota and water quality in conjunction with past circulation studies for the Kawaihae Small Boat Harbor project (Ref. 6).

Onshore landscape development and associated runoff may increase nutrient levels within poorly circulating areas. Extensive increases in nutrient levels could lead to algae formation detrimental to marine ecosystems.

Operation of power boats and related activities may increase the level of certain chemicals associated with fuels, paints and solvents.

The State will have the responsibility for disposal and treatment of sanitary wastes, vessel bilge, and vessel ballast water discharges in the completed harbor.

5.7.4. Impacts on Marine Biology

Approximately 33 acres of the proposed small boat harbor site are included within the 256 acres of reef already destroyed as a result of construction during the deep-draft harbor and Project Tugboat projects. Construction of the proposed small boat harbor is expected to have a minimum impact upon the existing depauperate biota within the project area. Most of the small number of coral colonies and macro invertebrates within the boundaries of the project site will perish during dredging and construction activities, while the small population of reef fishes within the boundaries of the project site will either leave the site or perish. The rocks and interstices of the completed harbor protective structures will provide a new environment for possible colonization by motile and sessile biota. Turbidity during dredging operations can extend into adjacent areas and possibly affect marine life. In

boat harbor is difficult to assess; however, it is anticipated that maintenance dredging by the Federal government may be performed every five years. Quarrying, if at the Makeahua Quarry, would create particulate matter as a result of blasting and equipment operating in the area. These particulates, if transported into the waters off the mouth of Makeahua Gulch by storm runoff, would tend to aggravate the siltation problem.

Proposed actions will have no significant effect upon the offshore oceanographic regime. In the nearshore area of the project, the southeastern mole of the completed small boat harbor may tend to act as a barrier and may slow and deflect the present wind-induced currents. The deflected currents may lead to minor increased or decreased mixing of the waters within the new embayment created by the southeast mole of the small boat harbor. No evidence was found to indicate that development of the proposed small boat harbor, including additional structures adjacent to the previously constructed breakwater and launching ramp, would noticeably affect current patterns adjacent to Spencer Beach Park (Ref. 11). The waters within the completed harbor may have a different open ocean/harbor exchange rate than the preconstruction exchange rate for the area. The two deep channels and basin within the harbor may increase the volume of exchange (Ref. 6).

5.7.2. Tsunami Impacts

The proposed harbor, as designed, will mitigate the potentially hazardous effects of tsunami action. Revetted moles, breakwaters and wave absorbers will lessen the impact of tsunami wave action.

5.7.3. Impacts on Marine Water Quality

Water quality conditions at the project site will be temporarily degraded during dredge and fill operations as a result of suspended sediments generated. The dredging and filling operations may release nutrients from the disturbed sediments, which may increase the natural productivity rate of plankton. It may also increase the biochemical oxygen demand rate, decreased dissolved oxygen levels and reduce light penetration through the water. The above conditions would be temporary during construction of the harbor and the harbor may return to preconstruction conditions after the completion of construction.

The completed harbor protective structures are not expected to significantly degrade the already poor flushing characteristics of the harbor area. The existing currents are wind-induced and are typically of very low velocity

5.8. IMPACTS ON INFRASTRUCTURE, UTILITIES AND SERVICE SYSTEMS

Transportation of materials for the construction of the small boat harbor will temporarily increase the amount of construction-related traffic within the project area. The completed harbor will create a permanent traffic increase in the area by employees and harbor users. If the nearby Makeahua Quarry is utilized for obtaining armor rock for the project, then some new dirt roads will be constructed halfway between the John Young Homestead and the two heiau in order to minimize any project-generated truck vibrations in the historic area. It is possible that some of this ground vibration will be transmitted into the homestead and heiau areas; however, it will certainly be of less magnitude than the vibration now caused by heavily loaded trucks using State Highway 27 which passes within 50 feet of the John Young Homestead.

Indirectly, the small boat harbor will provide residents with greater access to shoreline areas which are inaccessible by land. The Hawaii Water Resources Regional Study (Ref. 36) has tentatively identified inadequate access to nearshore marine areas as an important factor in the Kawaihae region.

Water transportation utilizing the existing deep-draft harbor will be beneficially impacted by the relocation of small boat traffic.

Excavations for installation of telephone and power poles and water lines will be made in the project area. Water turbidity or fugitive dust may result during these excavations. Waste containers of adequate number and size will probably be distributed throughout the small boat harbor area and collection schedules and facilities will be necessary to efficiently control litter.

There will be an impact on potable water supplies during and after construction. If extensive landscape development requiring irrigation occurs, the long-term impact will be more significant although brackish groundwater and treated effluent could be used to reduce demands on domestic water. There is adequate capacity in existing systems to handle development as proposed.

addition, the planned maintenance dredging within the proposed facility at five-year intervals may be frequent and severe enough to adversely affect or disrupt recolonization processes by marine life.

Existing biological conditions within the project area are not expected to improve significantly since the physical factors that encourage biological recovery of the coral community appear to be absent. A completed small boat harbor may be unfavorable for biological recovery unless existing sedimentation stresses are eliminated or mitigated. Elimination or mitigation of these stresses (either singly or in various combinations) may contribute to the improvement of the marine environment in the project area and possibly provide suitable conditions for the recruitment of biota from the non-affected areas surrounding the project site. Candidate recruitment species for the project site, if improved ecological conditions permit, would include those species previously observed and reported by the State and private researchers. A completed harbor may act as a nursery area for Nehu as in other Hawaiian harbors. The completed harbor with its additional boating, increased population, and onshore recreation will adversely affect shark breeding and spawning ground near the project. However, it is predicted that the sharks will return to the area following construction, as they did after the construction of the deep-draft harbor. Silt laden water does not seem to repel the sharks and may aid in their predatory activities (Ref. 7). Although the completed harbor with its full complement of approximately 300 vessels will almost double the number of boats utilizing the Kona Coast fishing grounds, the increased fishing pressure will be insignificant when compared to the vast potential fish resources present along the 100-mile Kona Coast of the island of Hawaii (Ref. 6).

It is suspected that dredging activities increase the incidence of ciguatera, a disease which results from the eating of fish containing ciguatoxin, a poison that acts on the nervous and digestive systems. Although sometimes fatal to humans, the disease's symptoms include vomiting, diarrhea, tingling of the lips, mouth and fingertips, itching of the skin, loss of motor ability, and reversal of temperature sensation. It is believed that the source of the toxin is a microscopic algae (Gambierdiscus toxicus) that settles on larger algae that is eventually consumed by fish. The toxin then becomes concentrated in the fish that, when eaten, causes the symptoms of ciguatera. At the present time, studies and monitoring of the disease are being undertaken to further investigate the disease.

MARITIME AND FISHERY ACTIVITIES INCOME

ACTIVITY AREA	APPROXIMATE AREA, in Sq. Ft.	RENTAL RATE, per Sq. Ft. per Year	AMOUNT, per Year
Charter and Cruise Facilities	19,950	$ 0.58	$ 11,571.00
Shops and Restaurant	58,800	0.53	31,164.00
Boat Club	61,000	0.48	29,280.00
Ice-Fish Dock and Ice Plant Land Area	5,700	0.58	3,306.00
Fuel Service Docks and Fuel Tanks Land Area	6,600	0.58	3,828.00
TOTAL	152,050		$ 79,149.00

The approximate area figures above include the pavement areas adjacent to the activities.

MOORING INCOME

BOAT LENGTH	BERTHS AT KAWAIHAE	HARBOR CLASS I RATE	HARBOR CLASS I INCOME	HARBOR CLASS II RATE	HARBOR CLASS II INCOME
25'	48	$2.05	$ 2,460.00	$1.50	$ 1,800.00
30'	66	2.05	4,059.00	1.50	2,970.00
35'	60	2.05	4,305.00	1.50	3,150.00
40'	56	2.05	4,592.00	1.50	3,360.00
50'	42	2.05	4,305.00	1.50	3,150.00
65'	19	2.05	2,531.75	1.50	1,852.50
TOTAL PER MONTH			$ 22,252.75		$ 16,282.50
TOTAL PER YEAR			$267,033.00		$195,390.00

In addition to the above, mooring charges for use of the ice-fish dock and fuel service docks should be levied on the operators. Based on mooring rates for harbor class I and II the revenues amount to:

Since existing infrastructure is adequate to accommodate the proposed improvements, there will be no significant impact on existing utilities. Additional demands on drainage and waste water systems will be mitigated by proposed facilities such as construction of dry wells and a sewage treatment plant.

There will be no significant adverse impact on current fire, police and other social or educational services since existing services will be adequate with the implementation of the development plan. However, present fire fighting capacity, i.e., availability of adequate water, is inadequate in the Kawaihae harbor area.

5.9. SOCIO-ECONOMIC IMPACTS

The project will provide jobs during the construction phase of the project and at the quarry site. Operation of a small boat harbor will provide only one or two permanent positions which may be integrated with similar administrative, maintenance and security positions already existing at the State-operated deep-draft Kawaihae Harbor (Ref. 49). By providing a greater number of safe moorings and other associated facilities for both private and commercial fishing and other boats, the harbor could stimulate the development of new or the expansion of existing marine-related businesses such as dive shops, glass-bottom boat tours, charter tours, marine and fishing supply stores, marine fuel stations, dry docking interests (boat repair and manufacturing), fish markets, restaurants, and boat sales and rentals. The economic effects of these possible developments should be felt primarily within the Kawaihae area. The transfer of existing small craft from the commercial port to the proposed small boat harbor will provide more space for marine transportation enterprises and increasing the capacity for commercial shipments to and from the Kawaihae area. In addition, the amount of conflicting small boat traffic within the commercial port will be greatly reduced.

Economically beneficial impacts (income) would offset both the environmental effects of the proposed and the actual cost of construction, which is presently estimated to be approximately $18,502,700. Income includes revenues from various sources, summarized as follows:

5.10. RECREATIONAL IMPACTS

Additional recreational facilities and activities will be generated by the 291-boat harbor. The current unfulfilled demand for 146 berthing spaces will be satisfied and approximately 145 unused berthing spaces will still be available to meet future demand. Navigational aids and safe berthing areas will reduce the likelihood of marine hazards and accidents associated with recreational boating in the area. Boating activity generated by construction and use of the harbor may temporarily or permanently force sharks out of the project area into the Spencer Beach Park area, possibly impacting its use as a recreational water sports area (Ref. 6).

Public use of the historic site can be expected to increase once access and aesthetic improvements are made. Presently gill nets are set in the northern portions of the survey site (biotopes I and II), and hook-and-line fishermen sometimes work through the kiawe trees to fish from the shoreline. The fish species taken most frequently by these fishermen are papio (young of several species of ulua or jacks), mullet, and moanao (Parupeneus multifasciatus). Spear fishermen are common but their catch rates appear to be very low compared with the catch in areas north or south of the site.

Greater use of the intertidal zone is expected with increased public awareness of the historic site and heavier use of the neighboring County park. The organisms in this zone and subtidal areas are relatively resistant to non-consumptive use and should be protected to the limits of the survey site, although some fishing could be permitted (Ref. 37).

5.11. HISTORICAL/ARCHAEOLOGICAL IMPACTS

In consultation with the State of Hawaii Historic Preservation Officer and acting pursuant to Section 106 of the National Historic Preservation Act of 1966 and 39 CFR Part 800 (39 FR January 1974), the proposed plan of improvement was preliminarily evaluated for its effect on the five features of the Pu'ukohola Heiau National Historical Site. A no-effect determination was established by the State Historic Preservation Officer for the underwater Haleokapuni Heiau (Ref. 47). Following preliminary consultation with the National Park Service, there is a possibility that blasting for breakwater construction rock in the adjacent Makeahua Quarry would adversely affect the stability of Pu'ukohola and Mailekini Heiau.

Ice-Fish Dock

1 x 65' x $2.05 = $133.25 per month or $1,599.00 per year

1 x 65' x $1.50 = $ 97.50 per month or $1,170.00 per year

Fuel Service Docks

4 x 65' x $2.05 = $533.00 per month or $6,396.00 per year

4 x 65' x $1.50 = $390.00 per month or $4,680.00 per year

Indirect or secondary socio-economic benefits may result from the accessibility of the small boat harbor to the visitors to the region. Sports fishing, tours and other charter activities provide additional access to the visitor dollar and if locally owned and operated increase the percent of tourist expenditures which remain in the local economy. Available boating activities also can extend the length of visits by providing more diverse activity.

While a small boat harbor tends to complement a well-rounded visitor destination area, it is highly unlikely that any significant impact on either the rate or the extent of tourist-related development will result. It is more likely that visitor activities will increase the demand for and the use of a harbor.

6. PROBABLE ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

6.1. SHORT-TERM

- Temporary siltation of water columns due to dredging activities.
- Temporary dust, emissions and noise and erosion due to construction activity.
- Temporary drop in colonization of marine waters during construction and dredging activities.
- Minor temporary traffic disruption during construction of access road intersection.
- Blasting associated with quarrying activities will generate excessive noise and dust levels. The impact may vary depending upon the final location of the quarry site to surrounding residential and historic sites.

6.2. LONG-TERM

- Impact of increased noise and emissions from automobile and boat traffic and various onshore activities.
- Impact of increased vehicular traffic.
- Impact of dredging live coral colonies on local benthic ecosystems.
- Visual impact of harbor development on historical site.
- Slight degradation of harbor water quality due to boat emissions and site runoff.

Another possible source of damage to the historic structures and two heiau may come from heavy vehicles passing through the historic site park area. Although such vehicles would include those associated with harbor construction, a recent study conducted by the U.S. Geological Survey for the National Park Service failed to establish any relationship between current vehicular traffic (which includes heavy trucks) and the structural stability of the two heiau (Ref. 48). As noted elsewhere, most previous damage to the prehistoric and historic structures appears to have been caused by earthquakes.

The proposed harbor plan would also present an additional visual intrusion into the existing seascape fronting the National Historical Site. This intrusion is not considered to be adverse in the sense of altering the historic integrity of the site, because the original historic coastline was irreversibly altered in the 1950s by construction of the coral fill area southeast of the existing deep-draft harbor (Ref. 6).

5.12. VISUAL IMPACTS

Additional construction and activity within the project area would alter and increase the diversity of the view from exiting historic and recreational areas. The views of existing harbor facilities are neither spectacular nor consistent with recreational or historic environments and it is unlikely that the addition of recreationally oriented small boat facilities will materially degenerate those already unsatisfactory visual conditions. A completed development, properly landscaped, could improve the recreational atmosphere of the visual environment.

By providing additional vantage points, harbor development could increase the diversity of visual experience, and provide excellent vistas of the historic sites as well as the regional landscape.

Telephone and power poles, if above ground, would become an additional visual intrusion in the project area. This intrusion will be avoided by installation of these utilities underground. Spencer Beach Park, which exists about 1,000 feet from the project site, may also be subjected to some visual impact from the completed harbor. There may be some temporary degradation of aesthetics as a result of water turbidity during construction operations.

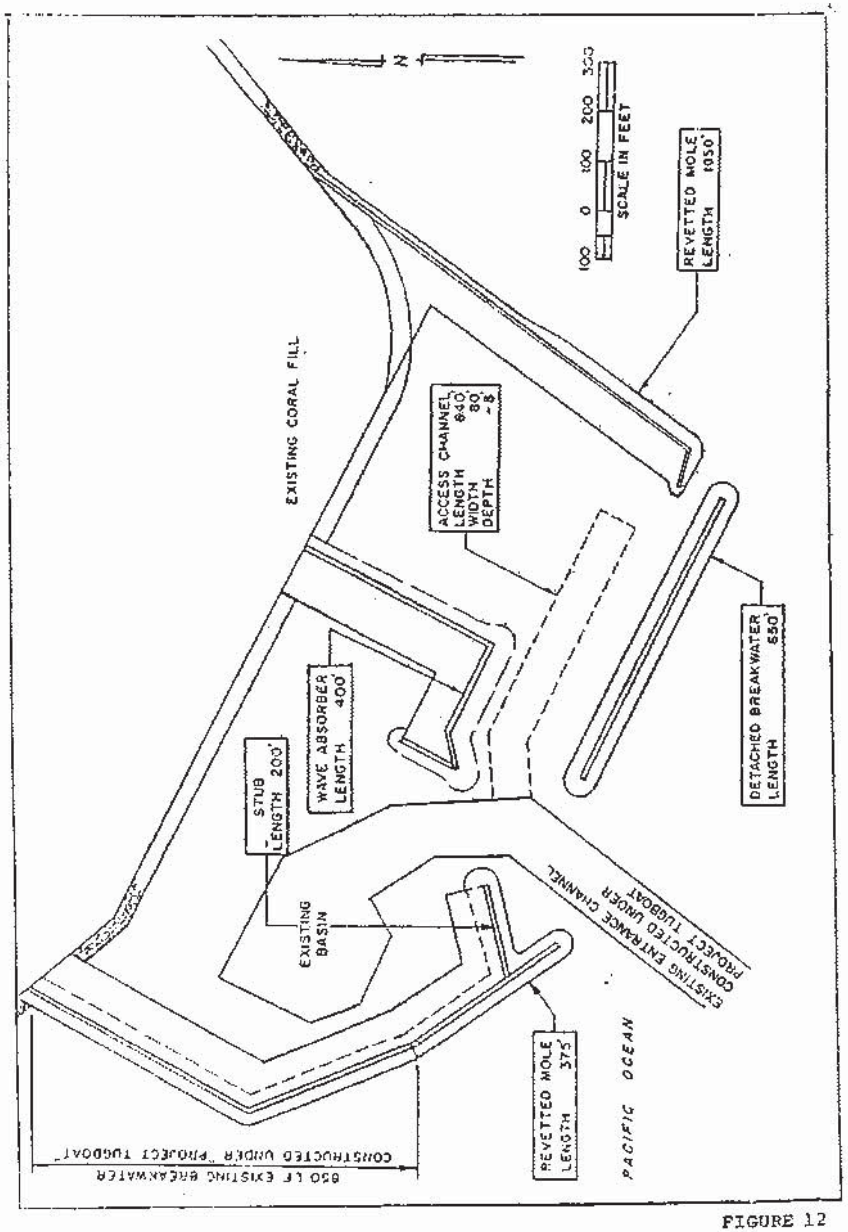


FIGURE 12

KAWAIHAE SMALL BOAT HARBOR - PROPOSED ACTION
(CORPS OF ENGINEERS PLAN B)

7. ALTERNATIVES TO THE PROPOSED ACTION

7.1. INTRODUCTION

Since previous construction activities have significantly and permanently altered the original marine condition within the proposed project location, and since other locations within the service area would require more extensive and environmentally disruptive alterations, the consideration of alternates has been limited to the Kawaihae harbor area.

Four major alternatives to the proposed action have been considered:

Alternative #1:	No action
Alternative #2:	Locate the small boat harbor within the existing deep-draft harbor
Alternative #3:	Corps of Engineers Plan A
Alternative #4:	Corps of Engineers Plan C

7.2. ALTERNATIVE #1: NO ACTION

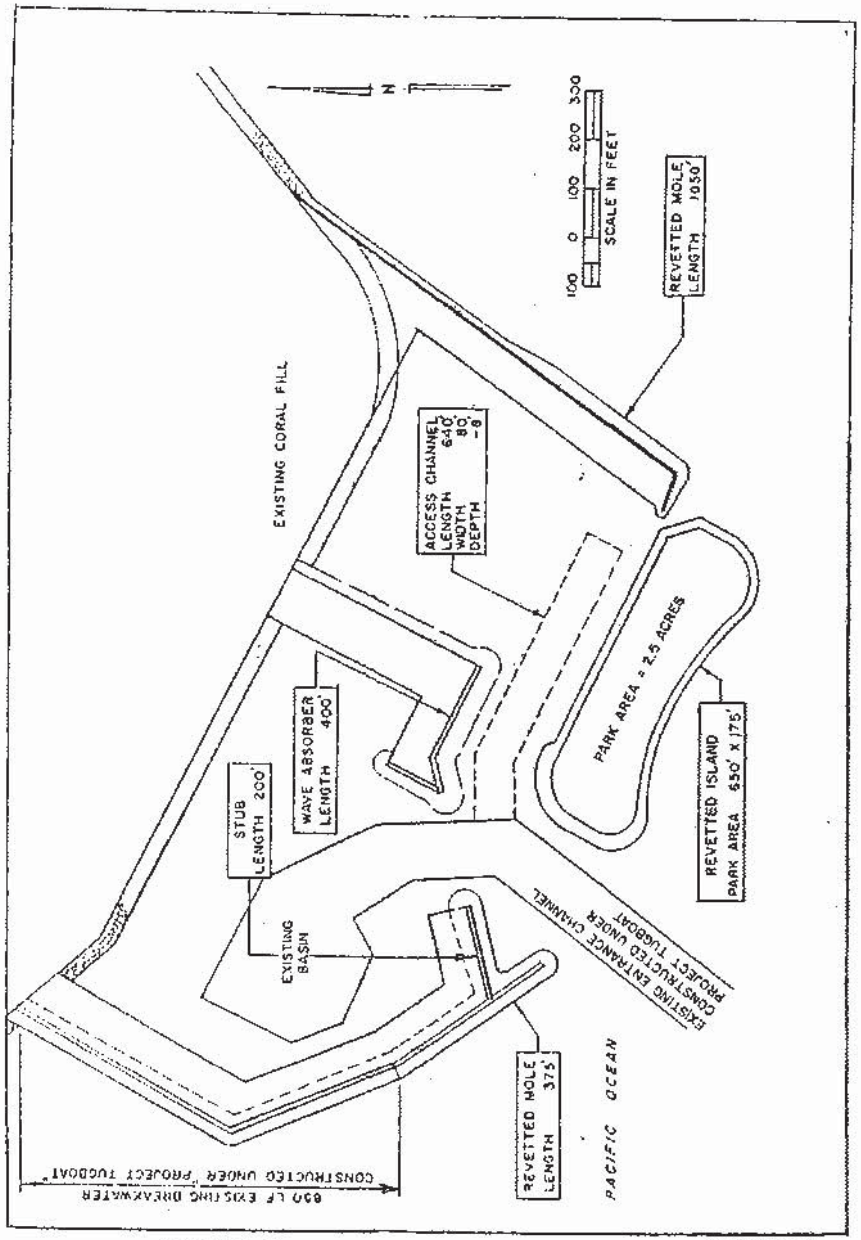
No further construction or activity having an additional impact on the environment would be undertaken or permitted. Existing conditions and uses would continue.

7.3. ALTERNATIVE #2: LOCATING THE SMALL BOAT HARBOR WITHIN THE LIMITS OF THE EXISTING DEEP-DRAFT HARBOR

This alternative (Figure 13) involves expanding berthing facilities at the existing north boat basin and the south small boat harbor and constructing facilities similar to the proposed action (Corps of Engineers Plan B, Figure 12). No additional dredging would be required.

7.4. ALTERNATIVE #3: CORPS OF ENGINEERS PLAN A

Alternative #3 is similar to the proposed action but substitutes the offshore breakwater for a 2.5-acre offshore island, revetted around its perimeter and filled to the +7-foot elevation. The island would be landscaped to create a park area (Figure 14).

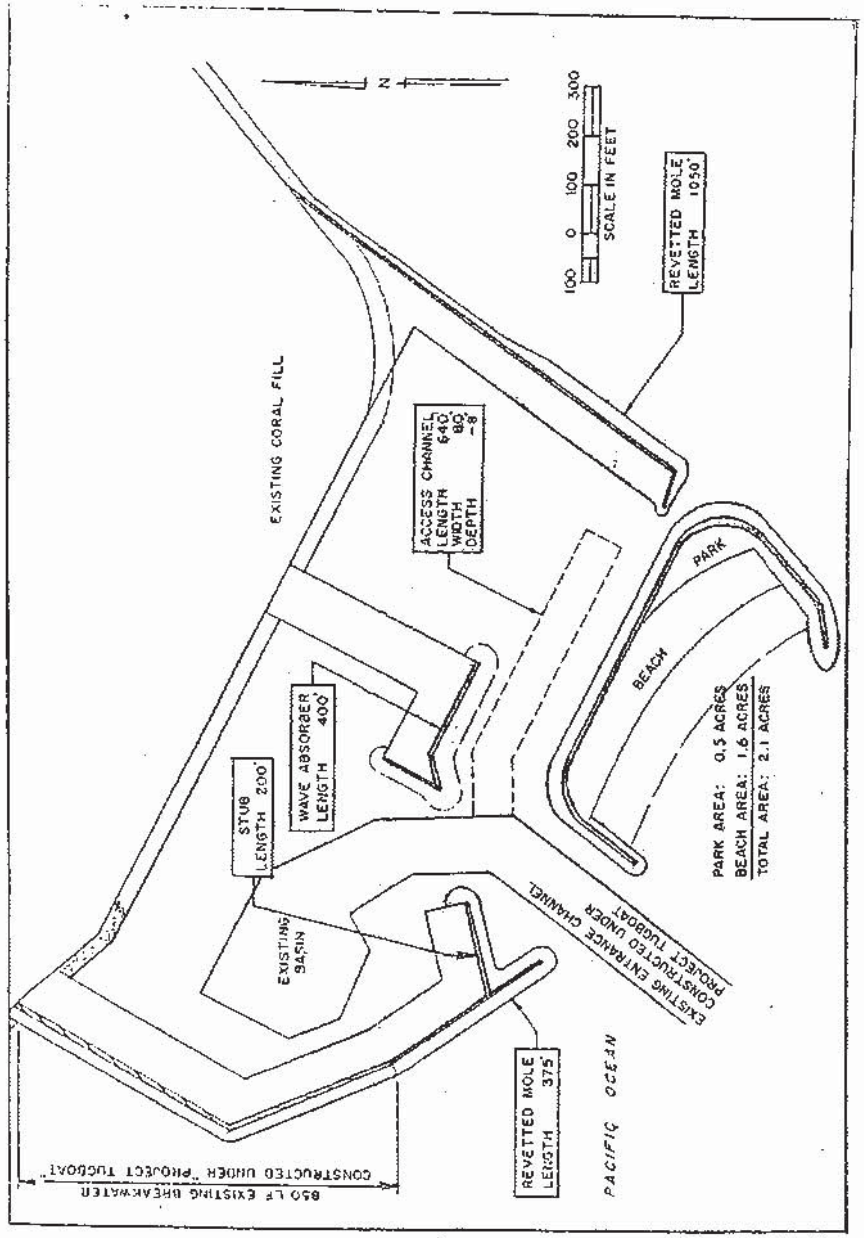


KAWAIHAE SMALL BOAT HARBOR FIGURE 13
ALTERNATIVE #2 - SMALL BOAT HARBOR WITHIN DEEP DRAFT HARBOR 75

KAWAIHAE SMALL BOAT HARBOR FIGURE 14
ALTERNATIVE #3 - CORPS OF ENGINEERS PLAN A 76

7.5. ALTERNATIVE #4: CORPS OF ENGINEERS PLAN C

Alternative #4 is also similar to the proposed action but provides in place of the offshore breakwater a 2.1-acre revetted offshore island which would be filled to the +7-foot elevation. A 650-foot-long, 85-foot-wide beach would extend between two groins along the seaward side of the island. The beach and backshore area would be amenable to the development of a beach park complex by local interests. Landscaping of the backshore area would be carried out for use by the general public (Figure 15).



KAWAIHAE SMALL BOAT HARBOR
ALTERNATIVE #4 - CORPS OF ENGINEERS PLAN C

FIGURE 15

Recreational opportunities will be greatly enhanced by the project, including boating and related offshore fishing activities, shoreside fishing and passive recreation.

The project will provide temporary construction jobs and permanent operations and maintenance jobs at the completed harbor area. These jobs will enhance the short-term and long-term economic climate of the Kawaihae area and the island of Hawaii. The harbor will also attract additional residents to the area, although the nature of the surrounding developments is not likely to be significantly changed or accelerated because of the harbor.

7.6.2. Alternative #1: No Action

Failure to implement the proposed harbor would not fulfill the goals and objectives of the project: meeting the projected needs of the boaters for the projected life of the project; providing safe, convenient and pleasant harbor facilities; broadening the recreational potential for the area; and enhancing the visual and environmental quality of the site.

No action would also result in the continued use of existing unprotected boat mooring facilities within the deep-draft harbor and in the existing unprotected dredged harbor area at the proposed project site.

All other existing physical, environmental, social, economic, and cultural base conditions remain unchanged with no action.

7.6.3. Alternative #2: Locating the Harbor within the Limits of the Existing Deep-Draft Harbor

Two small boat facilities currently exist within the deep-draft boat harbor: the north boat basin and the south small boat harbor. Both facilities were provided within the harbor to meet the demand for small boat anchorage in the late 1950s. The north boat basin provides relatively well-protected moorings in addition to a launching ramp, but is small and abuts land conflicting with projected uses in the Harbor Master Plan of 1961. The north boat basin is also subjected to large surge factors as well as being in conflict with commercial traffic.

The south small boat harbor is so exposed to surge that a number of concrete mooring piles have snapped off at the base. In addition, permanent installations here would obstruct future expansion of the overseas terminal as proposed by the Department of Transportation.

7.6. SUMMARY OF PROPOSED ACTION AND ALTERNATIVES

7.6.1. Proposed Action: Corps of Engineers Plan B

The proposed harbor (Figures 2 and 12) would further alter the existing condition of the 33-acre project site from a shallow sedimented, recently altered reef and dredged basin area to a permanent light-draft vessel harbor complex consisting of revetted land areas, channels, basin, and berthing sanctuaries. There are no known threatened or endangered species nor critical habitats within the project.

The oceanographic regime of the new harbor may substantially differ from the existing conditions. The natural bathymetry of the project area will be permanently altered by filling and dredging operations. Also, the completed harbor structures may tend to slow and deflect existing sluggish wind-generated currents, and provide shelter to small boats from the wave and surge regimes of the area. Turbid water will continue to be trapped on the south side of the partially completed breakwater of the proposed harbor, and an increase in turbidity may occur on the south side of the completed small boat harbor. This turbidity can be greatly reduced by controlling windborne sedimentation and constructing sediment traps for major drainage ways. The harbor will be designed so that there will be no significant restriction of the already poor water circulation in the basin.

Noise and hydrocarbon emissions generated by construction equipment will be temporary, and impacts will be minor since the area is sparsely populated. Noise and hydrocarbon emissions will be permanently generated by boats and vehicles utilizing the completed harbor.

Increased sedimentation on the harbor floor because of reduced wave action and project dredging and filling operations may result in the replacement of the already depauperate marine fauna by other organisms more tolerant of a sediment bottom. Complete harbor structures such as moles, breakwaters, etc., should serve as favorable habitats to many fish species, some corals, algae, and other invertebrates.

Possible associated quarrying activities in the Makeahua Quarry upstream from the project site may cause an increase in sedimentation between the project site and the adjacent historic/archaeological site and may continue the sedimentation of the Haleokapuni Heiau.

Recreational opportunities will be further enhanced by the construction of the offshore island. An additional 2.5 acres will become available for fishing, picnicking, and other passive and active uses. Swimming, however, will be restricted due to shark activity in the area.

This alternate will provide more employment than the proposed action due to additional construction, operational, and maintenance requirements of the island park.

Other social and economic impacts will be similar to the proposed action.

The island park would enhance the visual nature of the harbor and reduce the visual impact of the harbor on the shoreline by providing additional landscaping to the breakwater feature.

Costs for the structure and operational maintenance will be higher for this alternate than for the offshore breakwater.

7.6.5. Alternative #4: Corps of Engineers Plan C

Alternate #4 (Figure 15) also presents physical impacts similar to the proposed action. However, an additional 2.75 acres of fill will be required to construct the 3.5-acre offshore island/beach park. Additional previously destroyed coral reef will be covered and the general bathymetry of the immediate area will be altered as a result. Additional filling and deposition into marine waters will also result in a greater temporary turbidity problem, and will create a greater perimeter of potential habitat area for certain fish and marine fauna.

Recreational use will be greater than the proposed alternate due to the construction of the 3.5-acre island/beach park. Fishing, picnicking, sunbathing, and other beach-oriented activities will be made possible, however, swimming will be restricted due to shark activity in the area.

The construction of the island/beach park will result in additional construction, operation and maintenance jobs over the proposed action, and will also create an additional opportunity for private local interests to develop a related beach park complex. The beach park may draw users from the Spencer County Park. The island/beach park may also attract visitors from the adjacent historic site.

A problem also arises on current and potential conflicts between commercial and recreational boat traffic. In addition, these recreational craft are a potential hazard and/or hindrance to the larger commercial craft. Recreational boating is often associated with swimming, diving and fishing activities, and smaller sailing rigs have a greater potential for capsizing.

Because no additional dredging or construction of breakwaters would occur, no impacts would result from destruction of marine fauna or sedimentation due to dredging and/or filling operations. Any expansion involving shoreside construction activities may cause some temporary sedimentation within the large-draft harbor. Additional noise and emissions will be permanently generated within the large-draft harbor should the expansion occur. No impacts on the nearby historic/archaeological sites would occur.

No additional recreational opportunities related to the small boat harbor will be created other than increased boating as a result of the possible expansion.

Additional construction-, operation-, and maintenance-related jobs may be created as a result of expansion, though slightly fewer than the jobs created by construction of a new small boat harbor (proposed plan). The expansion may also attract additional residents to the area.

The use and/or expansion of the small boat harbor will have a neutral visual impact on the existing large-draft facility.

The cost for continued use and/or expansion of the small boat moorings within the large-draft harbor remains the lowest of the alternates (other than no action) because construction would be limited to additional berthing and shoreside support facilities.

7.6.4. Alternative #3: Corps of Engineers Plan A

Alternate #3 (Figure 14) presents the same physical impacts as the proposed action. However, an additional 1.75 acres of fill will be deposited in the marine waters to create the 2.5-acre offshore revetted island. This additional fill represents a greater alteration of bathymetry which will result in a coverage of additional previously destroyed coral reef and a greater temporary turbidity factor, but will create a larger perimeter of potential habitats for certain fish and marine fauna.

8. RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The establishment of a small boat harbor at Kawaihae will provide additional safe and convenient storage, launching, maintenance and mooring facilities for the useful project life. If the land were to remain in its present use, relationships would be as follows:

- The land would produce no economic revenue versus the proposed project which includes commercial operations providing additional employment and increased tax revenues.
- Marine environmental quality would remain unaffected versus the proposed project which would result in a temporary degradation in water quality and loss of marine life.
- Terrestrial environmental quality would remain in its barren state (coral fill) versus the proposed project which provides topsoil, landscaping and irrigation to enhance the plant community and provide a potential habitat for fauna.
- The implementation of the project would result in enhanced recreational opportunities for the affected area.

The visual impact of the harbor on the shoreline would lie with the additional landscaping for the design alternate.

Costs for the construction, operation and maintenance of the offshore island/beach park are higher than for the proposed project (Alternate #1), and Alternate #4 (Corps of Engineers Plan C).

- Explore alternative methods of providing adequate fire fighting capability, such as utilizing pumped sea water.

- Schedule construction of the access road intersection during non-peak traffic flows.

- Conduct construction activities during standard hours of operation.

- Require contractor to restore to its natural state or better any damaged or disturbed area that was specified on plans as such.

- Monitor dredging activities to insure that no unnecessary or excessive dredging occurs and noise and emission standards are maintained.

9.2. LONG-TERM IMPACTS

- Landscape unimproved areas altered as a result of construction activities. This measure includes addition of topsoil where disturbed or removed and the planting of grass, groundcovers or other plant materials as necessary to minimize erosion or dust emissions.

- Restrict boat speed limits within harbor to control the noise level and the generation of damaging wakes.

- Minimize impact of harbor on adjacent historical sites (proposed Pu'ukohola National Historic Site) using design controls. Measures entail providing low-profile architectural elements, using natural material and colors of the region for structures and landscape elements, emphasizing the use of native and adapted plant materials, providing underground utilities from Kawaihae Road, and using appropriate landscape buffering between the sites and the proposed historic park. In addition, provisions for access linking passive recreational facilities of the project with the existing and proposed facilities of the adjacent historic site will be made. The proposed harbor site remains one of the best vantage points for viewing the Pu'ukohola Heiau, and provisions for an observation station will be considered.

- Monitor water quality in harbor and adjacent area and take corrective action, if necessary, to maintain State of Hawaii Standards for Harbor Waters which are designated Class B.

9. MITIGATION MEASURES PROPOSED TO MINIMIZE IMPACT

The following measures are proposed to minimize significant adverse environmental impacts. The considerations are grouped according to duration of impact.

9.1. SHORT-TERM IMPACTS

- Implement procedures which lessen water turbidity and the dispersion of sediments and fugitive dust during construction. Monitoring and control methods for turbidity, sedimentation, and impacts on the benthic organisms will be included as part of the contract specifications. The State of Hawaii Department of Health rules and regulations (Chapter 43, Section 10) stipulate the control measures that are to be employed to reduce this type of emission. Key controls include the monitoring of plume and frequent wetting down of loose soil with water, oil, or suitable chemicals, which can reduce particulate emissions from a construction site up to 50 percent. Other potential measures include the use of dust-catching barriers. Where necessary, grassing, hydromulching, or groundcover plantings may be employed to reduce soil erosion. Additional measures should be employed by the State to control wind-driven coral dust from the adjacent harbor fill area into the project site. These include (a) cessation of coral fill mining and grading operations by private contractors; (b) planting and irrigation of cover vegetation; and (c) the removal of the overburden and its storage elsewhere.

  Turbidity of waters within and outside the harbor may be controlled by (a) construction of the east and west moles before dredging operations; (b) placement of rocks during low wave energy periods; (c) placement of rock during low tidal periods; (d) careful placement of rock and fill materials; and (e) use of silt curtains.

- Protect existing vegetative buffer to retard soil erosion. The development plan retains the existing planting of Cocos nucifera and Scaevola taccada.

- Monitor construction noise and equipment emissions, and if necessary the contractor shall take corrective action to comply with appropriate governmental regulations.

11. OTHER INTERESTS AND CONSIDERATIONS OF GOVERNMENTAL POLICIES THOUGHT TO OFFSET ENVIRONMENTAL EFFECTS OF THE PROPOSED ACTION

All construction, maintenance, and operational activities will be subject to compliance with all applicable State and County environmental protection laws and ordinances. As required, the contractor and Harbors Division staff will monitor activities affecting groundwater and marine water quality, dust, erosion and siltation, air quality, noise levels, and protection of archaeological and unique geological features.

Certain social and cultural benefits also tend to offset some of the environmental effects. Additional offshore and onshore harbor facilities including landscaping provide the users more opportunity for recreational boating and related activities such as fishing, picnicking, etc. Alternative #4 provides for an offshore island park which would provide an even greater recreational potential.

The additional landscaping of the coral fill site will provide enhanced views to and from the proposed Pu'ukohola Heiau National Historic Site and will serve as a visual and physical extension of recreational activity associated with the park.

Economic benefit evaluations have not been recently examined, however a cost/benefit analysis by the Corps of Engineers in 1970 showed a cost/benefit ratio of 1.5. These recreational boating benefits were computed by subtracting the net return to boaters gained from the existing facilities from the net return to boaters gained from the proposed harbor facilities. The net return to boaters was developed as outlined by the Corps of Engineers Recreational Boating Formula.

10. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The implementation of the proposed small boat harbor would result in the commitment of resources in various forms. The State's resources in terms of land, labor, and capital would be engaged in the construction of the harbor as well as the long-term operation and maintenance.

Natural resources such as rock, sand, wood, and other construction materials would be committed for the life of the project. These materials are replaceable, but the project will utilize them on a long-term basis. Approximately 40,000 cubic yards of rock and sand will be removed from the source and incorporated in the project. In addition, undetermined amounts of other construction materials such as bituminous paving, steel, wood and concrete would be included in the project.

The loss of 33 acres of reef habitat has already occurred at the proposed project site during Project Tugboat operations. Additional dredging of the access channel and basin would result in the further loss of reef formation and related benthic habitats.

In terms of recreational resources, the proposed small boat harbor would commit the immediate area for boating. It should be noted, however, that the area currently acts as a temporary mooring site. Swimming and diving within the interior area of the harbor or access channel would be dangerous and therefore prohibited.

12. LIST OF NECESSARY APPROVALS

County of Hawaii

1. Special Management Area (SMA) Permit
2. Re-zoning of Multiple Family Residential (RM) and Open (O) zones to General Industrial (MG)
3. Building and Construction Permits
   A. Grading
   B. Electrical
   C. Water
   D. Sewer

State of Hawaii

1. Conservation District Use Application (CDUA), Department of Land and Natural Resources
2. Environmental Impact Statement, Chapter 3143, HRS
3. Hawaii Coastal Zone Management Program, Chapter 205A, HRS

Federal

1. U.S. Army Corps of Engineers
2. National CZM Act of 1972, as amended

13. COMMENTS AND RESPONSES MADE DURING THE CONSULTATION PROCESS

REFERENCES

1. U.S. Department of Defense, Department of the Army Corps of Engineers, Pacific Ocean Division, 1975. Environmental Assessment Kawaihae Small Boat Harbor, Hawaii, Hawaii.

2. Day, W.C., and W. Wnud, C.C. McAneny, K. Sakai, D.L. Harris, 1975. U.S. Army Engineer Waterways Experiment Station, Livermore, California, Explosive Excavation Research Lab (390123), 1972. Project Tugboat: Explosive Excavation of a Harbor in Coral. C0365J1 Report No. EERL-TR-E-72-23.

3. U.S. Department of Interior, National Park Service, undated. Master Plan, Proposed Pu'ukohola Heiau National Historic Site, Hawaii. 21 pp.

4. U.S. Army Engineer Division, Pacific Ocean Division, Honolulu, Hawaii, August 1971. General Design Memorandum for Kawaihae Harbor for Light-Draft Vessels, Hawaii, Hawaii. 25 pp. and appendices.

5. U.S. Department of Defense, Department of the Army Corps of Engineers, Pacific Ocean Division, 1971. Final Environmental Statement for Kawaihae Harbor for Light-Draft Vessels, Hawaii, Hawaii. 13 pp. and comments.

6. U.S. Department of Defense, Department of the Army Corps of Engineers, Pacific Ocean Division, June 1978. Draft Information Supplement to the Final Environmental Statement. 43 pp.

7. Ocean Research Consulting and Analysis, 1978. Reconnaissance Surveys of the Marine Environment Kawaihae Small Boat Harbor Project Site Kawaihae. Prepared for the U.S. Army Engineer District.

8. U.S. Department of Agriculture, 1973. Soil Survey of the Island of Hawaii; in cooperation with the University of Hawaii Agricultural Experiment Station.

9. Hawaii State Department of Transportation, 1972, Master Plans for Ports of Hilo and Port of Kawaihae, Island of Hawaii; prepared by Tudor Engineering Co.

10. Sullivan, S.P. and F. Gerrisen, 1972. Dredging Operation Monitoring and Environmental Study, Kawaihae Harbor, Hawaii. James K.K. Look Laboratory of Oceanographic Engineering, Technical Report 25: 171 pp.

14. ORGANIZATIONS AND PERSONS TO BE CONSULTED

County of Hawaii

Mayor's Office
County Council
Department of Human Concerns
Department of Public Works
Department of Water Supply
Department of Parks and Recreation
Planning Department
Hawaii County Fire Department
Hawaii County Police Department
Department of Economic Development

State

Department of Agriculture
Department of Education
Department of Health
Department of Land and Natural Resources
Department of Planning and Economic Development
Department of Transportation
Office of Environmental Quality Control
Department of Hawaiian Home Lands
Environmental Center (U.H.)
Water Resources Research Center (U.H.)

Federal

U.S. Army Corps of Engineers
U.S. Department of Agriculture, Soil Conservation Service
U.S. Department of Interior, Fish and Wildlife Services
U.S. Department of Housing and Urban Development

Others

Hawaii Electric Co.
Hawaiian Telephone Co.
The Sierra Club

11. Neighbor Island Consultants, 1974. Summary Report for Kawaihae Water Quality and Current Studies. Prepared for the U.S. Army Engineers, Pacific Ocean Division, Honolulu, Hawaii. 25 pp. plus extensive appendices.

12. U.S. Department of Defense, Department of the Army Corps of Engineers, Pacific Ocean Division, November 12, 1963. Review Report on Sruvey of Kawaihae Harbor for Navigation.

13. U.S. Department of Defense, Department of the Army Corps of Engineers, Pacific Ocean Division, December 1967. Expansion and Revision of Kawaihae Harbor, Hawaii. Technical Report #2-806. Conducted by U.S. Army Engineer Waterways Experiment Station.

14. U.S. Department of Land and Natural Resources, Division of State Parks, 1969. The Archaeology of South Kohala - the Ahupua'a of Kawaihae. 111 pp.

15. M & E Pacific, Inc., September 1979. Revised Environmental Impact Statement for the Kihei Boat Launching Ramp Facility at Keawakapu, Maui, Hawaii. Prepared for U.S. Department of Transportation, Divison of Harbors, State of Hawaii.

16. U.S. Department of Transportation, Division of Harbors, State of Hawaii, November 20, 1975. Revised Environmental Impact Statement, Honokohau Harbor.

17. U.S. Department of Defense, Department of Army Corps of Engineers, Honolulu District, April 1980. Draft Design Memorandum No. 1., Maalaea Harbor for Light-Draft Vessels, Maui, Hawaii.

18. U.S. Department of Defense, Department of Army Corps of Engineers, Honolulu District, June 1980. Draft Environmental Impact Statement for the Proposed West Beach Resort, Honolulu, Hawaii. Joint Federal-State Statement.

19. Department of Planning and Economic Development, November 1982. State of Hawaii Data Book - A Statistical Abstract.

20. U.S. Department of the Army Corps of Engineers, Honolulu District, November 19, 1980. Section 404 Evaluation for Kawaihae Small Boat Harbor Project (Plan B).

21. U.S. Department of the Army Corps of Engineers, Honolulu District, December 18, 1978. Letter to David Calkins, Director of Office of External Relations, U.S. Environmental Agency, Region IX.

22. Ahuimanu Products, 1977. Bird and Mammal Survey of Army Lands in Hawaii. Prepared for U.S. Army Support Command Hawaii.

23. Roach, Jon, et al., 1975. Offshore Sand Aggregate Surveys, Island of Hawaii. University of Hawaii, Hilo, Marine Options Program.

24. Environmental Consultants, Inc., 1973. Environmental Assessment of Proposed Sand Mining Off Kaloko Pond, Hawaii. A preliminary draft prepared for Sand Co. of Kailua-Kona.

25. Adams, W.M. and L.K. Lepley, 1968. Infrared Images of the Kau and Puna Coastlines on Hawaii. WRRC Tech. Report #26, University of Hawaii. 51 pp.

26. Davis, D.A. and G. Yamanaga, 1968b. Preliminary Report on the Water Resources of the Kona Area, Hawaii, Hawaii. Division Water and Land Development circ. C47. 22 pp.

27. Fisher, W.A., D.A. Davis and T.M. Sonza, 1966. Fresh-Water Springs of Hawaii from Infrared Images. U.S. Geol. Survey Hydrol. Inv. Atlas. HA-128.

28. Doty, M., 1968. Biology and Physical Features of Kealakekua Bay, Hawaii. University of Hawaii Botanical Science Paper No. 8.

29. Doty, M.S. (ed.), 1969. The Ecology of Honaunau Bay, Hawaii. University of Hawaii Botanical Science Paper No. 14.

30. Cox, D.C., F.I. Peterson, W.M. Adams, C. Lao, J.F. Campbell, and R.D. Huber, 1969. Coastal Evidence of Groundwater Conditions in the Vicinity of Anaehoomalu and Lalamilo, South Kohala, Hawaii. University of Hawaii Water Resources Research Center, Technical Report 24.

31. Hawaii State Department of Land and Natural Resources, 1970. An Inventory of Basic Water Resources Data, Island of Hawaii, Report R 34.

32. Wentworth, C.K., 1942. Storage Consequences of the Gyben-Herzberg Theory. Trans. Amer. Geophys. Union of 1942. p. 683-693.

44. Belt, Collins and Associates, 1973. A Preliminary Environmental Assessment of Orchid Island Resort Corporation, South Kohala Hawaii Project.

45. Hawaii State Department of Planning and Economic Development, 1973. Hawaii Tourism Impact Plan. Vol. II (West Hawaii).

46. Department of Transportation, Harbors Division, 1980. Master Plan for Kawaihae Deep-Draft Vessel Harbor, Year 2000.

47. State of Hawaii, Historic Preservation Officer, letter dated September 18, 1978 to U.S. Army Engineer District, Honolulu.

48. U.S. Geological Survey.

49. Record of telephone conversation, subject: Kawaihae Small Boat Harbor, January 2, 1979 between D. Sox (U.S. Army Engineer District, Honolulu) and T. Rexrode (State of Hawaii Department of Transportation).

50. Hawaii County Planning Department, 1978. Draft General Plan Revision Program.

51. Environmental Communications, Inc., December 1975. Kohala Community Development Plan, prepared for the Planning Department, County of Hawaii.

52. Department of Land and Natural Resources, Sept. 1980. State Recreation Plan, Technical Reference Document.

53. Banner, Albert H., 1976. Ciguatera: A Disease from Coral Reef Fish. Biology and Geology of Coral Reef, Vol III, Chapter 6, pp. 177-213.

33. Patzert, W.C., 1969. Eddies in Hawaiian Waters. Hawaii Institute of Geophysics, University of Hawaii Report 69-8. 1-51.

34. Cox, D., 1961. Potential Tsunami Inundation Areas in Hawaii. Hawaii Institute of Geophysics, University of Hawaii, Report 14.

35. Cox, D.F., and J.F. Mink, 1963. The Tsunami of May 23, 1969 in the Hawaiian Islands. Bull. Seismol. Soc. Am., 53(6): 1191-1209.

36. Hawaii Water Resources Regional Study, February, 1975. Preliminary Report Hawaii Water Resources Regional Study. Regional Edition, 68 pp. plus nine reports, one for each subregion.

37. Chemey, Daniel P., Hemmes, D.E., and Nolan, R., 1977. The Physiography and Marine Fauna of Inshore and Intertidal Areas in the Pu'ukohola Heiau National Historic Site. Tech. Report #13, Coop. National Park Resources Studies Unit, Department of Botany, University of Hawaii, Honolulu, Hawaii.

38. Environmental Consultants, Inc., 1971. Wailua Bay. A report sumitted to Sunn, Low, Tom, and Hara by ECI, 40 pp.

39. Environmental Consultants, Inc., 1975. Marine Environmental Assessment, Barbers Point Barge Harbor, Oahu, Hawaii. 110 pp.

40. Oceanic Institute, 1975. A Three-Year Environmental Study of Honokohau Harbor, Hawaii. Prepared for the U.S. Army Engineer District, Honolulu Corps of Engineers. 101 pp.

41. Environmental Consultants, Inc., 1976, Marine Environmental Reconnaissance Study for Proposed Lahaina Small Boat Harbor, Maui, Hawaii. 85 pp.

42. Bell, Frederick W., 1977. Benthic Marine Algae of the Coastal Waters of Pu'ukohola National Historic Site. Tech Report #16, Coop. National Park Resources Studies Unit, Department of Botany, University of Hawaii, Honolulu, Hawaii.

43. JHK Tanaka, Inc., 1983. Development Plan for Kawaihae Small Boat Harbor. Prepared for Department of Transportation, Harbors Division.

APPENDIX D

***FINAL ENVIRONMENTAL ASSESSMENT FOR KAWAIHAE HARBOR FOR LIGHT-DRAFT VESSELS,* DATED 1994**
(Appendices not included)

FINAL
ENVIRONMENTAL ASSESSMENT
FOR
KAWAIHAE HARBOR FOR LIGHT-DRAFT VESSELS
HAWAII, HAWAII

Prepared by: U.S. ARMY ENGINEER DISTRICT, HONOLULU
Building 230
Fort Shafter, Hawaii 96858-5440

December 7, 1994

COVER SHEET

Lead Federal Agency	U.S. Army Engineer District, Honolulu
Lead State of Hawaii Agency	Department of Land and Natural Resources, Division of Boating and Ocean Recreation
Proposed Action	Construct a harbor for light-draft commercial and recreational vessels.
Project Location	Adjacent to Kawaihae Deep-draft Harbor, South Kohala District, County of Hawaii, Hawaii.
Type of Report	Final Environmental Assessment.

Abstract:

The U.S. Army Engineer District, Honolulu is proposing to complete construction of a harbor for light-draft vessels at Kawaihae. The dredging for the entrance channel and turning basin and some of the berthing area was completed in 1969 and 1970 during Operation Tugboat. Completion of the Federal portion of the project will involve construction of the new protective structures but no additional dredging. Berthing and other ancillary facilities will be constructed by the local sponsor (State of Hawaii Department of Land and Natural Resources, Division of Boating and Ocean Recreation). The alternative approved by Congress in 1972 was Plan A (with the off-shore island), but because of a change in policy concerning cost/benefit analysis and community concern, the project has been reformulated to identify a new, downsized plan as the proposed action. The construction of the harbor will have no effect on listed, proposed or candidate endangered or threatened species, and with mitigation, no adverse effect on the historic properties in the nearby (but not within the project area) Pu'ukohola Heiau National Historic Site (a National Historic Landmark operated by the National Park Service). There are no prime agricultural lands; no terrestrial threatened or endangered species; no known historic properties (although there may be subsurface features under the fill in the area proposed for the eventual new access road); and no other known significant terrestrial environmental resources in the project area. No significant terrestrial environmental impacts are likely. There are living coral colonies and a portion of the coral reef will be affected by the project. There are no practicable alternatives to construction of the harbor in the floodplain. Appropriate mitigation has been accomplished or recommended.

Please provide your comments on this EA by January 15, 1995 to the address shown below.

Commander
U.S. Army Engineer District, Honolulu
Building 230 Attn: CEPOD-ED-PV/Lennan
Fort Shafter, Hawaii 96825-5440
Telephone (808) 438-2264

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CHAPTER 1

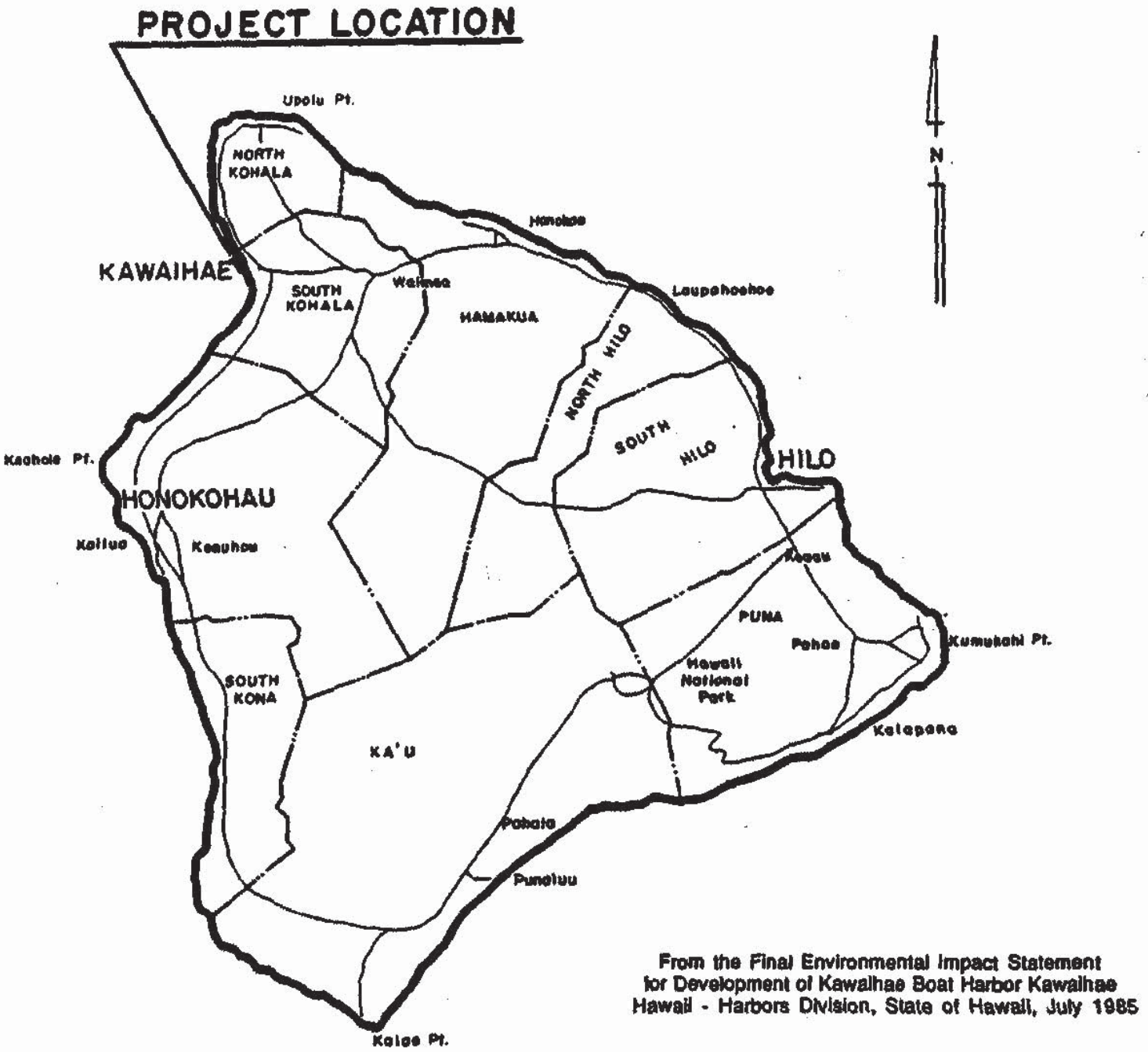
SUMMARY

1.1 MAJOR CONCLUSIONS. It is concluded that the proposed action, construction of a 90 boat light-draft harbor at Kawaihae, Hawaii (Figures 1 & 2) will have no significant adverse impact on the environment of the study area, and that there is no practicable alternative to building the harbor in the floodplain. Although there is a National Historic Landmark nearby, because of the mitigation proposed, neither construction nor the completed project is expected to have adverse physical or visual impacts on the site. Threatened green turtles are common in the immediate project area, and endangered humpback whales transit and are resident in the area from December to May each year. Neither species is expected to be significantly affected by the project. The present harbor project has the support of the local community, based on the premise that no further marina construction will occur on the South Kohala coast, and appropriate mitigation for environmental effects has been accomplished or recommended. This Environmental Assessment is for the Federal portion of the proposed project. Additional environmental documentation will be required for the local sponsor's infrastructure development.

1.2 AREAS OF CONTROVERSY. None.

1.3 UNRESOLVED ISSUES. None

1.4 RELATIONSHIP TO OTHER ENVIRONMENTAL DIRECTIVES. Compliance with all applicable environmental directives has been completed up to this phase of the project. In some cases coordination/compliance is an on-going process. Table 1 shows the present compliance status of applicable environmental directives.

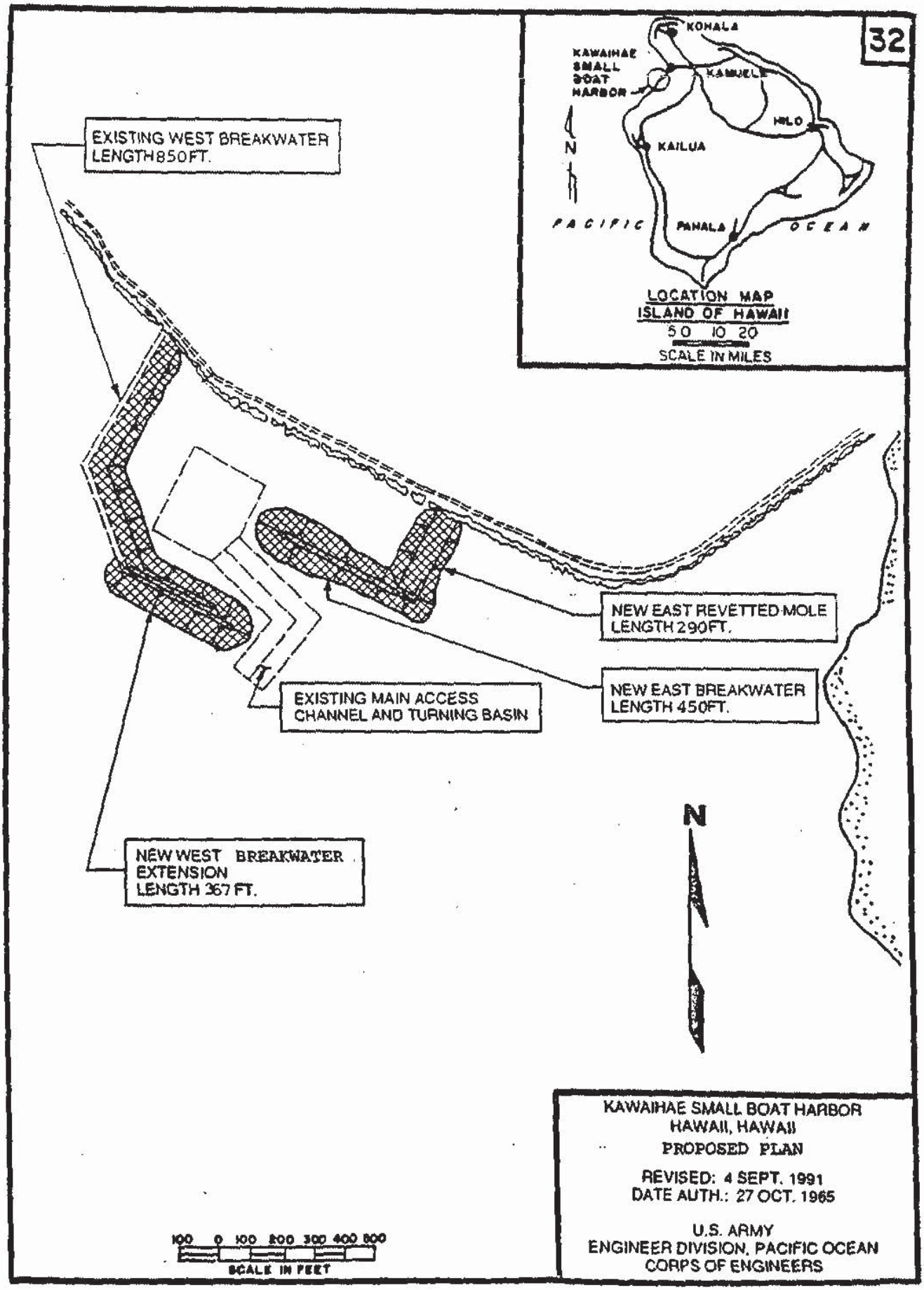


From the Final Environmental Impact Statement for Development of Kawaihae Boat Harbor Kawaihae Hawaii - Harbors Division, State of Hawaii, July 1985

ISLAND OF HAWAII

Figure 1

REGIONAL MAP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KOHALA
KAWAIHAE SMALL BOAT HARBOR
KAMUELA
HILO
KAILUA
N
PACIFIC
PAHALA
OCEAN
LOCATION MAP
ISLAND OF HAWAII
5 0 10 20
SCALE IN MILES
EXISTING WEST BREAKWATER LENGTH 850 FT.
NEW EAST REVETTED MOLE LENGTH 290 FT.
NEW EAST BREAKWATER LENGTH 450 FT.
EXISTING MAIN ACCESS CHANNEL AND TURNING BASIN
NEW WEST BREAKWATER EXTENSION LENGTH 367 FT.
N
100 0 100 200 300 400 500
SCALE IN FEET
KAWAIHAE SMALL BOAT HARBOR
HAWAII, HAWAII
PROPOSED PLAN
REVISED: 4 SEPT. 1991
DATE AUTH.: 27 OCT. 1965
U.S. ARMY
ENGINEER DIVISION, PACIFIC OCEAN
CORPS OF ENGINEERS

Figure 2

TABLE 1

COMPLIANCE WITH FEDERAL AND STATE ENVIRONMENTAL PROTECTION DIRECTIVES

Federal Statutes	Applicability	Compliance Status
American Folklore Preservation Act	No	NA
Anadromous Fish Conservation Act	No	NA
Antiquities Act of 1906	No	NA
Archaeological Resources Protection Act	No	NA
Bald Eagle Act	No	NA
Clean Air Act	Yes	Full
Clean Water Act	Yes	Full
Coastal Zone Management Act	Yes	Full
Endangered Species Act	Yes	Full
Estuaries Protection Act	No	NA
Federal Environmental Pesticide Control Act	No	NA
Federal Water Project Recreation Act	No	NA
Fish and Wildlife Coordination Act	Yes	Full
Historic Sites Act	No	NA
Land and Water Conservation Fund Act	No	NA
Marine Mammal Protection Act	Yes	Full
Marine Protection, Research and Sanctuaries Act	No	NA
Migratory Bird Conservation Act	Yes	Full
Migratory Bird Treaty Act	Yes	Full
National Environmental Policy Act	Yes	Full
National Historic Preservation Act	Yes	Full
Native American Religious Freedom Act	No	NA
Resource Conservation and Recovery Act	Yes	Full
River and Harbor Act of 1899	Yes	Full
Submerged Lands Act	No	NA
Surface Mining Control and Reclamation Act	No	NA
Toxic Substances Control Act	No	NA
Watershed Protection and Flood Prevention Act	Yes	Full
Wild and Scenic Rivers Act	No	NA
Presidential Executive Orders		
11514 - Protection and Enhancement of Environmental Quality	Yes	Full
11593 - Protection and Enhancement of the Cultural Environment	Yes	Full
11988 - Floodplain Management	Yes	Full
11990 - Protection of Wetlands	Yes	Full
12088 - Federal Compliance with Pollution Control Standards	Yes	Full

Table 1 (Continued)

State Of Hawaii Statutes	Applicability	Compliance Status
HRS Chapter 343 - EIS Rules	No	NA
HRS Chapter 6E - Historic Preservation	Yes	Full

Notes:

a. **Yes.** (Statute is Applicable). Statute is applicable and compliance is required.

b. **No.** (Statute is Not Applicable). Statute is not applicable or resource covered is not in the project area.

c. **Full** (Full Compliance). Having met all requirements of the statute for the **current** stage of planning. Additional compliance may be required during later phases of planning or during construction.

d. **Partial** (Partial Compliance). Less than full compliance at this stage of planning

d. **NA** (Not Applicable). No requirement for the statute, or the resource is not present at the project site.

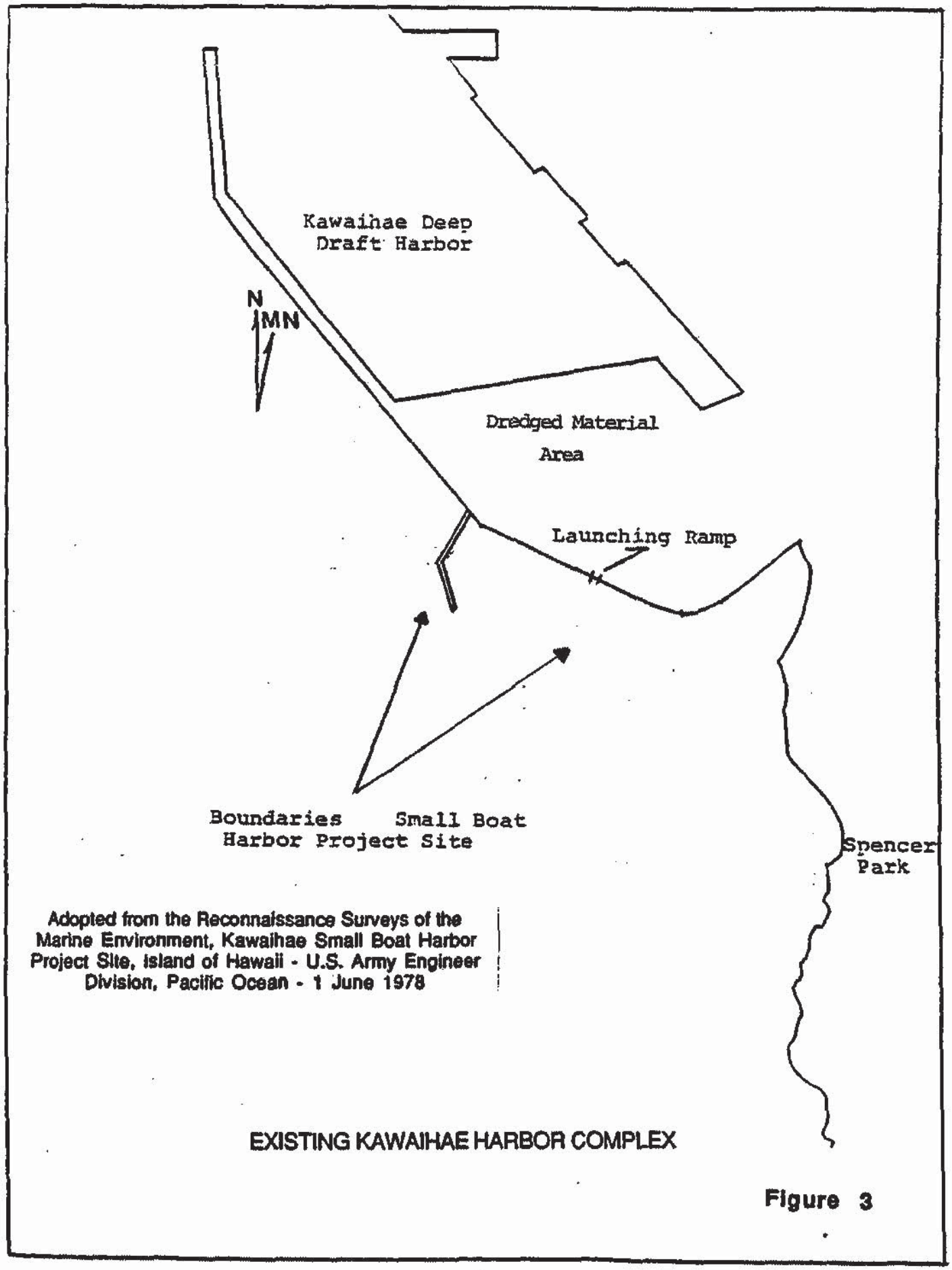
CHAPTER 2

PURPOSE AND NEED FOR THE PROPOSED ACTION

2.1 PURPOSE OF THE PROPOSED ACTION. The purpose of the proposed action is to complete the harbor for light draft vessels which was started in 1969-1970 with Project Tugboat (Figure 3).

2.2 NEED FOR THE PROPOSED ACTION. A light draft harbor is needed in South Kohala to provide wet storage for approximately 90 commercial and recreational vessels. The increase in tourist facilities in South Kohala has generated a need for increased commercial vessels such as charter fishing boats to be located in the vicinity. In addition it is desirable to relocate the approximately 36 light draft vessels presently moored in the deep draft harbor.

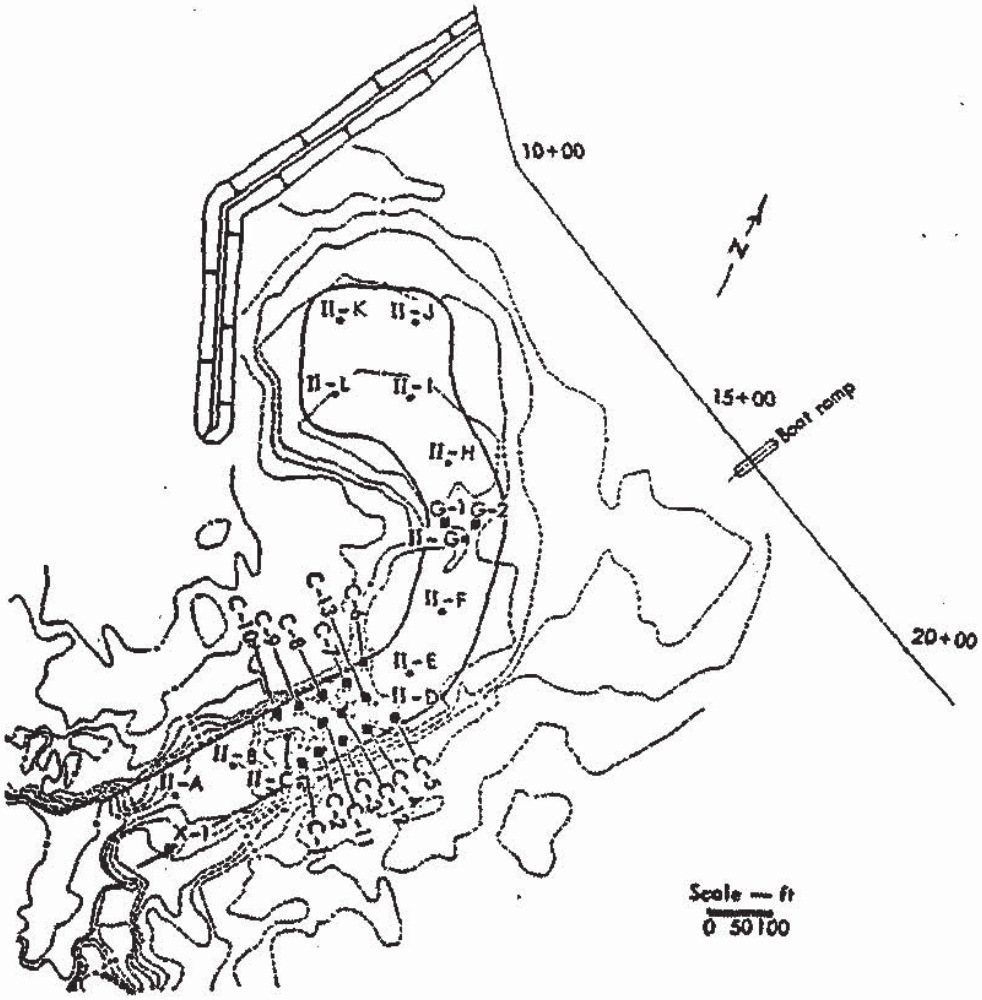
2.3 BACKGROUND. A small boat harbor at Kawaihae has been planned for decades. In 1955 the Kawaihae Deep-draft Harbor was planned without a light-draft component. By 1963 the southern end of the deep-draft harbor was planned for light-draft vessels. In 1968 the southern end of the deep-draft harbor was again planned for light-draft vessels. In 1969 and 1970 the existing breakwater, turning basin and entrance channel were constructed as part of Operation Tugboat by the U.S. Army Engineer Nuclear Cratering Group as part of the plan to develop the light-draft harbor outside the deep draft harbor (Figure 4). A Final Environmental Statement was filed with the Council on Environmental Quality in 1971, and an Information Supplement to the Final Environmental Statement was filed with the Environmental Protection Agency in 1978. The State of Hawaii Department of Transportation, Harbors Division prepared a Development Plan for Kawaihae Boat Harbor in 1984 which explained the infrastructure the State intended to develop for the light draft harbor. These earlier plans were all for a 300 boat harbor (Figure 5). In 1991 it was decided to downsize the harbor to 90 boats because of economic and social concerns. The infrastructure for the downsized harbor will be similar but reduced in scope from the 300 boat harbor. The present harbor project has the support of the local community, based on the premise that no further marina construction will occur on the South Kohala coast.



EXISTING KAWAIHAE HARBOR COMPLEX

Figure 3

PROJECT TUGBOAT

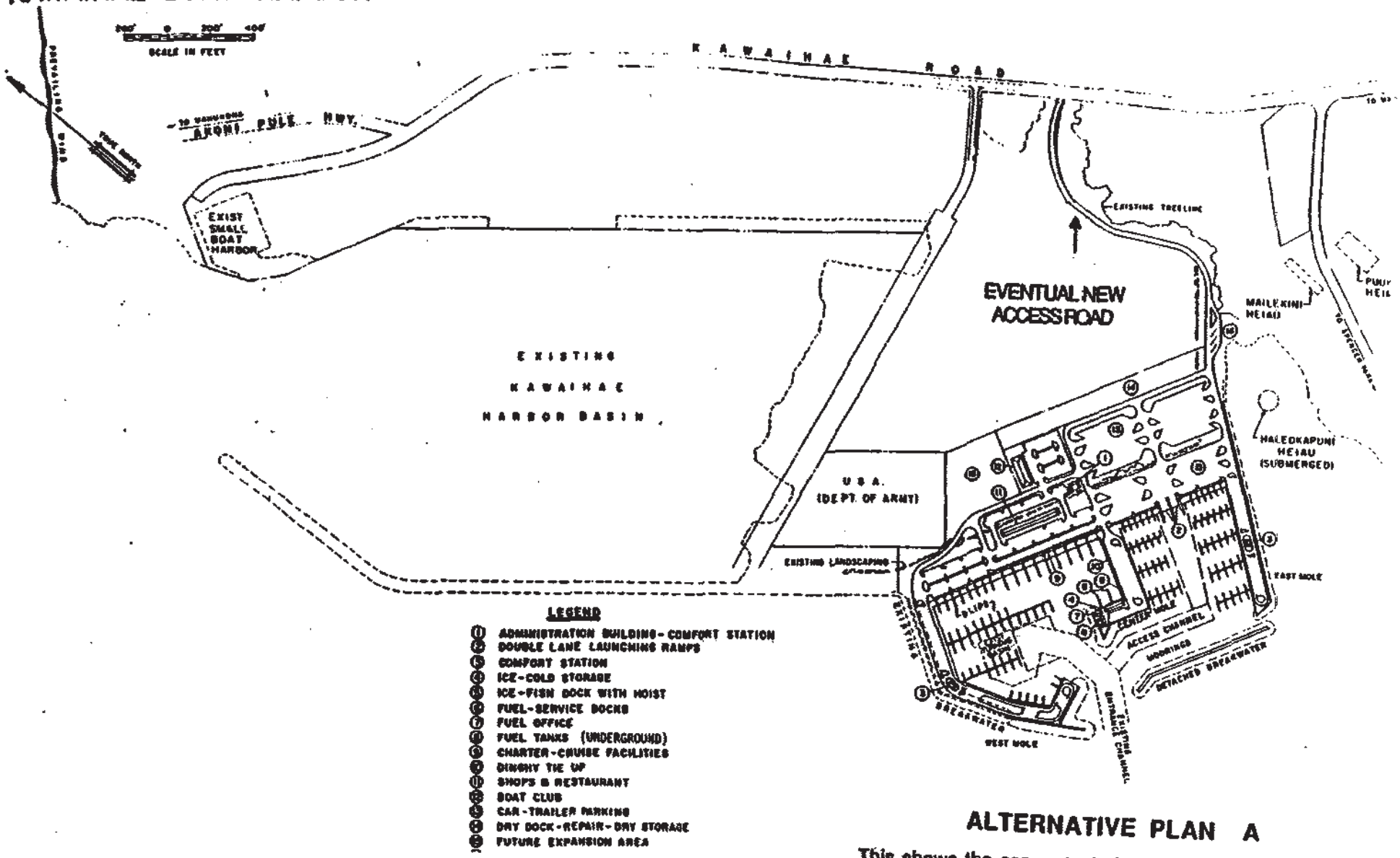


Sea bottom topography following blasting of the Kawaihae Small Boat Harbor, showing location of explosive charges.

Adopted from WES Technical Report E-72-23
Project Tugboat Explosive Excavation of a
Harbor in Coral - W. C. Day, February 1972

Figure 4

KAWAIHAE BOAT HARBOR



ALTERNATIVE PLAN A

This shows the conceptual plan for the 300 boat harbor however, the area shown for shoreside facilities will continue to be dedicated to the small boat harbor.

Adopted from the Final Environmental Impact Statement for Development of Kawaihae Boat Harbor Kawaihae Hawaii - Harbors Division, State of Hawaii, July 1985

Figure 5

CHAPTER 3

ALTERNATIVES

3.1 THE PROPOSED ACTION. The proposed design for the Federal portion of the project is for a 90 boat harbor, utilizing the existing breakwater, entrance channel and turning basin (Figure 2). The harbor would be protected by an extension of approximately 370 feet to the existing west breakwater, along with an east revetted mole and breakwater combination with a total length of 740 feet. The entrance channel would be 850 feet long, 120 feet wide and 12 feet deep, and the turning basin would cover about 2 acres and be 12 feet deep. The entrance channel and turning basin are already at project depth.

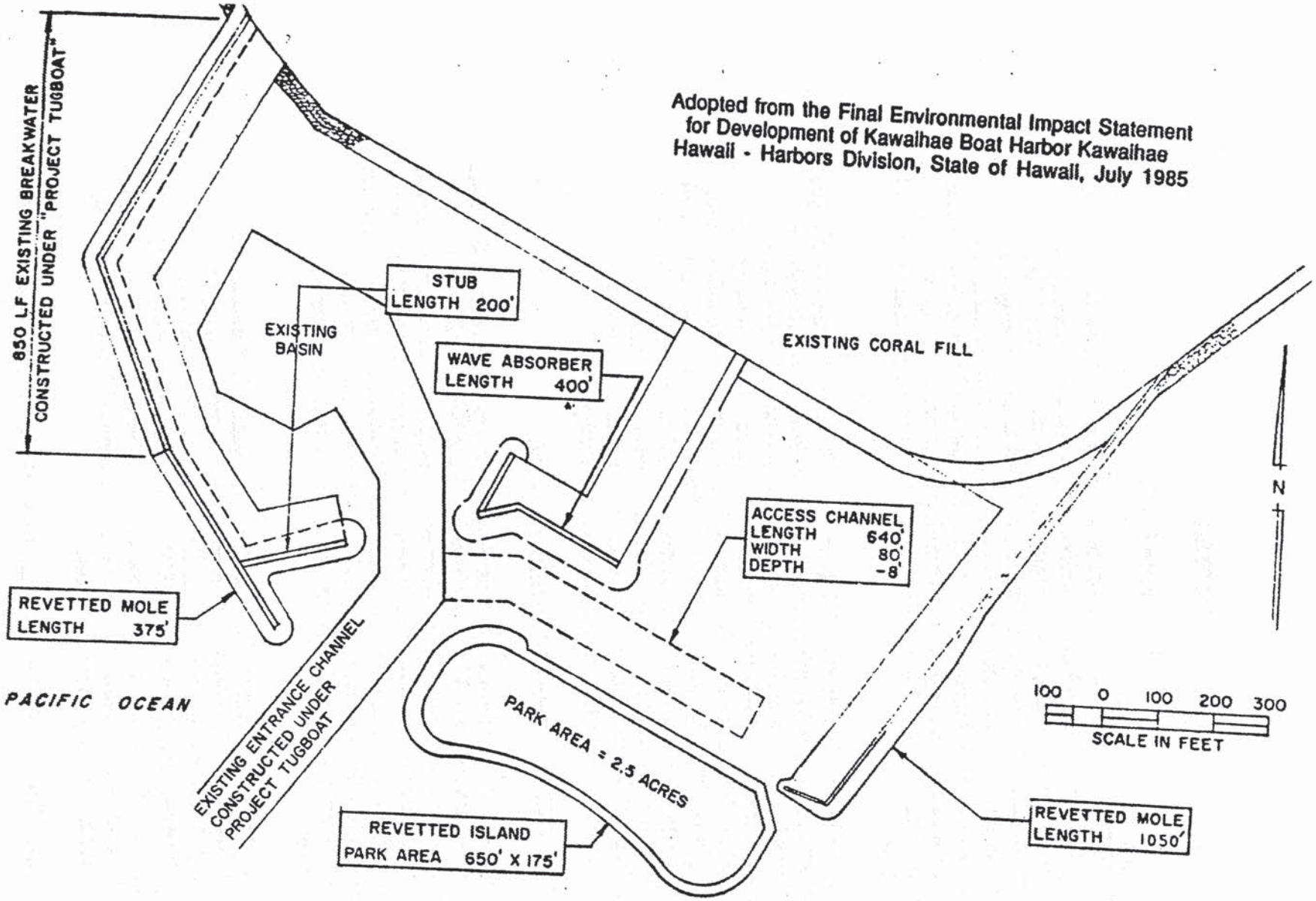
3.2 STATE OF HAWAII IMPROVEMENTS. The State of Hawaii has not yet developed detailed plans for the portion of the project for which they are totally responsible. In general, they will provide the berthing facilities, wastewater treatment and other shoreside ancillary facilities necessary to support a 90-boat harbor, to include landscaping to mitigate a possible effect on the viewplane from Pu'ukohola Heiau National Historic Site. They will also eventually provide a new access road to the harbor (Figure 5). Because detailed plans are not now available, additional environmental documentation will be required for the State of Hawaii portion of the improvements when they have been funded and designed.

3.2 ALTERNATIVES TO THE PROPOSED ACTION.

3.2.1 Alternative Plan A (Figure 5). Plan A is the design discussed in the State of Hawaii 1984 Development Plan for Kawaihae Boat Harbor. It would accommodate about 300 boats. The harbor would be protected by an extension and reconstruction of the existing west breakwater to create a revetted mole 1,225 feet long (375-foot extension); an interior wave absorber 400 feet long; an east revetted mole 1,050 feet long; and a detached breakwater 650 feet long. The entrance channel and turning basin would be as described for the proposed action.

3.2.2 Alternative Plan B (Figure 6). Plan B is the design identified as the preferred alternative in the General Design Memorandum (GDM) and Environmental Statement for the project circulated in 1971, and the Information Supplement circulated in 1978. It would also accommodate about 300 boats, and have all the same features as Alternative Plan A, except the detached breakwater would be replaced by a revetted island, 650 feet long and 175 feet wide, covering about 2.5 acres.

3.2.3 No Action. The No Action Alternative would leave the harbor as it is



Adopted from the Final Environmental Impact Statement for Development of Kawaihae Boat Harbor Kawaihae Hawaii - Harbors Division, State of Hawaii, July 1985

KAWAIHAE SMALL BOAT HARBOR

ALTERNATIVE PLAN B

Figure 6

now. Some boats would continue to moor in the lee of the existing breakwater. The State of Hawaii would likely repair the existing launch ramp so that small commercial and recreational boats (35 feet or less) could launch.

3.3 ALTERNATIVES ELIMINATED FROM DETAILED PLANNING FOR THIS REFORMULATION STUDY

3.3.1 Other alternatives addressed in the 1971 GDM were the detached breakwater alternative and a detached revetted island with sand beach. The detached breakwater alternative was not selected for aesthetic reasons, and the beach alternative was not selected because the additional cost could not be justified in view of the existence of two nearby State of Hawaii beach parks. The detached breakwater alternative was reanalyzed in this report because it was the State of Hawaii's preferred alternative in the 1984 Development Plan for Kawaihae Small Boat Harbor. The beach alternative was not considered in this reformulation study for the same reason it was not selected as the preferred alternative in the 1980 study--the additional cost could not be justified because of the close proximity of Spencer Beach Park.

3.3.2 Private Development. Private development of the harbor was considered briefly by the State of Hawaii early in the reformulation planning process. This possibility was eliminated because of community opposition. The present harbor project has the support of the local community, based on the premise that no further marina construction will occur on the South Kohala coast.

CHAPTER 4

AFFECTED ENVIRONMENT

4.1 LOCATION. The Kawaihae Harbor for Light Draft Vessels study area is located on the leeward coast (northwest coast) of the Island of Hawaii (Figure 1), the largest island in the Hawaiian chain. The general setting is rural; the nearest large population centers are the town of Kailua Kona, about 25 miles south and Waimea, about 10 miles east. The adjacent Kawaihae Deep Draft Harbor was initially completed in 1959 and expanded in 1973. The coral reef material dredged from the harbor was placed in a revetted area at the southeastern end of the harbor (Figure 3) (U.S. Army, 1978).

4.2 PHYSICAL CONDITIONS

4.2.1 Climate. The northwest coast of the island of Hawaii has a generally hot, arid, savanna-like climate. Mean annual temperature is about 78 degrees F.; relative humidity about 40 percent; and average rainfall about 10 inches per year.

4.2.2 Natural Hazards. The study area is subject to seismic activity, and is located between two volcanoes, Mauna Kea and Hualalai, neither of which is considered extinct. It is also subject to coastal flooding from tsunamis and large storms according to the Federal Emergency Management Agency Flood Insurance Rate Map (FIRM), Community-Panel Number 155166-0137C, revised 16 September 1988.

4.2.3 Air Quality. The study area is in a generally under developed area, with no sources of industrial air pollution nearby. The greatest source of air pollution is the periodic eruptions from Kilauea Volcano. In addition, the coral fill area adjacent to the harbor site is a source of dust, particularly during periods of high wind. The State of Hawaii does not have an air quality monitoring station on the Island of Hawaii. Air quality is monitored at 10 stations, 7 on Oahu, 2 on Maui and 1 on Kauai. Between January 1988 and December 1990 a total of about 5,000 air samples were taken for 6 pollutants. During that time none of the samples exceeded the Federal Air Quality Standards, and only 4 exceeded the State of Hawaii standards. All 4 were in Honolulu on the island of Oahu (State of Hawaii, undated).

4.2.4 Noise. The ambient noise level in the project area is generally low, with boat and vehicle traffic and the wind being the main sources.

4.2.5 Water Quality. The waters of the Kawaihae Boat Harbor are designated Class A waters by Hawaii Administrative Rules, Chapter 11-54. The waters outside the harbor are Class AA. The Department of Health

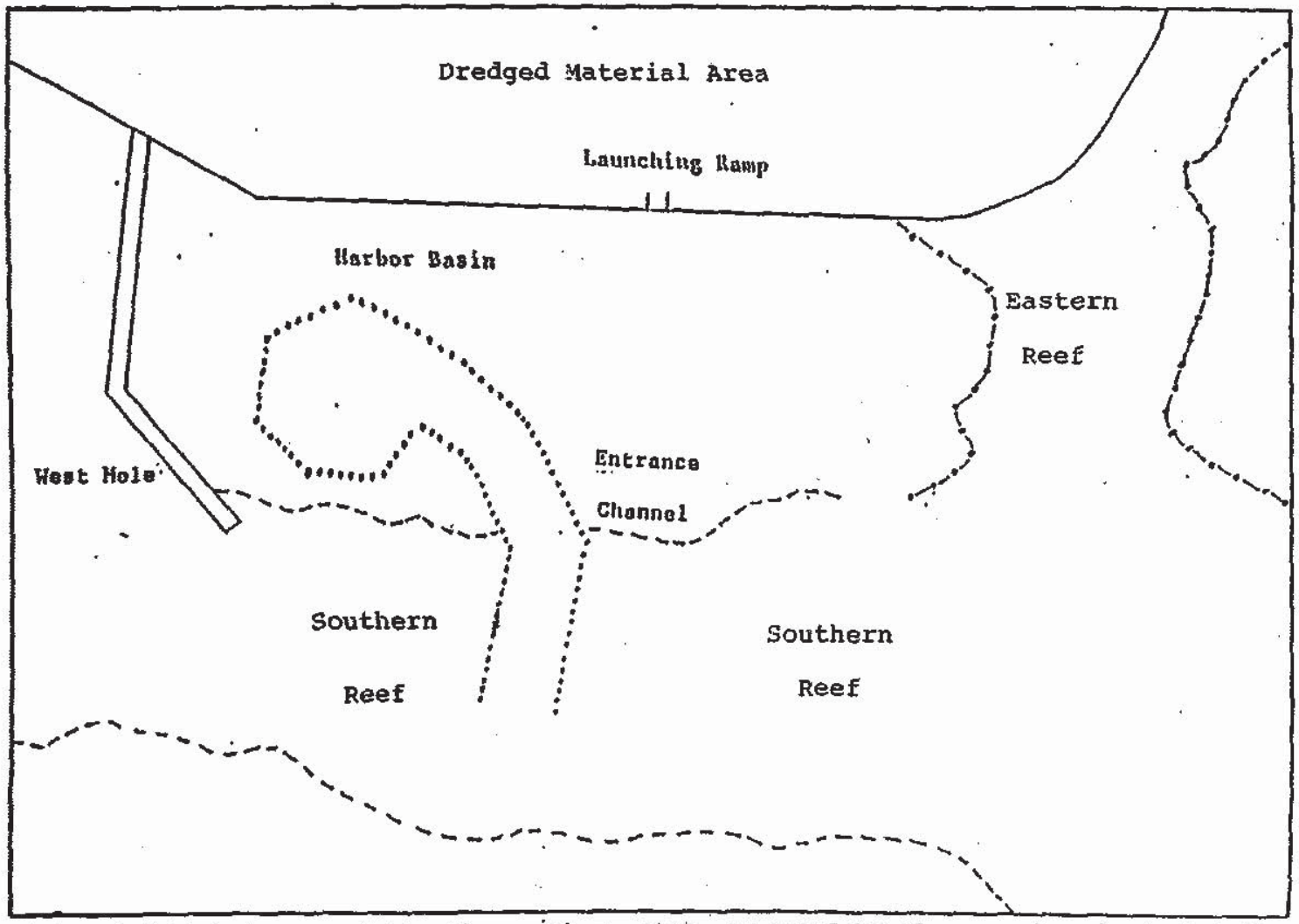
(DOH) does not routinely sample the waters of the harbor nor the waters immediately outside the harbor; however, in April and May 1991 samples were taken in the harbor and analyzed for 11 metals. All were well within the published standards (DOH printout Aug. 94). The nearest DOH coastal water monitoring station is at Spencer Beach Park. Water quality standards were violated at this station (No. 1225) in 34% of the samples taken (INALAB,Inc., 1992). Observed turbidity within the harbor basin is generally high compared to the waters outside the harbor, but no measurements have been taken.

4.3 BIOLOGICAL RESOURCES.

4.3.1 Terrestrial resources (USFWS, 1993). The terrestrial biota in the proposed project area is sparse and common. It consists generally of introduced plants and a few common native grasses and weeds, along with introduced birds, feral cats, mongooses, geckos and skinks. Common native shore birds such as the Ruddy Turnstone, California Plover, Wandering Tattler, etc. frequent the area, but do not nest or breed there.

4.3.2 Aquatic Resources (USFWS, 1993). There are at least four major habitat subdivisions within the project site none of which is unique. They include the harbor basin, the entrance channel, the relatively rich southern reef and the relatively depauperate eastern reef (Figure 7). The reef-fish community within the harbor basin is relatively diverse, but overall abundance is low. At the eastern edge of the harbor basin the few limestone knobs have an average of 83% coral coverage, but overall the coral coverage in the basin is very low. The entrance channel supports a depauperate reef-fish community. The U.S. Fish and Wildlife Service reported at least 68 species of fishes within the southern reef habitat and a well developed coral community. At least one local fisherman nets *akule* (Trachurops crumenophthalmus) within the proposed harbor basin. Only 11 species of coral were observed, with the highest diversity in the southern reef habitat area. Other macro-invertebrates observed were common sea urchins, the crown of thorns starfish and a triton's trumpet. The area is also known for its unusual abundance of sharks, especially small black tip, grey reef and reef white tip sharks. The sharks may be attracted by the large schools of mullet reported in the area. For more details about the aquatic resources, see the U.S. Fish and Wildlife Service's 2(b) report in Appendix B.

4.3.3 Threatened and Endangered Species. There are no Federally listed endangered, threatened, candidate or proposed species of terrestrial plants or animals or their critical habitat within the project area. The endangered Hawaiian Hawk and Hawaiian Bat may occasionally forage in the general harbor area, and the Hawaiian Owl, listed on the State of Hawaii Endangered Species List may also occasionally forage in the area. None of these rare terrestrial species nest, breed or roost in the area. In contrast, two



Major habitat types within the project site surveyed by the service included the Harbor Basin, Entrance Channel, Eastern Reef, and Southern Reef

Adapted from the Fish and Wildlife Coordination Act Report
Kawaihae Small Boat Harbor, U.S. Department of the Interior
Fish and Wildlife Service, Pacific Islands Office, July 1985

Figure 7

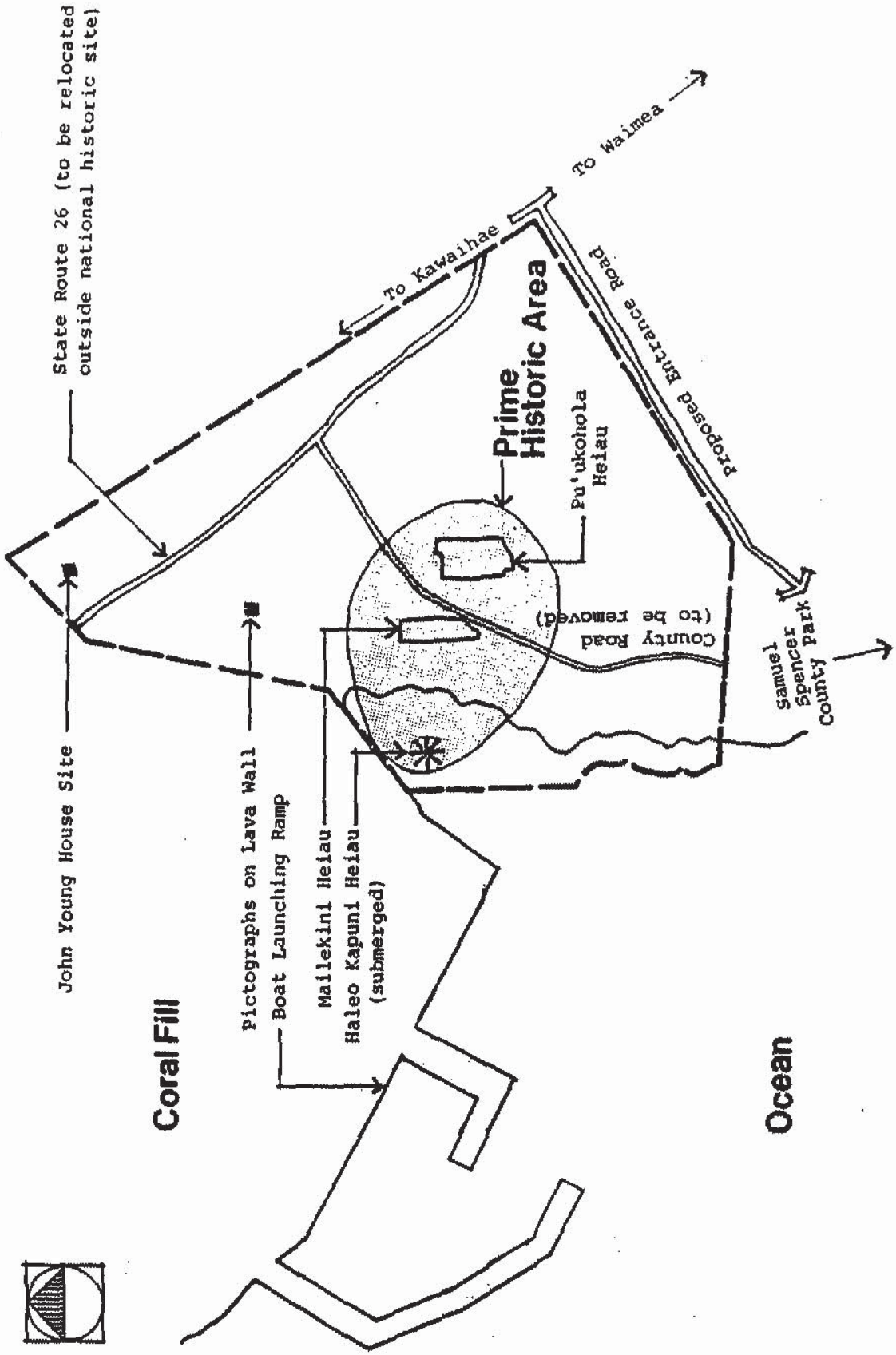
rare marine species are common in the area. The federally listed endangered humpback whale is often seen in the area during the "whale season" (December-May annually). Threatened green sea turtles, especially juveniles, are seen almost daily. It is not uncommon to see 4-6 young turtles near the small boat harbor breakwater. In August 1992, an observer from the National Marine Fisheries Service counted 32 green sea turtles, mostly juveniles, in the area outside and adjacent to the existing breakwater. Although it is undoubtedly a feeding area for these turtles it is not suitable for nesting or basking because there is no convenient access to the land, and the land is unsuitable for nest building.

4.4 ARCHAEOLOGICAL RESOURCES. There are no sites listed on or eligible for the National Register Historic Places located within the harbor or the area designated for shoreside facilities or the area to be traversed by heavy equipment or used as the contractor's work and storage area. The entire shoreside area which will be involved in the project, including the present access road, is on fill land created from the dredging of the adjacent deep draft harbor.

Immediately adjacent to the south of the proposed harbor site is the Pu'ukohola Heiau National Historic Site, a National Landmark operated by the National Park Service. The major features within the park are the Pu'ukohola *heiau*, Mailekini *heiau*, Hale o Ka Puni *heiau*, the upper portion of the John Young homestead and the Pelekane (royal household area) (Figure 8). These features are very significant in Hawaiian history, especially Pu'ukohola *heiau*, which was the principal war temple of Kamehameha I, the great king who first united all the Hawaiian Islands. Features of the lower portion of the John Young homestead may have been located in the area planned for the eventual new access road for the small boat harbor. There are no surface remains, but historic documents suggest that subsurface features could be present under the covering fill material (Appendix A).

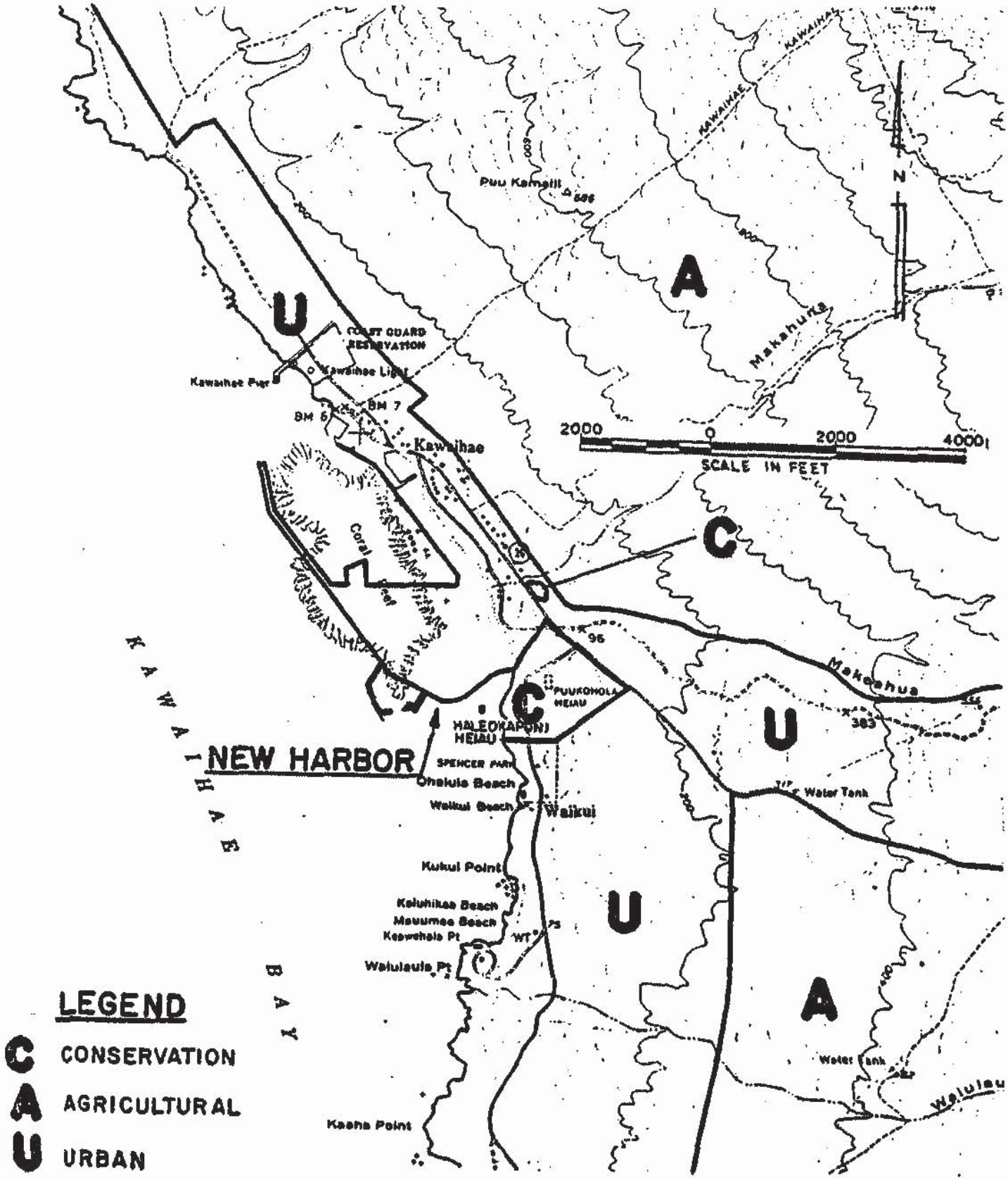
4.5 SURFING. There is an unnamed surf break in the vicinity of the breakwater extension. It is identified only as Kawaihae Site 2 in the 1971 Statewide Surfing Site Survey.

4.6 LAND USE. Most of the land along the coast in this area is designated for Urban use by the State of Hawaii (Figure 9), and most of it within the harbor area is zoned General Industrial (Figure 10). Most of the land within the harbor area is owned by the State of Hawaii Department of Transportation, Harbors Division, although a small parcel is leased by the Federal government, Department of the Army (Figure 11). The portion of the land designated for shoreside facilities for the small boat harbor has been transferred to the Department of Land and Natural Resources, Division of Boating and Ocean Recreation.



RELATIONSHIP OF RECOMMENDED KAWAIHAE SMALL BOAT HARBOR TO PU'UKOHOLA HEIAU NATIONAL HISTORIC SITE

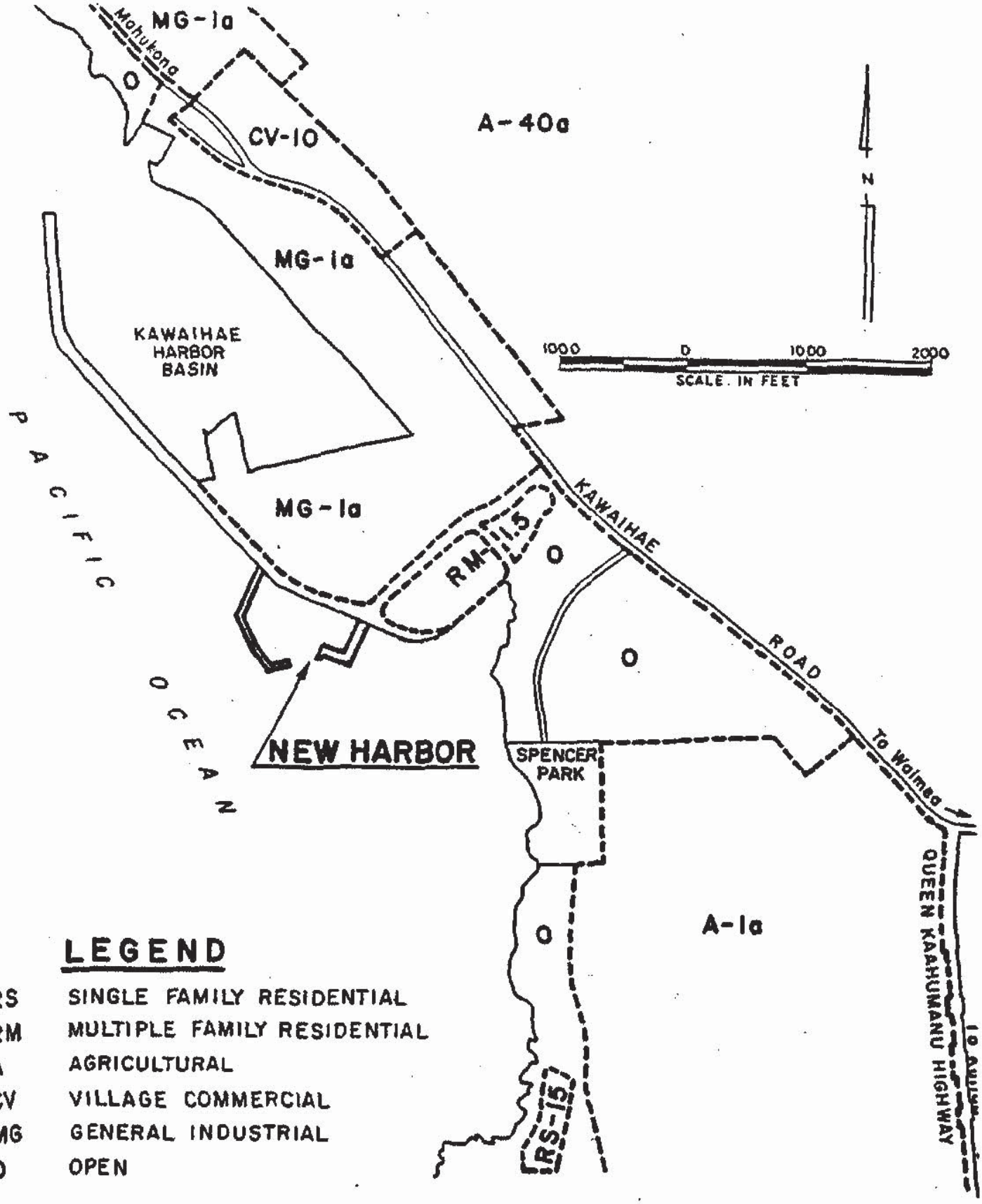
Figure 8



Adopted from the Final Environmental Impact Statement for Development of Kawaihae Boat Harbor Kawaihae Hawaii - Harbors Division, State of Hawaii, July 1985

LAND USE MAP

Figure 9



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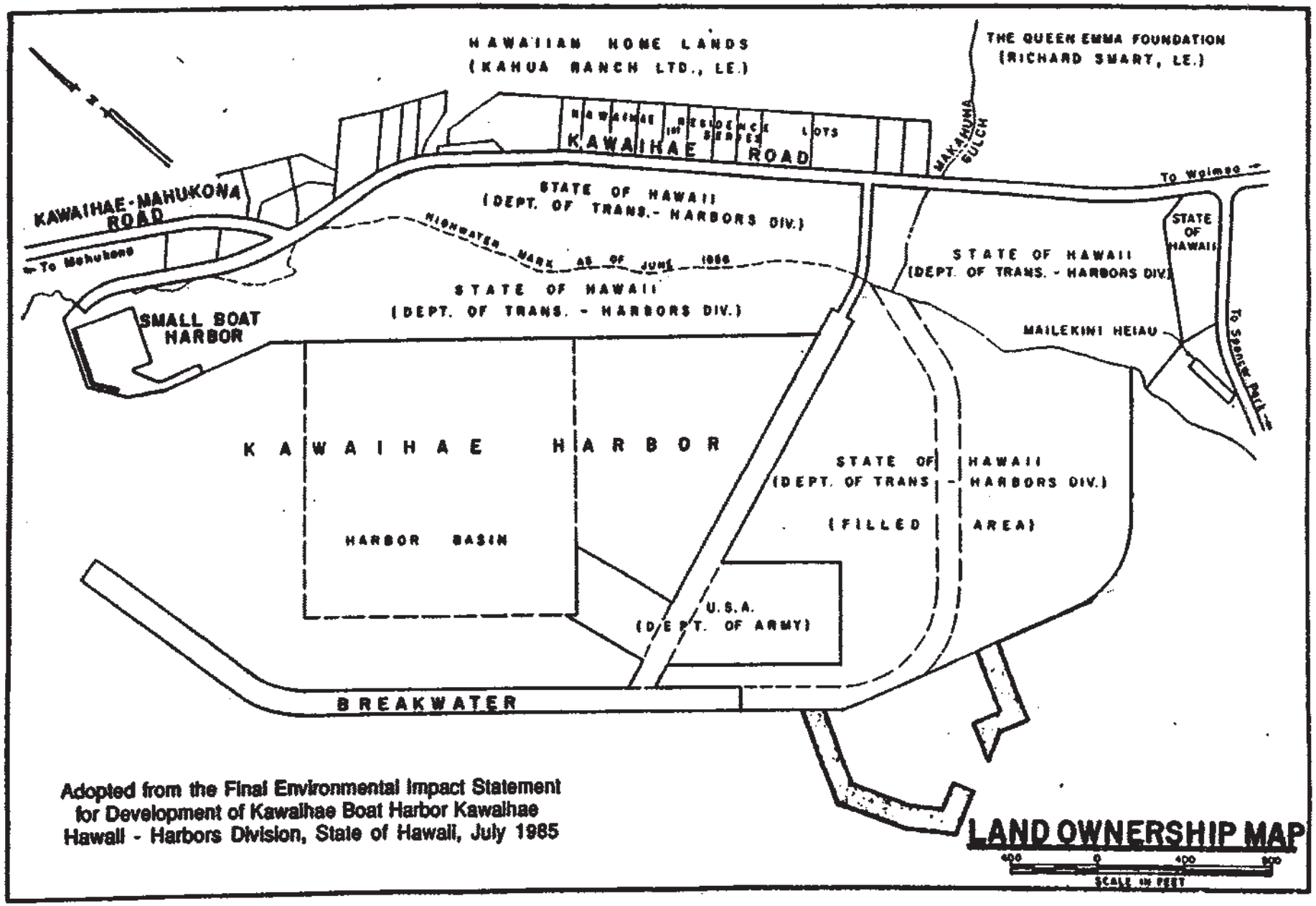
ZONING MAP

Figure 10



Adopted from the Final Environmental Impact Statement for Development of Kawaihae Boat Harbor Kawaihae Hawaii - Harbors Division, State of Hawaii, July 1985

Figure 11

4.7 WASTEWATER TREATMENT. There are presently no toilet or wastewater treatment facilities in the vicinity of the proposed small boat harbor area. The Kawaihae area is in a critical wastewater disposal area as determined by the Hawaii County Wastewater Advisory Committee. This designation means that individual house lots are limited to 1,000 gallons of waste water per day. This limitation does not directly apply to Federal or State government actions; but limits will be determined on a case-by-case basis.

CHAPTER 5

ENVIRONMENTAL CONSEQUENCES

5.1 EFFECTS ON PHYSICAL CONDITIONS. Unless indicated, the effects on the following items will be essentially the same for all the alternatives considered in detail except the No Action alternative.

5.1.1 Climate. None of the alternatives will have an effect on the climate of the area.

5.1.2 Natural Hazards. The proposed project will have no effect on the natural hazards of the area, but the increased number of boats and ancillary facilities resulting from this project has the potential to increase the dollar value of damages resulting from natural disasters if they occur in this area. The dollar value of damages for the 300-boat alternatives would likely be about three times that of the 90-boat alternative (the selected plan). For the No Action alternative there would be no significant increase in the amount of damage caused by natural hazards over the present potential.

5.1.3 Air Quality. Construction activities will increase dust and vehicle exhaust emissions in the project area; however, these effects will be temporary and only affect the near vicinity of the project. The Federal portion of the project involves earth moving for coral fill during construction of the east revetted mole, but not for the wave absorber or breakwater extension. The State portion of the project will also require earth moving and grading for construction of the parking lot, new access road and other facilities. The contractors for both the Federal portion and the State of Hawaii portion of the project will be required to conform with State air quality standards. There may be a slight increase in dust after completion of the Federal portion of the project, due to the increased traffic to and from the harbor over the unimproved access road. The increase is expected to be slight because of the small number of boats involved, and the fact that many of the boats which will use the harbor are presently moored in the deep-draft harbor where the access route is also mostly unimproved. Upon completion of the State of Hawaii portion of the project, air quality in the area will improve because of the reduction in dust which will result from the landscaping and infrastructure development. There will be an increase in exhaust emissions from vehicles and boats, but it is expected to be insignificant because of the small number of vehicles and boats involved, and the rapid dispersal caused by the trade winds. The 300-boat alternatives would have a greater impact on air quality than the 90-boat alternative (the selected plan). The No Action alternative would not change the air quality of the area from its present condition.

5.1.4 Noise. Noise levels will be temporarily increased during construction of both the Federal and State portions of the project by the operation of heavy construction equipment. The duration of this increase would be greater for the 300-boat alternatives than the 90-boat alternative. There may be a slight increase in noise after project completion, due to the increased number of boats which will use the harbor. The increase is expected to be very slight because of the small number of boats involved, and the fact that many of the boats which will use the harbor are moored in the deep-draft harbor, or trailered boats which formerly launched at Kawaihae. This increase would be greater for the 300-boat alternatives than the 90-boat alternative. Under the No Action alternative, if the State repairs the launch ramp, there would be a slight increase in noise from the present level.

5.1.5 Water Quality. There will be an increase in turbidity during construction; however, no dredging is expected to be required for the Federal portion of the project. The placing of fill for the east revetted mole will provide a new source for particulates to enter the water; however, this material can be easily controlled inside the harbor by the use of silt containment devices. The placement of rocks for the protective structures will generate only a small temporary increase in the level of turbidity within the harbor, and an insignificant change outside the harbor. Upon completion of the State of Hawaii portion of the project, there should be less turbidity since much of the fill area will be landscaped and/or paved, so there will be less sediment in runoff and much less dust blowing into the harbor basin. The No Action alternative would have no effect on water quality.

5.2 EFFECTS ON BIOLOGICAL RESOURCES. Unless indicated, the effects on the following items will be generally the same for all the alternatives considered in detail except the No Action alternative; however, they will be quantitatively greater for Alternatives A and B (the 300-boat harbor).

5.2.1 Terrestrial Resources. There are no significant terrestrial resources in the project area. The plants and animals which will be affected are either exotics or common grasses and weeds. The No Action alternative would have no effect on terrestrial resources.

5.2.2 Aquatic Resources. For the proposed action there will be a loss of about 1.2 hectares (3.0 acres) of habitat from construction of the east revetted mole and breakwater, and about 0.6 hectare (1.5 acres) lost from construction of the west breakwater extension. Much of the area to be covered by the east revetted mole and breakwater is sand, silt and coral rubble with some coral covered limestone knobs. The area to be covered by the west breakwater extension consists mainly of hard substrate, with good coral coverage and fish population although without much vertical topography. The ungrouted armor stone of the mole and breakwaters will provide firm substrate for

encrusting corals and those that form small colonies, and it will also provide habitat for reef fish, although the community composition may be different. The habitat thus formed will be less than that lost, and the *akule* fishery within the harbor basin will be lost. Many of the boats expected to be berthed in the harbor are now moored in the deep-draft harbor or the protected mooring area behind the existing breakwater or are trailered. Many of these boats are presently exploiting the local fishery resource, and it is believed that there will be very little change in the level of exploitation of that resource. The No Action alternative would have no effect on aquatic resources. As partial mitigation for the potential loss of coral and other aquatic resources caused by the project, a nearby area has been surveyed for an ancient religious structure (*heiau*). Hale O Ka Puni (the shark *heiau*,), is located within the proposed boundary of Pu'ukohola National Historic Site operated by the National Park Service. The area adjacent to this structure was once a prime nursery area for mullet. Resource agencies are developing plans to restore the area by removing the accumulated silt which has supposedly covered the *heiau*, and significantly degraded the mullet habitat. Before this larger project can be started, the location of the *heiau* must be found so that it will not be damaged during subsequent operations. Only its general location is known at present. In August 1993 the Corps' Geotechnical Laboratory of the Waterways Experiment Station used state-of-the-art magnetic, electro-magnetic and ground penetrating radar equipment, to survey the area. The data generated through this investigation has been provided to the State of Hawaii Office of Hawaiian Affairs and the National Park Service so that they can interpret it and make recommendations to prevent follow-on activities from damaging potentially significant cultural resources. Additional recommended mitigation actions are listed in paragraphs 5.7.1 through 5.7.4.

5.2.3 Threatened and Endangered Species. No blasting is anticipated for the proposed project, therefor no construction related significant effects are expected to impact threatened or endangered species. The small size of the harbor and the fact that most of the boats are already in the area, makes it unlikely that boat traffic in the area will increase enough to impact either the endangered humpback whale or the threatened green sea turtle. The National Marine Fisheries Service concurred in this opinion. To mitigate possible construction effects on the green turtle, turtle surveys will be conducted immediately prior to construction, periodically during construction and following construction to assure the construction does not have an adverse effect on the turtle. The No Action alternative would have no effect on threatened and endangered species.

5.3 EFFECTS ON ARCHAEOLOGICAL RESOURCES. The proposed project will have no adverse effect on any historic properties in the vicinity. As part of the Corps' compliance with Section 106 of the National Historic Preservation Act, Memoranda of Agreement have been developed between the Corps, State Historic Preservation Officer, Department of Land and

Natural Resources Division of Boating and Ocean Recreation, National Park Service and the Office of Hawaiian Affairs, dated 15 August, 1994, which collectively provide for mitigation of possible visual impacts on Pu'ukohola Heiau National Historic Site through appropriate landscaping. In addition, a survey will be performed in the area proposed for the eventual new access road. If appropriate, based on the results of the survey, a qualified archaeologist will develop an historic properties management plan for the State of Hawaii prior to construction. This action will mitigate effects on possible subsurface features. Traffic by heavy equipment will be much less than would have been required for the 300-boat harbor, with the operation taking place on the fill land area or in the water. Because of the discontinuity of the geological layers, vibrations from the operation of heavy equipment on the fill area are not expected to affect any of the historic properties. The nearby Makeahau Quarry will not be used as a source of rock for this project because of possible damage to historic properties (particularly the John Young Homestead) which might be caused by the quarrying operation. The No Action alternative could result in increased visual impacts to the historic site, depending on the type of future development and deep draft harbor expansion into the area now designated for the small boat harbor shore facilities.

5.4 SURFING. The breakwater extension may slightly modify the unnamed surf break (Kawaihae Site 2) in an unknown but potentially adverse, way. In spite of the potentially negative impact, the surfing community generally supports the proposed project because of the overwhelming community need.

5.5 EFFECTS ON LAND USE. The construction and operation of the proposed small boat harbor is not expected to have any effect on land use or zoning in the immediate area. The present harbor project has the support of the local community, based on the premise that no further marina construction will occur on the South Kohala coast. The Department of Transportation has assured the Army that its needs in Kawaihae Harbor will definitely be accommodated. The land designated for use by the small boat harbor in the Total Harbor Development Plan has been transferred to the Department of Land and Natural Resources, Division of Boating and Ocean Recreation, without change in land use. There are proposals by private developers in various stages of planning for use of nearby land, but these plans are not known to depend on or be influenced by the development of the proposed small boat harbor. Neither Harbors Division nor the Division of Boating and Ocean Recreation has plans to develop residential housing in the area zoned RM. Harbors Division intends to have that parcel rezoned to MG-General Industrial like the rest of the harbor complex. The effects of the No Action alternative on land use are unknown at this time.

5.6 WASTEWATER TREATMENT. The proposed 90-boat harbor will require toilet, pumpout and wastewater facilities. These facilities will be provided by the local sponsor, the Division of Boating and Ocean Recreation, Department of Land and Natural Resources as funds become available. Wastewater treatment plans will conform to the requirements of the State of Hawaii Department of Health (DOH) Administrative Rules, Chapter 11-62, "Wastewater System", and will be coordinated with the DOH.

5.7. MITIGATION

5.7.1 a. The Corps conducted a subsurface survey to locate the remains of the Hale O Ka Puni heiau as partial mitigation for the destruction of coral and other marine habitat. In August 1993 the Corps' Geotechnical Laboratory of the Waterways Experiment Station used state-of-the-art magnetic, electro-magnetic and ground penetrating radar equipment, to survey the area. The area adjacent to this structure was once a prime nursery area for mullet. Resource agencies are developing plans to restore the area by removing the accumulated silt which has supposedly covered the *heiau*, and significantly degraded the mullet habitat. Before this larger project can be started, the location of the *heiau* must be found so that it will not be damaged during subsequent operations. Only its general location is known at present. The data generated through this investigation has been provided to the State of Hawaii Office of Hawaiian Affairs and the National Park Service so that they can interpret it and make recommendations to prevent follow-on in-water activities from damaging potentially significant cultural resources.

b. As a result of consultation with USFWS and NMFS, a study of the marine flora and fauna of the Pu'ukohola Heiau National Historic Site is recommended to update the National Park Service Technical Reports #13 dated January 1977 and #16, dated February 1977.

5.7.2 The following measures, contained in the U.S. Fish and Wildlife Service's Coordination Act Report dated 19 October, 1994, are recommended to mitigate the effects of the project on environmental resources.

a. No construction materials should be stockpiled in the marine environment.

b. Fills should be protected from erosion with armor stone as soon after completion as practicable.

c. Breakwaters and revetments should be constructed of large boulders and/or dolosse to dissipate wave energy and resist erosion.

d. All construction-related materials should be placed or stored in ways to avoid or minimize disturbance to the reef.

e. All construction-related materials should be free of pollutants.

f. No contamination of the marine environment should result from construction activities.

g. A contingency plan to contain and control accidental spills of petroleum products within the proposed small boat harbor should be developed. Absorbent pads and containment booms should be stored on-site to facilitate the clean-up of petroleum spills.

h. A coral transplantation and monitoring plan should be developed. The Corps is coordinating with USFWS, NMFS and the Division of Aquatic Resources (DAR) to determine appropriate techniques and monitoring procedures to determine effectiveness.

i. In consultation with USFWS and NMFS a study of Pelekane Bay is recommended to update the information contained in Tech Reports #13 and #16 prepared for the National Park Service in 1977, to determine the degree of degradation of the habitat that has occurred since the original reports.

5.7.3 The following items, contained in NMFS letter dated September 14, 1994 are recommended to insure that humpback whales or green turtles are not adversely affected by construction activities.

a. One or two surveys immediately prior to the start of construction to confirm the findings of earlier surveys by the NMFS should be conducted. Additional surveys for sea turtles during and post-construction should also be conducted as part of an overall project monitoring plan.

b. To the extent possible, construction activities should be concentrated during the period June through November, to reduce any possible effects from noise or turbidity on humpback whales.

5.7.4 The following additional mitigation measures are recommended.

a. Contractors for both the Federal portion and the State of Hawaii portion of the project should be required to conform with state air quality and water quality standards.

b. The construction contractor should be required to prepare an environmental protection plan, to be approved by the Contracting Officer, before starting construction.

c. In the unlikely event that blasting is required, the contractor should prepare a blasting plan, to be approved by the Contracting Officer and

coordinated with the NMFS, to assure that humpback whales or green turtles are not adversely affected.

5.7.5 There will be no dredging for this project, therefor the several USFWS recommendations concerning dredging are not applicable.

CHAPTER 6

DISTRIBUTION LIST

Copies of the Final Environmental Assessment were sent to the agencies and individuals listed below.

FEDERAL AGENCIES

U.S. Fish and Wildlife Service
National Marine Fisheries Service
National Park Service
Forest Service
U. S. Coast Guard
Hawaii Congressional Delegation

STATE OF HAWAII AGENCIES

Governor of the State of Hawaii
Hawaii County Legislators
Department of Land and Natural Resources
Department of Health
Department of Transportation
Department of Hawaiian Home Lands
Office of Hawaiian Affairs
Office of Environmental Quality Control
Environmental Center, University of Hawaii
Hamilton Library, University of Hawaii
University of Hawaii, Hilo
Kailua-Kona Library

HAWAII COUNTY AGENCIES

Mayor of the County of Hawaii
Hawaii County Council
Department of Planning
Department of Public Works

PRIVATE AGENCIES AND INDIVIDUALS

Big Island Fish and Game Association
Kawaihae Boating Association
Waimea-Kawaihae Community Association
Barbara Haight/North Hawaii Surfer's
Kohala Trollers Club

CHAPTER 7

CONCLUSIONS (FINDINGS)

7.1 BACKGROUND. A Corps of Engineers General Design Memorandum for Kawaihae Harbor for Light-draft Vessels and a Final Environmental Statement were published in August 1971 and filed with the Council on Environmental Quality. The Environmental Statement identified the loss of about 33 acres of shallow reef habitat for the 300-boat harbor. In June 1978 a Supplement to the Final Environmental Statement was published and filed with the Environmental Protection Agency. The supplement identified additional environmental impacts associated with construction noise, air quality, water quality and possible change from traditional lifestyles and ethnic makeup. These impacts were all based on the design for a 300-boat harbor. The State of Hawaii published a Final Environmental Impact Statement for Development of Kawaihae Boat Harbor in July 1985 and identified impacts similar to those in the Federal Environmental Statements.

In accordance with Engineering Regulation 200-2-2 between 1989 and 1992 the environmental documentation for the project was reviewed for adequacy, and various environmental aspects were restudied.

7.2 CONCLUSION. Some of the environmental conditions of the project area have changed since the environmental studies conducted in the 1970s and 80s; however it is concluded that the mitigated impacts from the redesigned 90-boat harbor are much less than reported in the earlier documentation, and that the 90-boat harbor, with the mitigation proposed, will not have significant environmental effects warranting the preparation of an environmental impact statement.

CHAPTER 8

REFERENCES USED

Ball, Frederick W., 1977. Benthic Marine Algae of the Coastal Waters of Puukohola Heiau National Historic Site, National Park Service Technical Report #16, February 1977. University of Hawaii, Honolulu, Hawaii.

Cheney, Daniel P., D.E. Hemmes and R. Nolan, 1977. The Physiography and Marine Fauna of Inshore and Intertidal Areas in the Puukohola Heiau National Historic Site, National Park Service Technical Report #13, January 1977. University of Hawaii, Honolulu, Hawaii

Day, Walter C., 1972. Project Tugboat Explosive Excavation of a Harbor in Coral, EERL Technical Report E-72-23, February 1972. U.S. Army Engineer Waterways Experiment Station, Explosive Excavation Research Office, Livermore, California.

INALAB, Inc., 1992. 305(b) Water Quality Report for the State of Hawaii, 1 April, 1992. Department of Health, Honolulu, Hawaii.

State of Hawaii, 1991. (Unpublished) Department of Health, Clean Water Branch. Department of Health Total Metals in Seawater (Received April-May 1991), data for Station #70, Kawaihae Harbor (West Hawaii).

State of Hawaii, undated. Hawaii Air Quality Data, January 1988-December 1990. Department of Health, Clean Air Branch, Honolulu, Hawaii.

U.S. Army, 1971. General Design Memorandum for Kawaihae Harbor for Light-draft Vessels, Hawaii, Hawaii, August 1971. U.S. Army Engineer Division, Pacific Ocean, Honolulu, Hawaii.

U.S. Army , 1978. Informational Supplement to the Final Environmental Statement, Kawaihae Harbor for Light-draft Vessels, Hawaii, Hawaii, June 1978. U.S. Army Engineer District, Honolulu, Hawaii.

U.S. Fish and Wildlife Service, 1993. Final 2(b) Report on the Kawaihae Harbor for Light-draft Vessels, Kawaihae, Hawaii, Hawaii, October 19 1993. Fish and Wildlife Service, Pacific Islands Office, Honolulu, Hawaii.

APPENDIX E

SITE PHOTOS

East and West Breakwaters

Revetment and West Breakwater from the East Breakwater

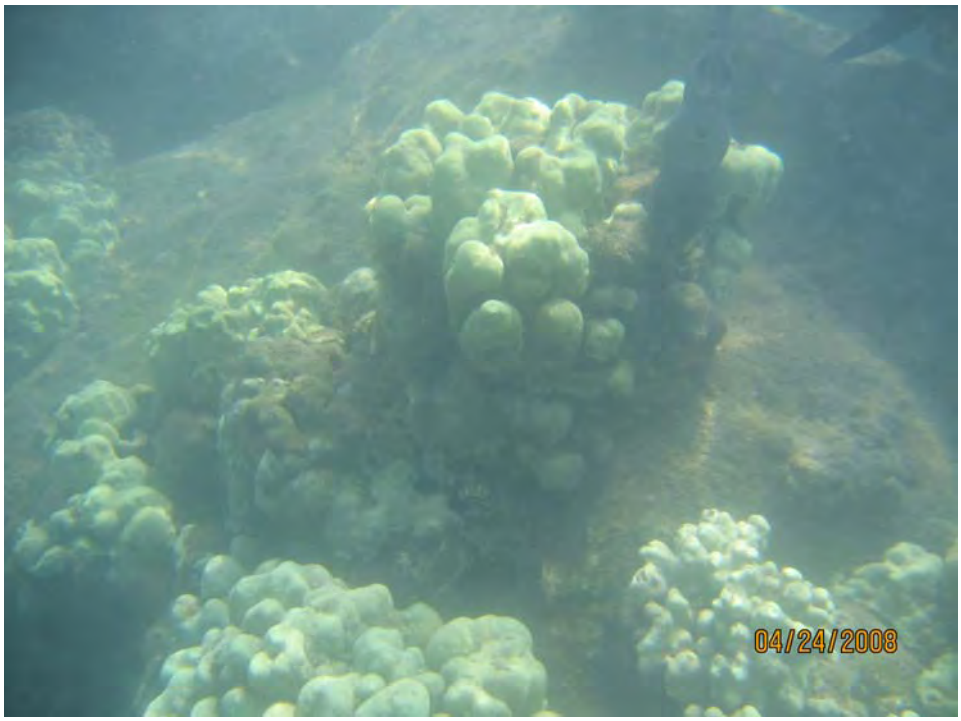
Revetment and East Breakwater from the Vicinity of the Proposed Boat Launch Ramp

Existing Unpaved Road and West Breakwater

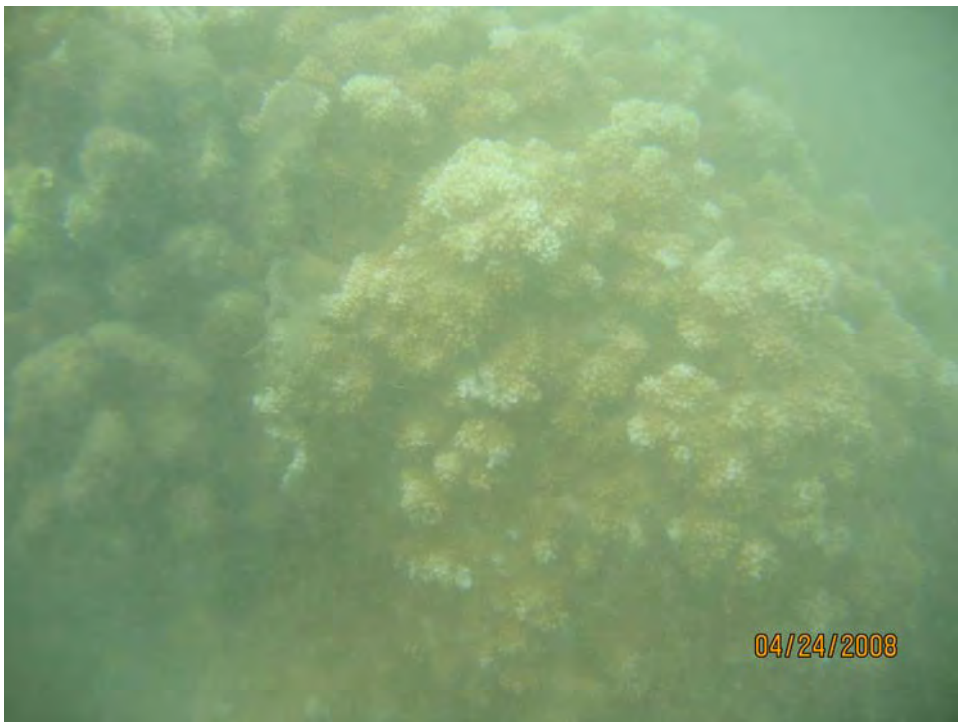
YMCA Facilities (CRM Lookout to remain)

YMCA Facilities (to be relocated by others prior to construction)

YMCA Facilities (to be relocated by others prior to construction)



Live Coral



Live Coral

APPENDIX F

CZM ASSESSMENT

Hawaii CZM Program - Federal Consistency Assessment

RECREATIONAL RESOURCES		
1.	Will the proposed action involve or be near a dedicated public right-of-way?	N
2.	Does the project site abut the shoreline?	Y
3.	Is the project site near a State or County park?	Y
4.	Is the project site near a perennial stream?	N
5.	Will the proposed action occur in or affect a surf site?	Y
6.	Will the proposed action occur in or affect a popular fishing area?	Y
7.	Will the proposed action occur in or affect a recreational or boating area?	Y
8.	Is the project site near a sandy beach?	Y
9.	Are there swimming or other recreational uses in this area?	Y
HISTORIC RESOURCES		
1.	Is the project site within a historic/cultural district?	N
2.	Is the project site listed on or nominated to the Hawaii or National register of historic places?	N
3.	Does the project site include undeveloped land which has not been surveyed by an archeologist?	Y
4.	Has a site survey revealed any information on historic or archaeological resources?	N
5.	Is the project site within or near a Hawaiian fishpond or historic settlement area?	Y
SCENIC AND OPEN SPACE RESOURCES		
1.	Does the project site abut a scenic landmark?	N
2.	Does the proposed action involve the construction of a multi-story structure or structures?	N
3.	Is the project site adjacent to undeveloped parcels?	Y
4.	Does the proposed action involve the construction of structures visible between the nearest coastal roadway and the shoreline?	Y
5.	Will the proposed action involve construction in or on waters seaward of the shoreline? On or near a beach?	Y
COASTAL ECOSYSTEMS		
1.	Does the proposed action involve dredge or fill activities?	N
2.	Is the project site within the Shoreline Setback Area (20 to 40 feet inland of the shoreline)?	Y
3.	Will the proposed action require some form of effluent discharge into a body of water?	N
4.	Will the proposed action require earthwork beyond clearing and grubbing?	Y
5.	Will the proposed action include the construction of special waste treatment facilities, such as injection wells, discharge pipes or cesspools?	Y
6.	Is an intermittent or perennial stream located on or near the project site?	N
7.	Does the project site provide habitat for endangered species of plants, birds or mammals?	N
8.	Is any such habitat located nearby?	N
9.	Is there a wetland on the project site?	N
10.	Is the project site situated in or abutting a Natural Area Reserve?	N
11.	Is the project site situated in or abutting a Marine Life Conservation District?	N
12.	Is the project site situated in or abutting an estuary?	N

Hawaii CZM Program - Federal Consistency Assessment

ECONOMIC USES		
1.	Does the project involve a harbor or port?	Y
2.	Is the project site within a designated tourist destination area?	N
3.	Does the project site include agricultural lands or lands designated for such use?	N
4.	Does the proposed activity relate to commercial fishing or seafood production?	N
5.	Does the proposed activity relate to energy production?	N
6.	Does the proposed activity relate to seabed mining?	N
COASTAL HAZARDS		
1.	Is the project site on or abutting a sandy beach?	N
2.	Is the project site within a potential tsunami inundation area as depicted on the National Flood Insurance Program flood hazard map?	Y
3.	Is the project site within a potential flood inundation area according to a flood hazard map?	Y
4.	Is the project site within a potential subsidence hazard area according to a subsidence hazard map?	N
5.	Has the project site or nearby shoreline areas experienced shoreline erosion?	N
MANAGING DEVELOPMENT		
1.	Will the proposed activity require more than two (2) permits or approval? *	Y
2.	Does the proposed activity conform with the State and County land use designations for the site?	Y
3.	Has or will the public be notified of the proposed activity?	Y
4.	Has a draft or final environmental impact statement or an environmental assessment been prepared?	N
PUBLIC PARTICIPATION		
	The public will be informed about this project via written requests for consultation and this EA.	Y
BEACH PROTECTION		
	This project is not located within or near any beach areas.	Y
MARINE RESOURCES		
	This project is not located near the ocean and will not impact the ocean resources management plan.	Y

* A list of the permits needed for construction are listed in Section 7 of this EA. The permits will be obtained during the design & construction phase of this project.

Appendix G
2012 Cultural Impact Assessment (CIA) for the Kawaihae Commercial Harbor Environmental Assessment

CULTURAL IMPACT ASSESSMENT (CIA)
FOR THE
KAWAIHAE COMMERCIAL HARBOR ENVIRONMENTTAL ASSESSMENT
KAWAIHAE HARBOR, DISTRICT OF SOUTH KOHALA
HAWAI'I ISLAND, HAWAI'I
[TMK (3) 6–1-003]

CULTURAL IMPACT ASSESSMENT (CIA)
FOR THE
KAWAIHAE COMMERCIAL HARBOR
ENVIRONMENTAL ASSESSMENT
KAWAIHAE HARBOR, DISTRICT OF SOUTH KOHALA
HAWAI'I ISLAND, HAWAI'I
[TMK (3) 6– 1-003]

Prepared by:
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February 2012

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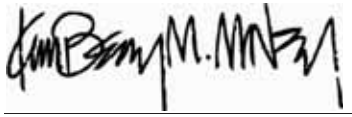
Statement of Pacific Legacy, Inc.'s Quality Process

It is the policy of Pacific Legacy, Inc. to have a consistent and systematic approach to the development and review of its reports and other project deliverables.

All projects and products of our service are subject to a quality process and in no case will the quality review be eliminated. The main purpose of this process is to assure:

- Clarity, completeness, coordination, and accuracy of documents.
- That the project, study or investigation meets the Client's objectives.
- That the requirements of our Agreement with the Client have been met, and the Client has received the value of the fee to be paid.

The Preparation of This Report Was The Responsibility of and Completed By:



signature — date: 11/09/11

The Quality Review of This Report Was The Responsibility of and Completed By:

signature — date: 11/09/11

ABSTRACT

Kawaihae has been a favored harbor since prehistoric times. It has a prominent place in the social, political, religious and economic history of Hawai'i and its culture.

During the construction of Kawaihae Harbor, in its current configuration, the bay was filled and the shoreline village was completely demolished. It would seem likely that any traditional practices conducted in the area would have been lost in that process. However, traditional practices persist and the area is used in many traditional ways.

The existence of an *ahu* on the southwestern end of the harbor testifies to the significance and importance of the area to the Hawaiian people.

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This report was prepared by Pacific Legacy, Inc.

Frontispiece: ***Pelekāne and Pu‘ukoholā (view to the southeast).***

1.0 INTRODUCTION

Archival research and interviews with knowledgeable individuals were undertaken in 2008 by Pacific Legacy. This information is used here for a Cultural Impact Assessment (CIA) to evaluate any consequences of the proposed implementation of features in the Master Plan for near-term improvements involving Pier 2 expansions, Department of Transportation, Harbors Division (DOT-H) office relocation, new comfort station, maintenance, dredging, internal traffic circulation, as well as grading and provisions for a new perimeter access road and fencing to the south small boat harbor.

According to the OEQC guidelines, types of cultural practices and beliefs may include those relating to subsistence, commercial, residential, agricultural, access-related, recreational, as well as religion and spirituality. Further, the CIA was designed to promote and protect cultural beliefs, practices, and resources of native Hawaiians, other ethnic groups, as well as other collective groups (OEQC 2011: 3-4). To determine the effects of the proposed development on cultural practices and beliefs, the following tasks are undertaken:

1. Identify and consult with individuals and organizations knowledgeable about cultural practices being conducted and/or may have taken place in the area;
2. Incorporate archival research about traditional practices that may have been conducted in the area;
3. Describe the cultural practices that took place within the potentially affected area, and;
4. Assess the impact of the proposed development on the cultural practices that may have taken place within the potentially affected area.

This CIA includes summary data compiled from archival and record searches of the following repositories:

1. University of Hawai‘i Library System
2. County of Hawai‘i Public Library
3. County of Hawai‘i Finance Department, Real Property Tax Office
4. National Park Service, Pu‘ukoholā National Historical Site
5. State Historic Preservation Division

Traditional oral historians provided accounts of personal experiences and information about traditional cultural practices and traditional uses of the project area.

2.0 PROJECT LOCATION AND ENVIRONMENT

2.1 Location and Project Description

Kawaihae Bay is located in the District of South Kohala on the west side of the island of Hawai‘i (Figures 1 and 2). It is situated at the southwest corner of the Kohala Mountain slope. Kohala Mountain is a volcanic dome reaching an elevation of 1,603 meters above sea level (a.s.l.).

The harbor boundaries and location of the proposed development project are provided in Figure 1. Figure 2 identifies the existing harbor and infrastructure as well as the proposed improvements and modifications.

2.2 Environmental Setting

Kawaihae Harbor and village exist at sea level to a few meters a.s.l. Kawaihae is characterized as hot and arid, with shallow soil cover over rocky land, and with intermittently flowing streams.

Kawaihae has an annual mean rainfall of 189mm or less and is considered the driest area on Hawai‘i Island (Clark 1986:32). The name Kawaihae literally means ‘water-of-wrath’ because “people are said to have fought for water from a pool in this arid area” (Pukui et al. 1974:5).

Kawaihae supports vegetation characterized by sporadic coconut trees and “a closed canopy (60%) of tall (ca. 3-5m) *kiawe* trees (*Prosopis pallida*) with an understory of mixed grasses, shrubs and herbs” (Clark 1986:38).

The wind pattern is dominated by low velocity sea and land breezes. “An on shore sea breeze is usually present during the day, but by nightfall the wind has shifted and there is a diurnal dominance of the trades blowing down over the plain and out to sea…Approximately 34% of the winds come out of the WNW, 20.5% out of the ESE, 9% from ENE, & 7.5% from the SE…” (Clark 1986:31).

Kawaihae is noted for extremely strong winds prevalent during the winter months, called *mumuku*. “These are harsh gusty winds out of the NE which at their fiercest are difficult for persons to stand against” (Clark 1986:31).

Within the past 80 years, Kawaihae Harbor has gone through dramatic physical changes related to the increased use and expansion of the harbor for commercial and recreational activities. Figures 3 and 4 exhibit modifications made to the coast line and harbor itself.

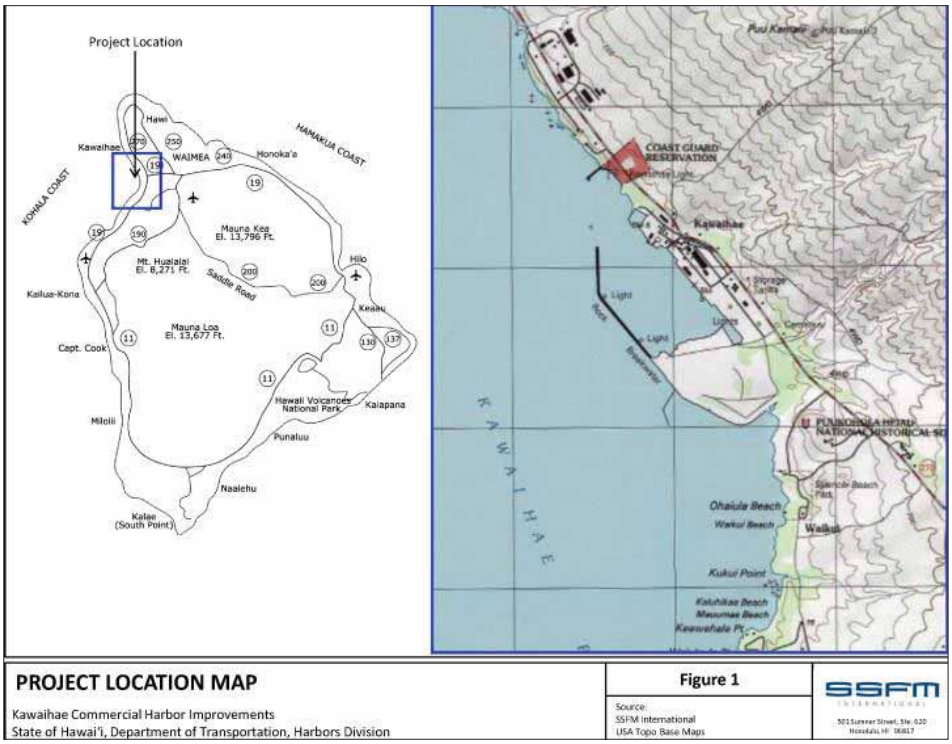


Figure 1. Project location (courtesy of SSFM International 2011).

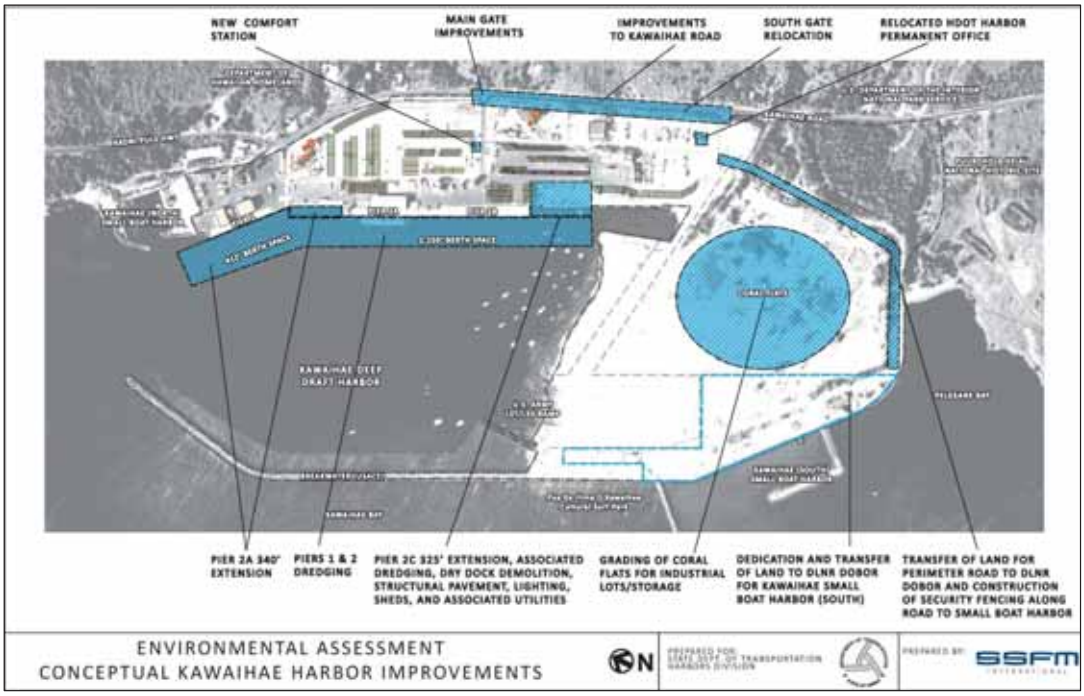


Figure 2. Aerial image of project area (courtesy of SSFM International 2011).

Figure 3. View of Kawaihae, ca. 1930 from Puʻukoholā Heiau (Kelly 1978:43).

Figure 4. View of Kawaihae in 1974 from Puʻukoholā Heiau (Kelly 1978:43).

2.3 Environmental Zones in Hawaiian Tradition

Traditionally in Hawaiʻi, environmental zones were perceived and determined by various natural features and resource criteria. The following describes the environmental zones found within two general categories: Marine and Terrestrial.

Marine Environmental Zones (Handy and Handy 1991:56-57):

1. Neritic zone: Near-shore waters, extending from the upper reaches of the tidal edge to about 200m in depth. Contains the most resources for human use. (Midden remains from Hawaiian sites show a preponderance of species from neritic habitats [Clark 1986:34]). Corresponding to the Hawaiian marine habitats of: 1. *Kai puʻe one*: (heaps [of] sand) the sandy edge of the sea, inshore dunes, or outer sand bar; 2. *Kai poʻi*: (sea-breaking) out to where the wave breaks; 3. *Kai kohola*: the lagoon, the shallow sea inside the reef; 4. *Kai pualena*: the yellowish sea, where the streams flow in and roil the waters; 5. *Kai ʻele*: the dark sea; and 6. *Kai uli*: the deep blue-sea.
2. Pelagic zone: Open ocean, waters lying beyond or exceeding the depth of 200m. Corresponding to *kai-pōpolohua-mea-a-Kāne* or the far reaches of the open sea (Clark 1986:34).

Terrestrial Environmental Zones (Handy and Handy 1991:54-56):

1. *Ko Kaha Kai*: Land by the sea, or coastal region providing marine resources (fish and other marine animals, seaweed and salt).
   "*Kaha* was a special term applied to areas facing the shore but not favorable for planting."
2. *Kula*: The plains or sloping lands (without trees) above the coastal region.
   Kula kai: Seaward plains.
   Kula uka: Inland or upland slopes (towards the mountains).
3. *Kahawai:* The place (having) water. The area beyond or intersecting the *kula* lands. This upland zone provided suitable agricultural sites and abundant naturally occurring resources which were used for religious, domestic, and economic purposes.
4. *Wao:* Wilderness.
   Wao kanaka: Region of man.
   Lower forest, providing hard wood (*koa*) for spears, utensils, and logs for canoes; *lau hala* (pandanus leaves) for thatch and mats; *māmaki* for bark cloth (*tapa*); *kukui* (candlenut) for oil; wild yams, roots, and sandlewood.
   Wao akua: Region of deities.
   "…remote, awesome, seldom penetrated, source of supernatural influences, both evil and beneficent."
   Wao maʻukele: Rain forest.
   "Here grew giant trees and tree ferns (*ʻamaʻu*) under almost perpetual cloud and rain."

The immediate project affected environmental zones are: Neritic, Pelagic, *Ko Kaha Kai*, and *Kula Kai*.

3.0 LAND DIVISIONS AND MANAGEMENT

3.1 Traditional Land Division and Management

Traditionally, the islands were divided into land units called *moku*, which later came to be referred as districts (Handy and Handy 1991:46). The *moku* were socio-political units or separate chiefdoms, belonging to the *ali'i* or ruling class. The ruling chief over one or more *moku* was called the *ali'i nui*.

Legend has it that the division of the islands into *moku* was initiated on the island of Hawai'i by 'Umi-a-Liloa, first to unite the entire island through conquest in about AD 1600 (Kamakau 1961:19). The island of Hawai'i was divided into six *moku* — Kohala, Hāmākua, Hilo, Puna, Ka'u, and Kona. In the mid 19th century, Kohala, Kona, and Hilo were each divided in two, creating north and south divisions.

Each *moku* was made up of smaller divisions of land units for resource and political management, called *ahupua'a*. The *ahupua'a* was probably the most significant land division in Hawaiian society. There were as many as 600 *ahupua'a* on the island prior to the end of Kamehameha I's reign (Cordy 2000:31). The *ahupua'a* is ideally a "pie-shaped wedge" land unit which extends from the mountain to the seashore and including the ocean, incorporating several ecological resource zones. In reality, few resemble the ideal wedge-shape. However, the majority did run from sea to the upland slopes, dividing the islands into vertical sections.

The size and shape of the *ahupua'a* reflect "…a mix of historical factors keyed to handle special resources (fisheries, meat birds, *koa* trees, etc.), population, and political factors. Importantly, size does not necessarily reflect population size or power of a community. Rather in some cases it simply means that special resources were included with in the *ahupua'a*, with those resources controlled by the resident or absentee landlord—the ruler or a high chief. Or, in arid regions, larger size may have compensated for poorer or more scattered farming soils…" (Cordy 2000:33).

The *ahupua'a* was a political unit under the authority of a *konohiki,* resident chief of lesser rank or status. It was the equivalent of a community and had an independent identity. It was generally a self-contained social unit composed of *'ohana* (extended family groups) and economically self-supporting. The diversity of environments and products available within each *ahupua'a* allowed the *'ohana* to be fairly self-sufficient through a system of mutual cooperation, and resource management and distribution between the coastal and upland zones.

At the end of prehistory Kawaihae seems to have been one *ahupua'a*. In the 1800s, Kawaihae was divided into two pieces – Kawaihae 1, also known as Komohana, and Kawaihae 2, also known as Hikina (Cordy 2000: 346). Kawaihae *ahupua'a* extends from the shore below Waimea, at the joining of today's north and south Kohala, and runs inland up into the forests of Kohala Mountain adjacent to Waimea.

The Kawaihae Harbor and Kawaihae villages straddle the *ahupua'a* of Kawaihae 1 and Kawaihae 2.

Ahupua'a were further divided into parcels called *'ili ('ili 'āina),* narrow strips of land running lengthwise within the *ahupua'a*, which were allotted to the *maka'āinana* (commoner) and their *'ohana* (extended family units) for use and management. "…the right to continue to use and to cultivate an *'ili* stayed with the *'ohana* dwelling thereon, regardless of any transfer of title to the *ahupua'a* in which they were located (Handy and Handy 1991:49).

"As long as sufficient tribute was offered and *kapu* (sanctioned restrictions) were observed, the common people, who lived in a given *ahupua'a* had access to most of the resources from mountain slopes to the ocean. These access rights were almost uniformly tied to residency on a particular land, and earned as a result of taking responsibility for stewardship of the natural environment and supplying the needs of one's *ali'i*" (Maly 2000:7).

4.0 TRADITIONAL HISTORICAL ACCOUNTS

4.1 Legendary Accounts

Oral histories and legends provide insights of a people's traditions and beliefs, significant cultural events and places, subsistence land use, and relationships with the natural and supernatural environment.

The following legends are from areas of South Kohala:

Legend of Pupualenalena
Pupualenalena, a supernatural dog, lived in Puakō with a fisherman who allowed him to eat as much fish he wanted in exchange for *'awa* which he stole from Hakau, high chief of Hawai'i (around AD 1450) who lived in Waipi'o Valley. Hakau had Pupualenalena caught, and he and his master were sentenced to die. In exchange for their lives, Pupualenalena stole a shell trumpet owned by the spirits who lived above Waipi'o Valley for Hakau (Fornander 1917:558-560).

Legend of Kaulaapokii
This is a narrative of the adventures Mailelaulii and her four sisters traveling from Kona through Kohala. First they meet Puakō, a "...very handsome man whose form was perfect," who fell in love with Mailelaulii. The sisters did not approve of Puakō because he was only a salt maker. They were worried that he would ask them to help him with salt making and afraid that their skins would soon "...look like the windward bark of a noni tree."

They left Puakō and at Kokoiki they met Hikapoloa, the chief of Puuepa and Hukiaa, who took Mailelaulii for his wife. The sisters approved of his chiefly status and they stayed to live in his household.

Hikapoloa learned that Mailelaulii had five brothers in Holualoa, Kona, who possessed the very rare pearl shell fishhooks to catch all the *aku* they wanted. Hikapoloa visited the brothers who happily gave a pearl shell fishhook to Hikapoloa.

Out in his canoe, Hikapoloa took the fishhook and held it in his hand all day, expecting the fish to magically jump into the canoe. When the fish didn't, he believed that he was tricked, and vowed to kill his brother-in-laws.

During a period of drought in Kona, Mailelaulii's brothers travelled to Kohala to ask Hikapoloa to provide them with food. They landed their canoe at Kukuipahu. As each brother entered the house, Hikapoloa beheaded, cooked and ate them. When the Mailelaulii and her sisters found out what had happened, they trapped Hikapoloa in his house. They caused the *maile* and *'ie* vines to grow over and around the house. Hikapoloa died and the house was set on fire. The sisters collected the bones of their brothers, restored them to life, and all returned to Kona, vowing, "...never to be covered with the same *kapa* with any man or woman from Kohala" (Fornander 1917:568).

4.2 Proverbs and Sayings

The following *'ōlelo no'eau,* traditional Hawaiian proverbs and sayings, taken from Pukui (1983), captures the essence of the area or poetically allude to historical events associated with Kawaihae:

Proverb: *Kawaihae i ke kai hāwanawana.*
Translation: Kawaihae of the whispering sea.
Interpretation: Refers to Kawaihae, Hawai'i (178).

Proverb: *Ke kai hāwanawana o Kawaihae.*
Translation: The whispering sea of Kawaihae.
Interpretation: Refers to Kawaihae, Hawai'i (185).

Proverb: *Ka ua nāulu o Kawaihae.*
Translation: The cloudless rain of Kawaihae.
Interpretation: The rain of Kawaihae often surprises the visitors because it seems to come out of a cloudless sky. A native knows by observing the winds and other signs of nature just what to expect (172).

Proverb: *Na makani paio lua o Kawaihae.*
Translation: The two conflicting winds of Kawaihae.
Interpretation: Refers to the *mumuku* wind from the uplands and the *Nāulu* wind, which brings rain of Kawaihae (247).

Proverb: *Pua ka lehua.*
Translation: The lehua is in bloom.
Interpretation: Said of the people of Kawaihae when the *aku* fish appear in schools. It was considered unlucky to speak openly of going fishing (294).

Proverb: *Hele aku 'oe ma'ane'i, he wa'a kanaka; ho'imae 'oe ma'o he wa'a akua.*
Translation: When you go from here, the canoe will contain men; when you return, it will be a ghostly canoe.
Interpretation: Warning to Keouakuahu'ula by his *kahuna* not to go to meet Kamehameha at Kawaihae. He went anyway and was killed (81).

4.3 Traditional Accounts of Battles

The area is a significant site of legendary battles between opposing district chiefs of Hawai'i island, and Maui and the chiefs of leeward Hawai'i probably from the 1500s to 1700s (Schilt 1984:22).

Battle between Lonoikamakahiki of Hawai'i and Kamalalawalu of Maui
Kawaihae was a strategic seaport for Maui chiefs to land their canoes and embarked on battles against the chiefs of Kohala and Kona. One of these events is said to have occurred in the late 16th to early 17th century, when the Maui chief, Kamalalawalu, sent spies to Hawai'i. Landing at

Kawaihae, the spies surveyed the coastal villages trying to determine the size of the population. The coastal residents were in the uplands, and as a result the spies report indicated a much smaller population than was the actually the case. Kamalalawalu decided to invade the Hawai‘i based on this misinformation (Kamakau 1961:56-58).

Kamalalawalu fought the first battle at Puakō and was victorious, killing the Hawai‘i chief Kanaloa-kua‘ana, eldest son of chief Keawe-nui-a-‘Umi (Fornander 1996:122-124).

Kamalalawalu marched inland to Waimea against the advice of his counselors who warned, “Waimea is not a good battle site for strangers because the plain is long, and there is no water. Should defeat be met with the warring strangers, they will all be slaughtered...” (Kamakau 1961:58).

There the Maui chief met the combined forces of six Hawai‘i *moku* lead by Lonoikamakahiki. Kamalalawalu was killed at Puakō as the Maui forces were being driven back to the coast (Kamakau 1961:60).

Lonoikamakahiki and His Brothers
Fornander recounts the tale of the battles fought by Lonoikamakahiki against his three rebellious brothers to regain his power. These battles were fought at ‘Anaeho‘omalu, Wailea, Kaunooa (between Puakō and Kawaihae), at Pu‘u Pa and Pu‘ukoholā. Lonoikamakahiki was victorious in suppressing the rebellion (Fornander 1996:121).

Alapa‘i-nui-a-ka-uaua
Alapa‘i -nui-a-ka-uaua was living on Maui when Keawe, a ruler of Hawai‘i, died. Alapa‘i went to battle with Hawaii's remaining chiefs and took possession of Kohala and Kona.

Kekaulike, ruler of Maui, heard of Alapa‘i’s victory and wanted to take over. He began his fight against Alapa‘i in Kona, but was forced to flee by the forces of Alapa‘i. As Kekaulike retreated he abused the people of Kekaha, slaughtered the people of Kohala, and fled to Maui.

At the end of his reign, Alapa‘i was living at Kikiako‘i in Kawaihae. At the heiau of Mailekini, in Kawaihae, he appointed his son, Keawe‘ōpala, to be his successor (Kamakau 1961:77).

5.0 PRE-CONTACT BACKGROUND

It is estimated that Hawai‘i was first settled by Polynesian voyagers as early as AD 300 (Kirch 1985:296-308; Cordy 2000:109). It is believed that the more “ecologically favorable” windward side of the islands were settled first and only after windward areas were fully developed and populated, did migration in search for new resources establish permanent settlements on the drier leeward side of the islands.

The first permanent settlements on the leeward or west side of the island of Hawai‘i are estimated to have been established around AD 900. These settlements were around coastal bays where marine resources were abundant. In this arid environment, drinkable water would have been an important consideration for the early settlers. Evidence of these early settlements was found south of Kawaihae at ‘Anaeho‘omalu at the boundary of South Kohala and North Kona (Barrera 1971:71; Oaks 2003:12).

The principal subsistence activities of these early settlers would have been related to inshore fishing and exploitation of marine resources. There would have been very limited cultivation activity as the coastal zone was dry and rocky, and not suitable for agriculture. It is believed that some food plants (sweet potatoes, coconut and taro) and utilitarian plants (gourds, ‘*ilima*, Pandanus, etc.) may have been grown in the patches of sandy soil, and along seasonal and intermittent streams (Greene 1993:185; Clark 1986:247)

Interpretation of archaeological data suggests the earliest occupation of Kawaihae to have been at least by the early 1400s (Clark 1986: 176 and 189). “Fishing, along with shellfish, sea weed, echinoderm, and other resources collections were all undoubtedly good at Kawaihae. In addition, salt making was an important activity there” (Clark 1986:247). Kawaihae was also a favorite landing site for canoes and was the district’s chief seaport (Handy and Handy 1991:531).

It is believed that by AD 1200 developed an initial Chiefdom society, which eventually evolved into the classic Hawaiian four strata society: ruler, high chiefs, local chiefs, and commoner (Cordy et al 1991:575). Social and political inequality became institutionalized.

“By at least the sixteenth century, the Hawaiian Islands had numerous families of high status individuals who ruled their separate domains by birthright, by genealogical affinity to the major gods, and by the right of conquest. Everything on the land and in the sea in their domains belonged to these high chiefs. Since the high chiefs were the closest living relatives of the major gods, the right to conspicuous ownership was never challenged or denied them” (Apple and Kikuchi 1975:42). Social order was maintained through an elaborate *kapu* (restriction) system and strong belief in the supernatural concept of *mana*.

The *ahupua‘a* evolved into a political-based “feudal” land system (Cordy et al 1991:575) and was the “chief political subdivision… for the purpose of taxation” (Handy and Handy 1972:48). The *maka‘āinana* had the right to live on the land and to use its resources and cultivate it. In return, the farmers and fishermen regularly gave a portion of their harvest to the *ali‘i* in the form of

tribute or taxes. The tribute collection during the annual harvest festival or *makahiki* was one of the most important economic and religious events. The *ʻohana* presented the tribute as a symbolic offering to Lono, the god of agriculture, but the goods were distributed to support the chief and priest classes.

"Rights to…fishing areas, considered very valuable economic assets, were strictly controlled within an *ahupuaʻa*. Inshore fishing rights were explicitly stated. Normally, only members of an *ʻohana* had rights to exploit specific water areas of the *ʻohana* lands" (Greene 1993:45). Also, knowledge of location of good fishing places off shore was considered a family or community possession. Marine resources within an *ahupuaʻa* were *kapu*, off limits, to residents of other *ahupuaʻa* without permission (Cordy 2000:39).

The Hawaiians had a tradition of conservation management practices of marine resources. *Kapu*, or closed, seasons of exploitation of certain fish were often enforced (Handy 1991:110-111). Especially, during their spawning period. Other *kapu* involved prohibiting fishing at certain places along the shore when deep sea fishing was open; alternating fishing times at inshore fishing places; and making certain that seaweed remained off limits at certain times of the year to preserve it as fish food and thus ensure good shore fishing. The ancient Hawaiians were not only skilled and knowledgeable fisherman, but they also respected the customs and traditions associated with the activity..." (Greene 1993:27-28).

The early leeward settlers were dependent on coastal exploitation subsistence, but were basically farmers coming from an intensive agricultural subsistence tradition of the windward settlements. The uplands on the leeward side which was suitable for agriculture were cultivated providing an expanded subsistence resource base. The addition of agriculture provides a more efficient means of subsistence than total reliance on fishing. On the leeward side, a *makai-mauka* (coastal-upland) subsistence complex was practiced.

Handy and Handy state that in Kawaihae "…much dry taro was grown beyond in the lower forest zone, which formerly extended from the Kohala Mountains much farther to seaward over what is now open pasture land. Wet taro was grown also in small pockets of land wherever streams, even, intermittent ones, flowed down from the mountains in the wet seasons" (1991:531).

Kawaihae Uka exists at 1158 meters a.s.l. and within Kawaihae 1, at the boundary with Kawaihae 2. When Kawaihae constituted a single land unit, Kawaihae Uka fell approximately in the center. It was this *mauka* area that was most strongly linked with the coastal settlement at Kawaihae (Langlas 1994:15). Archaeological work in upland Kawaihae has identified extensive agricultural fields, irrigation canals, and evidence of permanent settlements — "suggesting that many food items may also have come down to the shore from this upland area" (Cordy 2000:414).

It is believed that development of the Kohala Field System, an intensive upland agricultural system, occurred between ca. AD 1400 and 1650, exploiting the lands at elevations where rainfall and soil levels were sufficient for productive cultivation. The establishment of the royal compound at Pelekāne probably increased the demand for food when the *aliʻi* were in residence and may have provided an impetus for increased food production (Greene 1993:301).

The inland area in the vicinity of Waimea, also shows evidence of agricultural as well as habitational utilization, while the coastal area near Kawaihae seems to have been the locus primarily of residential features that were probably associated with the upland agricultural field systems (Barrera 1974:64).

A network of trails knitted the social and economic system of ancient Hawaiian society. The permanent settlements found along the coast or *Ko Kaha Kai* zone, and in the higher elevation zones of *Kula* and *Wao* zones of an *ahupuaʻa* were connected by *mauka-makai* trails. These trails were the lifelines of the *ahupuaʻa*, transporting people and goods between the coastal and upland areas (Ching 1970). Lateral trails allowed for trading with neighboring *ahupuaʻa*.

A *mauka-makai* distribution relationship similar to that which existed within the *ahupuaʻa* also seemed to have existed between the *ahupuaʻa* of Kawaihae and Waimea. Waimea is a *mauka* land-locked *ahupuaʻa*, and dependent on the Kawaihae coast for its source of marine resources and salt. *Mauka-makai* trails connected Waimea and Kawaihae (Cordy 2000:312). Evidence of marine fauna was excavated at Waimea sites (Clark 1986:597). The dry and arid coastal settlement of Kawaihae would have been to some extent dependent on Waimea for agricultural products.

Aquaculture in the form of fishponds practiced by the ancient Hawaiians may have been built as early as the fourteenth century (Greene 1993:29). Fishpond development coincided with the development of intensive agricultural systems (Cordy et al 1991: 576).

The accessibility to the ponds (*loko*) and their products was strictly for the *aliʻi*. The *loko* were likened to "their terrestrial equivalents, the royal gardens (*kōʻele*)," products of which were taboo to the commoners (Apple and Kikuchi 1975:2). They yielded the common people no direct benefit. Indirectly, however, royal fishponds insured less demand on the *makaʻāinana* food resources (Greene 1993:29).

Ethnohistorical documents and archeological data presented indicate the development of a substantial settlement in Kawaihae in the prehistoric period (Clark 1986:247). The importance of Kawaihae to early Hawaiians is evidenced by the ancient Mailekini *heiau* (dating back to 1580) and the existence of an earlier Puʻukoholā *heiau* or *ahu* (built during the reign of Lonoikamakahiki around 1640-1660) on which the present Puʻukoholā *heiau* sits. Royal use of Kawaihae goes back at least to AD 1640-1660 (Cordy 2000:347).

6.0 HISTORICAL BACKGROUND

The earliest written account of Kawaihae Bay was left by Captain James King, member of Captain James Cook's expedition in 1779:

> Although the NEern part of the bay which…is call'd Toe-yah-ya (Kawaihae) looks green and pleasant, yet as it is neither wooded or hardly any signs of culture, and a few houses, it has certainly some defect, and does not answer the purposes of what the natives cultivate (Greene 1993:193).

Another early visitor was Captain George Vancouver of the *Discovery*, who left a detailed description of Kawaihae Bay in 1793:

> Situated in a small sandy bay, where over a space of twenty yards of rugged rocks and stones, a fine stream empties itself, whose water is easily to be procured by landing the casks on the sandy beach, and having the water brought in smaller vessels to fill them; a service the natives will readily perform for a trivial reward (Greene 1993:193).

Vancouver further wrote of Kawaihae and the village:

> Toeaigh (Kawaihae) is situated in a grove of cocoa-nut trees, just behind a sandy beach. A reef of coral rocks, extending thence about three quarters of a mile into the sea, rendered it inaccessible to our boats in a direct line, but we landed very commodiously in a narrow channel, between the reef and shore, near the morai (Pu'ukoholā), to the S.E. of the beach…(Greene 1993:193).

South Kohala settlements during the early historic period, during the time of Kamehameha, continued to consist of coastal settlements with an economy of marine resource exploitation and limited cultivation. Two fishponds and salt pans were documented to have existed to supplement subsistence and trade (Greene 1993:196). Sweet potato and taro gardens were found scattered in patches of sandy soil and the seasonal intermittent streams between Kawaihae and Pauoa Bay. The coastal settlements were dependent on the *mauka* fields along the foothills of the Kohala Mountain for most of their agricultural supplies.

Kawaihae was one of the largest coastal settlements in leeward Hawai'i during the Early Historic Phases (Clark 1986:496). Kawaihae was the largest settlement in coastal Kohala because it had the best anchorage in Kohala. It was an important stopover for foreign ships needing supplies and repairs. Importantly, visiting ships stopped to call on the *ali'i nui* of the district, Kamehameha, who controlled all trade and was often in residence in Kawaihae. While at Kawaihae, Kamehameha lived at the royal residence at Pelekāne below Mailekini and Pu'ukoholā *heiau*.

When Kamehameha lived there, especially during the years he was constructing his *heiau* at Pu'ukoholā, European and American traders documented encountering the major high chiefs of the area—each arriving offshore in large double-hulled canoes. One canoe carried 40-50 men (Cordy 2000:348).

Kawaihae occupies an important place in the history of Hawai'i. This is where in 1791, Kamehameha secured his position as *ali'i nui* of the island of Hawai'i. Kamehameha had earlier sought the consul of Ka-pou-kahi, a *kahuna* soothsayer from Kaua'i who instructed Kamehameha to build a *heiau* at Pu'ukoholā to the war god Kuka'ilimoku if he expected to realize his ambition to unify the island (Kamakau 1961:154-155).

Fornander documents a conversation with "a centenarian Hawaiian at Kawaihae Uka who had assisted in carrying stones towards building this *heiau*. His description of the thousands of people encamped on the neighboring hillsides, and taking their turns at the work, of their organization and feeding, their time of work and relaxation, the number of chiefs that attended, and who, as the old man said, caused the ground to tremble beneath their feet; and the number of human victims that were required and duly offered for this or that portion of the building..." (Fornander 1996:328).

After completion of the *heiau* in 1791, Kamehameha invited his cousin Keōua-Kuahuula, *ali'i nui* of Ka'ū, the last contender in his effort to unify the six *moku* of Hawai'i under his rule to Kawaihae. As Keōua was descending his canoe upon his arrival at Pelekāne, he was killed by Kamehameha's supporters and offered by Kamehameha to Kuka'ilimoku at the *heiau*. This established Kamehameha's rule over the island of Hawai'i and ended the inter-district battling on the island (Kuykendall 1947: 33-38).

Of further significance in the history of Hawai'i, this is where Kamehameha remained while he planned his campaign to consolidate all the Hawaiian islands under his rule. Five years later, he launched his invasion of Maui, Moloka'i and O'ahu. In 1805, Kaumuali'i, *ali'i nui* of Kaua'i, recognized Kamehameha as his chief, uniting all of the islands under Kamehameha's rule.

From the beginning of Kamehameha's rise to power, two Englishmen, John Young and Isaac Davis, were his close personal advisors in Kawaihae regarding warfare, foreign relations, and business matters. These two became separated from their ships in 1790 and taken into the custody of Kamehameha, who was eager to have them help him in the use of the Western armaments in his possession and to train his warriors in the use of this new technology (Kamakau 1961:161-162).

"Kawaihae was not only the place where Kamehameha I became the *ali'i nui* of Hawai'i Island, but also the place where Kamehameha II returned after the death of his father to seek consolidation of his forces and consecration of his leadership role" (Kelly 1974:18).

Kawaihae was the residence of *ali'i* from pre-Contact to early historic times. Kawaihae was not only the spiritual site and safe seaport of the *ali'i*, but it offered recreation. "Kawaihae is an ancient surfing area" (Kelly 1974:5). The waves at Kapua'ilima in Kawaihae was known for surfing ('Ī'ī 1959:135). 'Ī'ī writes that Liholiho and Gideon Laanui "...were often seen together gliding on the surf outside of Haleumiumiole at Kawaihae and at Kapuni, outside of Kiikiiakoi" (1959:137).

The growth of Kawaihae as a commercial port was a direct consequence of the productive uplands of Kawaihae Uka and Waimea. Initially, ships stopped in Kawaihae to restock their stores with food and water. On March 1, 1794, Kamehameha presented Vancouver with "near

an hundred hogs of the largest size, and as great a quantity of vegetables as both vessels could well dispose of; with offers of a further supply if these were insufficient" (Vancouver 1801:108 from Kelly 1974:29).

First, food was made available for the traders, then sandalwood, salted beef, and hides (Kelly 1974:36). Other products exported through Kawaihae were fowl, beans, wool, Irish potatoes, and *pulu* (the fiber from the tree fern used to stuff pillows and mattresses).

Vancouver introduced the first cattle and sheep through the port at Kawaihae. By the early 1800s Kamehameha had ordered controlled bull hunting to thin the herds. Since Hawaiians had no tradition of eating beef, it and its by-products (hide and tallow), were used to initially supply the demand by the whaling ships in the early to mid 1800s and later with trading ships supplying the demands created by the California Gold Rush.

The sandalwood trade reached its peak in the 1820s. The Kohala Mountain forests which once reached almost to the Kawaihae shore in 1815 were denuded to supply the vessels trading in China. The intensive logging of sandalwood coupled with herds of cattle roaming the slopes from Kawaihae to Waimea is responsible for the drastic change in the environment and climate of the area.

The first American missionaries to the islands arrived in Kawaihae on April 1, 1820, on the *Thaddeus*. They were met by two of Kamehameha I's widows, Kalakua and Nāmāhana, and the presiding chief of the area, Kālaimoku and his wives. The first mission station in the Hawaiian Islands was established in Kawaihae by 1821.

Ships heading into Kawaihae Bay in the early historic period used two visible graves as landmarks to navigate. One was the grave of George Hueu Davis, son of Isaac Davis. The other was the grave George W. Macy, a sea captain who was in business with Louzada, a Waimea merchant. Macy's grave was noted as a "conspicuous white obelisk" on Jackson's map of 1883 of Kawaihae (Figure 5).

"As ranching at Waimea expanded, and large ships were brought into interisland service, Kawaihae became one of West Hawai'i's largest ports of call….Cattle were shipped alive to Honolulu's slaughterhouses. They were driven into the water, floated to the waiting ship tied by their horns to a small boat and lifted in a belly sling on to the deck of the ship" (Kelly 1974:37).

> The village consisted only of straggling houses, of two classes; those appropriated to the residence of the inhabitants were small, mean, miserable huts; but the others, allotted to the purposes of shading, building, and repairing their canoes, were excellent in their kind…In about the middle of the village is a reservoir of salt water, nearly in the centre of a large inclosure, made by walls of mud and stones. Between these walls and the reservoir the whole space is occupied by shallow earten pans, of no regular size or shape, nor placed in any order or degree of elevation. The reservoir…constantly affords a sufficient quantity of excessively salt water, for supplying the numerous (salt) pans…" (Kelly 1974:37)

Louis de Freycinet, in command of a French expedition (1817-20) noted the following about Kawaihae:

> Less spread out and more irregular than Kayakakoua (Kealakekua), Kahaihai (Kawaihae) is surrounded by even sadder, even drier grounds, if that is possible. Here, in fact, not an atom of greenery appeared before our eyes. One could have said that it had been ravaged by fire. On an elevation near the southern section of the village, a morai (Mailekini) surrounded by a rock wall had the appearance of a European fort. Mr. Young's house, built in European style, could be seen farther off on the shore to the north (Kelly 1974:41).

Lyons, who came in 1832 as a missionary, wrote of his first impressions of the Kawaihae in the Mission Station Rept. 1832:

> Kawaihae is about as desolate a place as I have ever seen. Nothing but barrenness, with here and there a native hut (Kelly, 1974:29).

William Ellis toured the island in 1823 as a member of the American Board of Commissioners for Foreign Missions to seek out suitable sites for missions and schools. Arriving from North Kohala, the following is his description of what he saw at Kawaihae:

> Before daylight on the 22nd (July 1823) we were roused by vast multitudes of people passing through the district from Waimea with sandalwood, which had been cut in the adjacent mountains for Kawaimoku (Kalaimoku or Kalanimoku), by the people of Waimea and which the people of Kohala, as far as the north point, had been ordered to bring down to his store house on the beach, for the purpose of its being shipped to Oahu.
>
> There were between two and three thousand men, carrying each from one to six pieces of sandal wood, according to their size and weight. It was generally tied on their backs by bands made of *ti* leaves, passed over the shoulders and under the arms, and fastened across their breast. When they had deposited the wood at the storehouse, they departed to their respective homes (Ellis 1963:286-287).

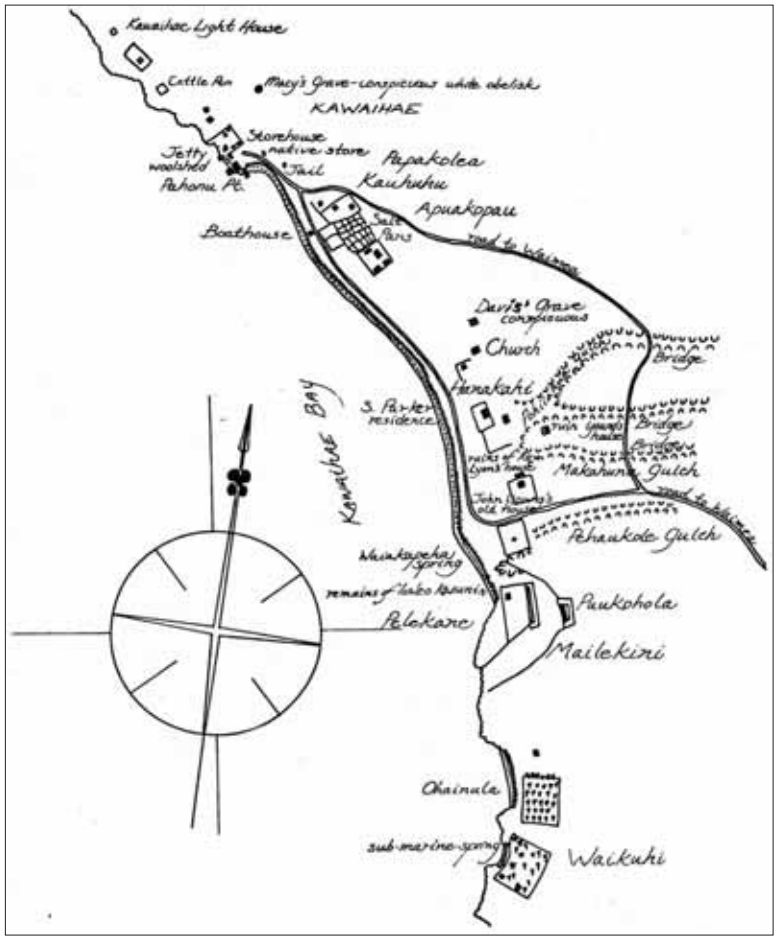


Figure 5. Map of Kawaihae Bay, Hawai'i, By G. Jackson, July 1883 (Kelly 1974:13).

Ellis mentions a warm springs area located "...a short distance to the southward of the large Heiaus" where he enjoyed a "...most refreshing bathe." The springs were a little below high-water mark and had stones piled around them to enclose the water that bubbled up through the sand (Ellis 1963:287).

Ellis also wrote about the making of salt at Kawaihae:

> The natives of this district manufacture large quantities of salt, by evaporating the sea water. We saw a number of their pans, in the disposition of which they display great ingenuity. They have generally one large pond near the sea, into which the water flows by a channel cut through the rocks, or is carried thither by the natives in large calabashes. After remaining there some time, it is conducted into a number of smaller pans about six or eight inches in depth, which are made with great care, and frequently lined with large evergreen leaves, in order to prevent absorption. Along the narrow banks or partitions between the different pans, we saw a number of large evergreen leaves placed. They were tied up at each end, so as to resemble a shallow dish, and filled with sea water, in which the crystals of salt were abundant (Ellis 1963:28)

Charles Wilkes was a member of the United States Exploring Expedition, made the following observation about the Kawaihae area in 1845:

> The tradewind is exceedingly strong, bringing with it a mist toward sunset. It rushes furiously down between the mountains which bound the valley of Waimea and become very dangerous to shipping in the bay. It is called by the natives *mumuku* and is foretold by them from an illuminated streak that is seen far inland. This is believed to be caused a reflection of the twilight on the mist that always accompanies the *mumuku*... (Kelly 1974:37)

Isabella Bird Bishop writes of her impression of Kawaihae in 1870s:

> A Foreign store, a number of native houses, a great heiau, or heathen temple on a height, a fringe of cocoa-nut palms, and a background of blazing hills, flaring with varieties of red, hardly toned down by any attempt at vegetation, a crystalline atmosphere palpitating with heat, deep, rippleless, clear water, with coral groves below, and a view of the three great Hawaiian mountains, are the salient features of this outlet of Hawaiian commerce (Greene 1993:205).

Casper Whitney, describes the changes in time at Kawaihae in 1899:

> Once many years ago, Kawaihae was a thriving port, where the whalers came for the potatoes raised on the hills directly back of the settlement,
>
> and people lived here and prospered. Now the settlement owes its life to the weekly arrival of steamer from Honolulu (Greene 1993:205).

"Today, Kawaihae Bay and its coastline differ drastically from the views described in historical journals. In….the late eighteenth and early nineteenth centuries, the original hardwood forests stretched almost to the beach. Freshwater streams flowing down gulches from Kohala

Mountain provided the water supply of Kawaihae and potable water for ships. Ultimately logging activities related to the sandalwood trade and the repair of visiting ships, clearing for agricultural terracing, and uncontrolled cattle grazing and tree removal caused the forest to recede. And streams dried up, erosion intensified, creating a semi-barren desert environment" (Greene 1993:209).

6.1 Population of Kawaihae — Reflecting Changes in Time

"The simplest characterization of the population history of Waimea-Kawaihae is to say that the prehistoric period was marked by fluctuating increase, while the historic period saw fluctuating decline" (Clark 1986:495).

The population of the Kawaihae area declined steadily in the 1800s. Population fluctuations were experienced due to periodic public work projects, such as during the construction of Pu'ukoholā *heiau*, or to carry sandalwood from the upland forests to Kawaihae Bay. When chiefs were in residence in Kawaihae, the population increased with the addition of their entourages and the various service providers and the curious. People would congregate at the bay to watch the arrival of ships and the foreigners and engage them in trade. Reduced fertility and increased mortality affected the population figures in a more permanent way. For instance, the smallpox epidemic in 1853 took half the population (Clark and Kirch 1983:51-52).

Depopulation was a major consequence of these events and changes. Cordy (2000) compares estimated AD 1778 census with 1831-1832 census information from Schmitt (1977:120): Hawai'i island 1778 = 106,028 and 1831 = 45,592; Kohala 1778 = 23,503 and 1831-1832 = 10,106 (Cordy 2000:49).

Lyons' observation of his congregation at the time of the 1853 smallpox epidemic, taken from the Mission Station Rept. 1853: "In April one hundred communicants were present, many of them in the bloom of life--now (November?) there were but twenty-four, and not a youth among them..." (Kelly 1974:53).

6.2 Mahele of 1848

The 1848 Mahele 'Āina is the historic land division of the kingdom initiated during the reign of Kamehameha III. The Mahele had a crucial impact on Hawaiian society and culture. It was "the most important event in the reformation of the land system in Hawai'i…the separation and identification of the relative rights of the king, the chiefs, and the *konohiki*, in the lands within the islands. This event led to the end of the feudal system in the kingdom" (Chinen 1958:15).

Prior to the Mahele, all lands were held in trust by the *ali'i*:

> By at least the sixteenth century, the Hawaiian Islands had numerous families of high status individuals who ruled their separate domains by birthright, by genealogical affinity to the major gods, and by the right of conquest. Everything on the land and in the sea in their domains belonged to these high chiefs. Since

> the high chiefs were the closest living relatives of the major gods, the right to conspicuous ownership was never challenged or denied them (Apple and Kikuchi 1975:42).

The Mahele divided the land into three categories: 1) Crown Lands, 2) Government Lands, and 3) *Konohiki* Lands (Chinen 1958:13). The *ahupua'a* of Kawaihae 1 or Kawaihae Komohana was kept by Kamehameha III as crown land. The *ahupua'a* of Kawaihae 2 or Kawaihae Hikina was given by Kamehameha III to John Young's son and his premier, Keoni Ana.

During the Mahele, all of John Young's children and Isaac Davis' children received awards of large amounts of land in various districts of Hawai'i in recognition of their fathers' service to Kamehameha I. Below is a list of the children who, along with Keoni Ana, were awarded *ahupua'a* in Kohala (Indices of Awards...1929:58-81 from Kelly 1974:46-47):

John Young's Children:

Kamaiku (w):	Waiaka (1)
James Y. Kanehoa (k):	'Ōuli
Kaoanaeha (w):	Opuoao
	Hoowaliohalawa
	Kealahiwa
	Kaupo
Gini Lahilahi (w):	Waiaka (2)
	Waika
Fanny Kekela (w):	Kiiokalani

Isaac Davis' Children:

George Davis Hueu (k):	Waikoloa
Kale (w):	Kapaa

Other awards issued along the coast of Kawaihae Village from the old wharf at the northern end of the beach to Pelekāne at the southern end are listed in Table 1 and indicated on Figure 6. The number of awards does not represent the total population of Kawaihae Bay in 1848. "They probably represent the local elite, those who could afford the survey and commutation, had proper authority for permanent occupancy, had reputable witness to sustain both the authority and continuous use, and who chose to apply" (Apple 1978:62).

Table 1. Land Commission Awards (LCA) for Kawaihae 1 and 2

Kawaihae 1 (Komohana) — *the old wharf to Makahuna*		
LCA No.	4094	Occupied before the time of Kamehameha I.
Awardee	Kepaimaka	
Royal Patent No.	5233	
LCA No.	4884	Authority was Kuakini; occupied in 1838; structures for storage and dwellings.
Awardee	Wm. French	
Royal Patent No.	4929	
LCA No.	3669	Houselot occupied in 1841.
Awardee	Makahi	
Royal Patent No.	5240	
LCA No.	4091:1,2	Authority was Kamehameha I; houselot and salt beds.
Awardee	Kaue	
Royal Patent No.	5217	
LCA No.	3826	Authority was Kamehameha I.
Awardee	Punihahiha	
Royal Patent No.	5264	
LCA No.	9971	Authority was Kuakini; occupied in 1844.
Awardee	W.P. Lele-io-hoku	
Royal Patent No.	6692	
LCA No.	3668:1,2	Authority was Ka‘oana‘eha; occupied in 1840; houselot and salt pans.
Awardee	David Manuia	
Royal Patent No.	5514	
LCA No.	4101	Authority was ‘Olohana (John Young) and Ka‘aoana‘eha; occupied in 1847.
Awardee	Kahananui	
Royal Patent No.	6385	
Kawaihae 2 (Hikina) — *Makahuna to Pelekane*		
LCA No.	4106	Authority was ‘Olohana and Ka‘aoana‘eha.
Awardee	Kaui	
Royal Patent No.	5098	
LCA No.	4522	Authority was Kamehameha I; occupied ca. 1793.
Awardee	Puna and Ka‘aoana‘eha	
Royal Patent No.	None	
LCA No.	4103	Authority was Ka‘aoana‘eha.
Awardee	Kahunaliiole	
Royal Patent No.	4929	

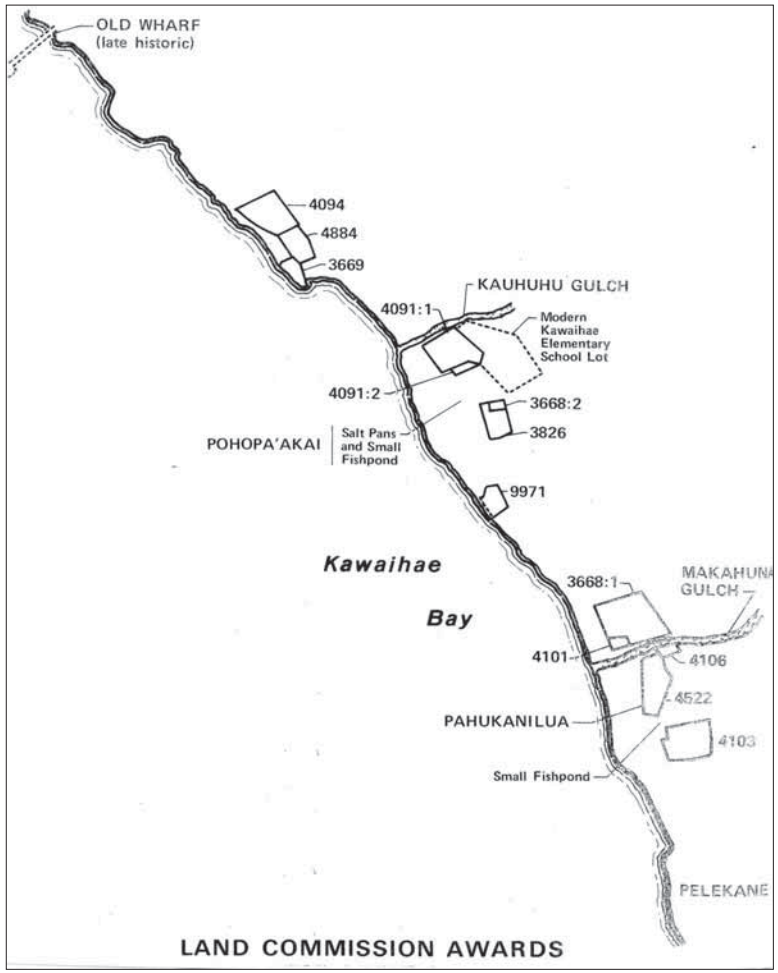


Figure 6. Kawaihae Bay, ca. 1850 (from Apple 1978:28).

7.0 ARCHAEOLOCIAL RECORD OF PROJECT AREA

Kawaihae Harbor "is primarily a coral stockpile formed from dredge tailings after the current harbor was created on the site of a coral reef" (Towill 2001: 4-12) and beach from the early 1950s to 1960s. Any historical or archaeological sites which may have existed within the boundary of the harbor during the period of construction would have been buried.

The southern boundary of the harbor is contiguous with the culturally and historically significant Puʻukoholā Heiau National Historic Site. Hale O Kapuni (known as the shark *heiau*) is submerged in the water south of the harbor in Pelekāne Bay.

The area of Kawaihae has been surveyed for various development projects. A comprehensive inventory and data of archaeological sites is available in these reports: Barrera (1974), Soehren (1980), and Clark (1983). Appendix A, provides the locations and an indication of the number of recorded archaeological sites in the vicinity of the harbor and village.

The archaeological features recorded for the area are many and varied. The list and descriptions will not be reiterated here, except to say that the prehistoric and historic sites have been grouped into 6 major categories: residential structures, community-oriented structures, burial monuments, agricultural features, military features and miscellaneous.

8.0 CONTACTS AND INTERVIEWS

8.1 METHODOLOGY

Interviews were conducted to obtain personal experiences and knowledge of the project area. Particularly, information pertaining to traditional cultural practices and the historical events associated with the area. The interviews were informal interviews conducted between 4 May and 14 June 2008. A list of *kūpuna* and knowledgeable consultants as possible interviewees was developed by contacting community leaders and members.

Seven interviews were conducted. A basic questionnaire (Appendix B) was used as a guide to solicit interviewees' biographical information, relationship, and knowledge of the area. A map of the project area was used in explaining the project to the interviewees. Copies of Personal Release of Interview forms are provided in Appendix C and summaries of the interviews are provided in Appendix D.

All of the consultants interviewed were personally associated with the area and were repeatedly recommended by various sources in the community. They are all active in the Hawaiian community and well respected for their leadership and knowledge of the project area and its history. The interviews were supplemented with personal and telephone conversations with stakeholders of the area for clarification and additional information.

Additional information was garnered from public information meetings regarding the Statewide Large-Capacity Inter-Island Ferry, which essentially shares the same interest area with the current project.

8.2 CONTACTS

Table 2 is a list of people contacted for interviewee recommendations and/or information regarding the project area.

Table 2. List of Contacts

NAME	AFFILIATION	REASON CONTACTED	COMMENTS
Elizabeth Becerra	YMCA Center Director, Kailua-Kona	Contacted for information on programs and use of harbor.	YMCA established an Aquatic Center at the southwestern end of the harbor. Programs offered include canoeing, surfing, marine ecosystem education, and water recreation.
Darlene Dupont	YMCA, Executive Assistant CEO for Hawaiʻi island	Contacted for information on programs and use of harbor.	YMCA Aquatic Center at the southwestern end of the harbor is an integral part of the programs offered by the Kona YMCA Center. Programs at the Aquatic Center also to be offered through the Waimea YMCA Center. Annual YMCA festival held at the Aquatic Center.

NAME	AFFILIATION	REASON CONTACTED	COMMENTS
Kale Gumapac	Kanaka Council	Kanaka Council is a grassroots Hawaiian community organization. Attended meeting to discuss their position on the issues.	Resents the fact that an impact assessment is being conducted after the decision had already been made to operate the Superferry. Strongly opposes the operation of a large-capacity ferry. The access and harvesting of resources by ferry uses will impact to the environment (from ocean to the mountain) and deplete the resources which belong to the people of the *moku* and island. The resources sustain a lifestyle on the island, and a change in the environment is a change in the lifestyle and their Hawaiian identity, and cannot be mitigated. Feels that an assessment of their culture should be conducted by a cultural practitioner and not by an outsider.
Melvin Kalahiki	Royal Court Assembly, Pu'ukoholā Heiau.		Discussed the role of the Royal Court Assembly and perpetuation of culture through activities at the *heiau*.
Daniel Kawaiaea	Superintendent of the Pu'ukoholā National Historic Site (NHS).	Contacted for references and interviewees.	Provided information of the National Historic Site. Discussed programs and activities, such as the reconstruction of the *heiau* walls, as opportunities for education and perpetuation of cultural practices.
Wendy Machado	State Historic Preservation Office	Contacted for information and references.	Discussed continuing inquiries from the community regarding burials in the area.
Ruby McDonald	Community Resource Coordinator, Office of Hawaiian Affairs.		Letter provided to inform OHA of CIA project and requested a list of recommended interviewees.
Harry Ruddle	Former County Council Member	Contacted for interviewees and information	Provided list of interviewees and background information of Kawaihae village.
Francis Ruddle		Contacted for information about the area.	Grew up in Puakō when the only way to get there was by boat from Kawaihae Bay. Currently uses the inner harbor for mooring. Provided information on boating and fishing activities associated with Kawaihae.
Bob Simms	Organizer of Pua Ka ʻIlima ʻO Kawaihae Cultural Surf Park	Contacted for information on use of harbor.	Discussed concept of the Park and programs, and information on the use of the park and surfing activities, such as the Pua Ka ʻIlima ʻO Kawaihae Cultural Surf Park Long Board Classic competition January or February. The intent is to encourage the use of the park for all types of cultural activities—hula, canoe building, etc.—while promoting tradition of surfing. The waves were the longest in the State. The *aliʻi* surfed there.
Elton Suganuma	Harbor Master, Kawaihae Harbor		Provided information of the harbor and its operation.

8.3 Interviewees

Table 3 provides a list of interviewees, their affiliation with the project area, and additional comments.

Table 3. Interviewees

NAME	AFFILIATION	COMMENTS
Daniel Kahikina Akaaka, Jr.	Cultural Practitioner and Director of Cultural Affairs at Mauna Lani Resort, Kalahuipuaʻa	Born in Honolulu to father Daniel Kahikina, Sr. and mother Mary Mildred Chong. Hawaiʻi Island has been home for past 30 years.
William Akau	Former Harbor Master of Kawaihae Harbor	Grew up in Kawaihae. His father was also a former Harbor Master of Kawaihae Harbor.
Annie Kahikilani "Lani" Akau		Grew up in Kawaihae. Father from Kawaihae Uka, South Kohala, William Akau. Mother from Makapala, North Kohala, Helen Kahoʻu.
Eddie "Lala" Laʻau		Born in Puakō to parents, Eddie Laʻau, Sr., and Rachel Obata. Grew up in Kawaihae. Father was a fisherman in Kawaihae.
Naomi Kaiamakini Laʻau		Born in Kalaoa, Kona, but raised at Kahua Ranch. When 2-3 years old moved to Kahua Ranch. Father was John Kaimakini; mother was Elizabeth Lincoln.
Martin Ikua Purdy, Sr.		Born on Kauaʻi, and raised on Maui at Ulupalakua Ranch. Worked as a cowboy since age 17. Came to Waimea at 31 to work as a *paniolo* for Parker Ranch (30+ years). Father was Ikua Purdy who was born in Waimea and also worked for Parker Ranch. Mother was Keala Margaret Napuupahee.
Manuel (Manny) Veincent	Coach of the Kawaihae Canoe Club	Born in Hilo, moved to Waimea 40 years ago. Coach of the Kawaihae Canoe Club for 36 years.
Ku Kahakalau *(telephone interview)*	Cultural Practitioner and Director of Kanu o ka ʻĀina New Century Public Charter School (KANU)	

9.0 TRADITIONAL USE AND CULTURAL PRACTICES TODAY

Traditional uses and cultural practices in Kawaihae Harbor and immediate area have been identified through archival research and ethnographic interviews. Following are major themes garnered from research and interviews. An aerial image highlighting the major cultural activity areas of Kawaihae Harbor provided in Figure 7. However, it should be noted that fishing, marine resource gathering, boating, diving, snorkeling, surfing, and other aquatic activities likely take place on nearly all accessible coastal areas to some degree.

9.1 Traditional Values and Orientation

There is still a strong connection to the land even if Native Hawaiians may not "legally" own the land. The concept of "*mālama ʻāina*" is more than a modern day environmentally correct saying. It is deep rooted in Hawaiian culture. "*ʻāina*" refers to that which "feeds". Traditionally, the welfare and survival of the *ʻohana* depended on the sustainable management of the natural resources of the *ahupuaʻa* in which they lived. The concept of landownership was non-existent, as the land was under the control of the reigning *aliʻi*. Prior to European contact, Hawaiians were stewards of the land. The land did not belong to any individual, but an individual and their *ʻohana* belonged to and had rightful use of the land. Not only did each *ʻohana* have to take care of the land assigned to them, but only that *ʻohana* could use that land. The land was not yours, but through your labor, the fruits of it were yours. So, there was and is a strong ownership of resources. Thus, you often hear people say, "Ask before you take", even of naturally occurring resources on public land but in the vicinity of where they live.

Protection and conservation of resources, particularly the subsistence resources, were practiced by ancient Hawaiians as a means to ensure a continued supply of resources. Traditionally, *kapu* (restricted) periods were declared on harvesting of certain types of fish or *limu* (seaweed) which was fish food to manage the fish population. Management practices were not only those externally imposed, but the day-to-day practice of "take only what you need and leave something for next time" conserved resources. Sharing, exchange and reciprocity of resources which characterized the economic distribution system of the *ahupuaʻa* are still practiced in daily social economic context at Kawaihae.

Kawaihae Harbor also plays into the *mauka-makai ahupuaʻa* concept, as the coastal region of Kawaihae Ahupuaʻa. Its orientation and relationship make it the "beach" or "*makai*" for the large population center of Waimea. Waimea residents frequent Kawaihae for recreational swimming, social gatherings and fishing. Approximately 90% of the fishermen who sell fish to the Kawaihae Fish Market are from Waimea. In addition, Kanu o ka ʻĀina New Century Public Charter School (KANU) maintains a "*makai*" campus in Kawaihae.

Additionally, the presence of a "living" *ahu* located on the southwestern end of the harbor that is currently being used for ceremonies and maintained by contemporary cultural practitioners, suggests that this area maintains its spiritual significance.

9.2 Kawaihae: The Seaport

Kawaihae has been a favored harbor since prehistory. Besides being the seaport of chiefs, it was in the past as it is today, an important fishing area and popular recreational venue. The inner harbor is still used by a variety of outrigger canoe and other recreational marine vessels for practice and competition.

Currently, the non-profit organization, Na Kalai Waʻa Moku ʻO Hawaiʻi, conducts educational programs based on traditional knowledge and cultural practices for the community with Hawaiian voyaging and traditional navigation (non-instrument) as its foundation. The central focus of the organization is the double-hulled canoe, Makaliʻi, which is stored in the far southwest corner of Coral Flats near the mouth of Pelekane Bay. The Makaliʻi has made numerous voyages throughout the Hawaiian Islands as well as the Marshall Islands, Micronesia, Guam and Saipan. This celebrated vessel also serves as the primary classroom for Na Kalai Waʻa Moku ʻO Hawaiʻi's educational and cultural programs. Na Kalai Waʻa Moku ʻO Hawaiʻi has had a temporary dry storage permit issued to them for the Makaliʻi by DLNR DOBOR since January, 2008. This temporary permit is intended to only be in place until a new storage facility is completed.

9.3 An Important Source for Traditional Subsistence

The ocean or marine environmental zones continue to be a significant subsistence resource. Fishing is still extensively practiced. Traditional fishing methods of using currents and landmarks are still being practiced. Further, the traditional knowledge of *koʻa* (fisheries) is used to locate fish and manage the establishment and development of *koʻa* for future harvests. The gathering of marine resources, such as *limu* (seaweed) as well as a wide variety of shellfish, is also an ongoing cultural practice. As evidenced in the archaeological record, these foods have been distributed and/or traded within the *ahupuaʻa* from the coast to the mountains since ancient times.

9.4 An Important Locale for Traditional and Contemporary Recreation

Traditional recreational sports have been occurring at Kawaihae from time immemorial. The shoreline or *ko kaha kai* zone still a "living" environment, used by an ancient, but "living" culture. The earliest occupational activities on the leeward side of Hawaiʻi Island, such as marine resource gathering and shoreline or reef fishing along the coastline, are still evident. The *aliʻi* also traditionally lived and worshiped at Pelekāne and Mailekini. Kawaihae Harbor continues to be a traditional get-together and recreational location for families of any status.

Kawaihae Harbor has continuously been an important locale for paddling the outrigger canoe, which is a canoe that is of traditional Hawaiian design. Koa is still used for many of these canoes, built using traditional skills from selection to completion. The construction of the canoe is used to educate the paddlers on canoe building and other aspects of Hawaiian culture. Paddling is a means to perpetuate the traditional sport of outrigger canoe racing and to promote the culture. The Kawaihae Canoe Club maintains 15 canoes and has a membership of

approximately 200 paddlers. Paddlers come from Kawaihae, Waimea, Honoka‘a, Waikoloa, and Kohala to the harbor to practice this tradition. Approximately half of the paddlers are of Hawaiian ancestry.

Surfing is also an important cultural activity that currently occurs at Kawaihae. We know from oral and written history, that the *ali‘i* surfed at Kawaihae. Pua Ka ‘Ilima ‘O Kawaihae Cultural Surf Park is located at the southwest edge of the outer break of Kawaihae Harbor, where the waves are purported to be the longest surfable waves in the state. The concept of this park is to promote cultural activities at the site, such as hula and canoe building, but primarily is designed to promote the traditional sport of surfing at a traditional surfing site. The Pua Ka ‘Ilima Long Board Classic competition is held every January or February. The park has a gratis monthly revocable permit with DLNR DOBOR to use the property.
Kanu o ka ‘Āina New Century Public Charter School (KANU) maintains a "*makai*" campus, Hale Kukui, on the coral flats. The vision of KANU is to expand the school into a comprehensive Native Hawaiian learning center or *kauhale* which can address the educational and cultural needs of all stakeholders "from the womb to the tomb". The school is culturally driven, which means that students learn in a culturally congruent way, how to continue Hawai‘i's native heritage, values and practices, including the native language. The Hale Kukui complex also houses the YMCA Aquatic Center. Here the YMCA of Waimea teaches traditional sports such as canoe paddling and surfing. Further, marine ecology and science instruction is conducted here by the Waimea YMCA as well as traditional crafts and hula. The YMCA has a gratis monthly revocable permit with DLNR DOBOR to use the property, while KANU currently does not have a formal agreement to use the property.

9.5 The Significance of Pu‘ukoholā

Pu‘ukoholā continues to be an integral part of traditional Hawai‘i's social, political and religious culture. John Lake, former *kahuna nui* of Pu‘ukoholā, referred to the *heiau* as "State temple for Hawaiians." The Royal Court Assembly associated with the *heiau* is composed of *ali‘i,* direct descendents of Kamehameha and meet regularly at the *heiau*. That there are more than the usual number of religious structures (Pu‘ukoholā which Kamehameha built, the previously existing *ahu* attributed to Lonoikamakahiki, Mailekini Heiau, and Hale O Kapuni Heiau) at one location testifies to the prominence and spiritual significance of the site. On-going repairs of damage due to the 15 October 2006 earthquake incorporate traditional methods and techniques of *heiau* wall construction. This activity is being used to educate young Hawaiians on *heiau,* culture and traditional technology.

9.6 The Ala Kaha Kai National Historic Trail

The Ala Kaha Kai National Historic Trail follows the footpaths of ancient fishermen to and from villages and local Hawaiian Kingdom roads. This trail runs parallel to the coast and would have passed through Kawaihae. A segment of the trail, located just southeast of the harbor at Pu‘ukoholā Heiau National Historic Site, has been made traversable to the public. Use, restoration, and maintenance of the trail is ongoing. The trail, being a remnant of ancient infrastructure that is still used to access cultural resource areas, plays a major role in preserving

cultural practices taking place along the coast. The system also contains a segment of the ancient Ala Loa Trail, which was a major land trail connecting around 600 communities during the 15th-18th centuries.

9.7 Graves and *Iwi Kūpuna*

The State Historical Preservation Office in Hilo indicates that there still are a significant number of people inquiring into ancestral graves in Kawaihae. Historical grave sites are still being attended to by relatives. No burials have been inadvertently discovered in the Kawaihae Harbor area.

Figure 7. Major Cultural Features of Kawaihae Harbor (adapted from Google Earth).

10.0 IMPACT ANALYSIS AND ASSESSMENT

The following discussion of potential impacts and analysis is provided based on the results and findings from archival research, interviews (Appendix D), and public meetings (Appendix E).

10.1 Near-term Improvement Components

According to the Hawai'i Island Commercial Harbors 2035 Master Plan Update (DOT-H 2011), a series of near-term improvements have been proposed for Kawaihae Harbor, which are to be addressed in the current Draft Environmental Assessment. Figure 2 provides a map with the proposed near-term improvement components.

10.1.1 Perimeter Road and Small Boat Harbor Land Dedication and Fencing
Land will be dedicated from HDOT Harbors Division to DOBOR for a new access road to the Small Boat Harbor (South) and an approximately 13 acre harbor area. As the Department of Land and Natural Resources/Division of Boating and Ocean Recreation (DLNR/DOBOR) currently operates the Kawaihae Small Boat Harbor (South) located in the southwest corner of Coral Flats, construction activities at the small boat harbor will be independent from the commercial harbor and Coral Flats. However, a new fence will be installed as an element of this project for recreational and public safety.

10.1.2 Improvements to Main Gate and South Gate for Security
Currently, the traffic ingress and egress for Kawaihae Harbor runs through the Main Gate that will need expanding to accommodate queues at security gates. As of now, the South Gate is closed. Following the Harbor district office relocation and Coral Flats area improvements, the South Gate will be reopened. The Kawaihae Harbor access roads are in need of improvements that are being considered as part of the Kawaihae Development Plan.

10.1.3 Grading of Coral Flats for Industrial Lots and/or Storage
Due to the increased demand of the Coral Flats area for activities related to truck staging and stand-by as well as storage, the DOT-H will be grading additional areas to accommodate these needs.

10.1.4 Pier 2A extension and new Pier 2C
Pier 2A is planned to be extended 340 feet to accommodate "future cargo demands and increase berth capacity" (DOT-H 2011). In addition, reconstruction of Pier 2C to expand it an additional 325 feet will allow a maximum of four 400-foot long barges to berth. The proposed expansion of Pier 2C would also require the removal of the DOBOR boat mooring dock located at the south of end of Pier 2B, which the DOBOR plans to relocate to the nearby Kawaihae Small Boat Harbor Facility (South).

10.1.5 Dredging Activities
According to the Hawai‘i Island Commercial Harbors 2035 Master Plan Update (DOT-H 2011), the berthing area fronting Pier 1 and Piers 2A, 2B, 2C will be dredged to improve navigation within the harbor.

10.1.6 Relocation of DOT-Harbors Office and Comfort Station
In addition, the 2035 Master Plan Update states that, “The DOT-Harbors district office will be demolished and rebuilt in new locations. These facilities will be designed to LEED silver standards and with ADA compliance” (DOT-Harbors 2011).

10.1.7 Operations Yard Improvements
Finally, the 2035 Master Plan Update calls for “…standard updates to harbor security facilities, yard lighting, internal roadway circulation, and pavement strengthening for cargo operations” (DOT-Harbors 2011).

10.2 Potential Impacts from Near-term Improvement Components

In general, to mitigate potential impacts from the following construction projects, a consultative body composed of stakeholders and community leaders could be organized as a “cultural compass” and consulted on issues regarding traditional use associated with the harbor to ensure that impacts and restrictions required by construction activities do not obstruct Native Hawaiians or other groups of their rights to traditional practices.

10.2.1 Impacts from Perimeter Fencing Construction
Cultural activity areas on the southern corner of the Coral Flats, the Pelekāne Bay side of the Coral Flats, and the Pu‘ukoholā Heiau National Historic Site may be impacted by construction of the proposed perimeter fencing. Impacts include visual disruptions, noise disruptions, ocean access, and/or ocean water quality deterioration.

The Kanu o ka ‘Āina New Century Public Charter School (KANU) has a *makai* campus, Hālau Pukui, on the Coral Flats just southeast of the Kawaihae Small Boat Harbor (South)’s East Breakwater. This *makai* curriculum component of KANU plays a vital role in the school’s goal in being a comprehensive Native Hawaiian learning center or *kauhale*. The *makai* campus allows KANU to continue traditional Hawaiian cultural practices associated with multiple marine resource areas as described by Handy and Handy (1991:56-57). Furthermore, KANU also uses the area for physical educational and recreational water activities (swimming and diving), as it is considered a preferred location for its water depth and safety reasons. The Hālau Kukui complex is shared with the Waimea YMCA as their Aquatic Center, where recreational activities are scheduled twice a week during the summer. A modern *ahu* (traditional Hawaiian shrine) has also been erected in this area, which serves as a ceremonial and spiritual conduit between cultural practitioners of the area and the divine aspects of land and sea. Typical noises from the construction of roads and fencing could distract children from their teachings and lessen their cultural experience. The noise would also be problematic to those paying their respects, leaving offerings, or wanting to *pule* (pray) at the modern *ahu*. Further, ocean water quality may be affected by unintentional run-off of disturbed sediment, which could obscure visibility during recreational and educational activities of both KANU and YMCA.

As Pu‘ukoholā Heiau National Historic Site is located immediately to the southeast of the proposed perimeter fencing, impacts from construction would include audio and visual disturbances to cultural activities occurring at this prominent traditional Hawaiian cultural and religious center. Another potential impact from construction noises and run-off could be the discouragement of sharks from frequenting the submerged *heiau*, Hale o Kapuni, which was created out of reverence for sharks in ancient times. While human sacrifices to the shark deity no longer occur, many cultural practitioners feel that there is a lasting connection between sharks and the *heiau*.

Furthermore, on-shore fishing and marine resource collection is likely occurring along the southeast coast, access to these spots and run-off contamination could also temporarily impact these cultural practices. Another major cultural activity area is the Kawaihae Small Boat Harbor (South), which is a DLNR DOBOR facility that will be constructed, operated, and maintained under the oversight of DOBOR. However, this facility continues to be a cultural activity area used by cultural practitioners such as fishermen and marine resource gatherers, whose resources may be impacted by run-off related to the fence construction.

One way to mitigate the noise and visual impacts from construction of the perimeter fencing could be to create a community relations program that could offer information to the public about construction schedules and create construction schedules that avoid major cultural events. If the fencing should obstruct access to the modern *ahu* or marine resource gathering and fishing areas, this subject should also be discussed by the consultative body of stakeholders and community leaders. Public notices could also be provided to notify cultural practitioners of alternative marine resource areas are. To address the potential for water quality being impacted by run-off, which would in turn, impact a variety of aquatic activities and marine resources, developers contracted to perform this work should prepare a comprehensive erosion and sediment control (ESC) plan prior to sediment-disturbing activities.

10.2.2 Impacts from Improvements to Main Gate and South Gate for Security
As with the proposed entry connection component, the Main Gate security improvements will only impact cultural activities if an alternative entry is not provided. As the South Gate is not open to the public, construction of the security gate should pose no threat to cultural activities. However, construction of security elements of the South Gate would best be performed in tandem with the Perimeter Road fencing improvements to serve as a complete entry way and access road to the outer areas of the Coral Flats, as this expanse of coastline provides numerous cultural activity and resource areas. After the South Gate and Perimeter Road are completed, improvements to the Main Gate would have little effect on cultural practices.

10.2.3 Impacts from the Grading of Coral Flats for Industrial Lots and/or Storage
Cultural resource and activity areas have not been identified in the central Coral Flats area, yet many have been identified along its southern edges. Care should be taken to avoid cutting off access to the Pua Ka ‘Ilima ‘O Kawaihae Cultural Surf Park, the Waimea Family YMCA Aquatic Center, Na Kalai Wa‘a Moku ‘O Hawai‘i’s temporary storage location for the Makali‘i, Kanu o ka ‘Āina’s Hālau Pukui, Kawaihae Small Boat Harbor (South), and marine resource gathering locations situated on the outer edge of the Coral Flats along pacific side of the main breakwater. This area is already a popular surfing locale that holds the annual Tiger Long Board Classic surf

competition and fund raisers to construct a cultural center and park for swimmers, divers, fishermen, sailors and/or surfers. Neighboring this park is the Waimea Family YMCA Aquatic center, which is an important locale for water sports and recreation. This area is also home to several traditional Hawaiian educational facilities, including Na Kalai Waʻa Moku ʻO Hawaiʻi's Makaliʻi and Kanu o ka ʻĀina's Hālau Pukui. Furthermore, the area contains the Kawaihae Small Boat Harbor (South) and numerous marine resource gathering locations. If the current access route is cut off, an alternate route should be provided during the construction of these near-term improvement components. Again, the potential for water quality being impacted by run-off is always a concern when ground disturbing activities are carried out, such as grading. The run-off, if allowed to enter the marine environment would impact a variety of aquatic activities and marine resources. Therefore, developers contracted to perform this work should prepare a comprehensive erosion and sediment control (ESC) plan prior to sediment-disturbing activities.

10.2.4 Impacts from Pier 2A extension and new Pier 2C
Pier 2 is in a secured area, and while the public can get to this area, it is only for harbors business. The proposed extension of Pier 2 towards the Kawaihae Small Boat Harbor North and the inner Deep Draft Harbor basin poses little to no threat to cultural practices. However, increase in the size and number of cargo barges may impact the use of the harbor by small boats that currently moor there. Many of these boats are used for recreation, yet, there are some who may depend on the ocean for traditional sustenance and/or business. Should the Pier 2A extension component be initiated, impacts to cultural uses of the inner harbor may occur, as navigation through the harbor's opening will be more hazardous with the arrival and departure of more high-capacity barges berthing at the extended Pier 2A.

The Pier 2C Extension is proposed for the current location of a small craft "dinghy dock" (running parallel to the revetment) and a "finger pier" or "boat dock" (running perpendicular) in the southeast corner of the inner harbor which is heavily used by fishermen and recreational boaters. Canoe clubs currently utilize the inner harbor during practices and regattas. If the inner harbor is no longer available, paddlers may need to utilize the open ocean. Further, as with the Pier 2A Extension, the addition of Pier 2C Extension will usher in more high-capacity barges, increasing the danger of capsizing for paddlers and boaters utilizing the inner harbor. Given the dangers that accompany these near-term improvements, the best way to mitigate the potential displacement of such a large number of small boat users is to encourage and support DLNR DOBOR in their efforts to complete the Kawaihae Small Boat Harbor (South) before these improvements are initiated, to ensure that enough space for safe traffic and affordable mooring is available for the displaced inner harbor boaters. However, DOT-H has no direct control over the development of the Kawaihae Small Boat Harbor (South), but, DOT-H acknowledges that it is preferable to complete the Small Boat Harbor (South) facilities prior to the near-term improvements to avoid impacts to cultural practices currently occurring in the inner harbor. In conclusion, impacts to boating and/or fishing are likely if the Small Boat Harbor (South) is not completed prior to building the Pier 2C Extension as an alternate launching and berthing area. Furthermore, paddling activities will also be impacted with the increase of large vessel traffic.

10.2.5 Impacts from Dredging Activities
Similar to the Pier 2A and 2C extensions, fishing and small boat activities will be impacted from maintenance dredging occurring in front of the existing piers. The area referred to as "the

swale" by locals, will be blocked from the interior harbor by the dredging area, hindering the movement of fish as well as boat traffic to and from the interior harbor to this locale (Figures 2 and 7). Fishing is a popular cultural activity in the swale area, especially when *oama* or juvenile *weke* (Mullidae spp.) and *halalū* or juvenile *akule* (*Trachurops crumenophthalmus*) are in season. Furthermore, there may be an impact on Puʻukoholā Heiau. The threat to Puʻukoholā during the dredging construction phase of the drilling and blasting has been considered in the Final Environmental Impact Statement for Hawaiʻi Commercial Harbors 2020 Master Plan (Towill 2001). The drilling and blasting activities will result in noise and vibration that could affect the rock walls of the nearby *heiau* — Puʻukoholā, Mailekini, and Hale O Kapuni. Towill (2001) proposes the following mitigation measures to address the noise and vibration threat to Puʻukoholā Heiau:

> Under the 2020 Master Plan, Harbors Division will retain the current buffer zone between the Puʻukoholā Heiau National Historic Site and the Kawaihae Harbor…Risk of vibrations from pile driving and/or blasting posed to nearby Puukohola will be evaluated during the design phase. If the risk is determined to be prohibitive, alternative methods will be considered for dredging and pier construction [such as drilling]…Technologies that would be considered as an alternative to blasting at Kawaihae Harbor during the dredging process are the use of cutterheads, drag line operations or roadcutters, to dredge designated areas. Other alternatives to blasting, such as technology using pre-drilling and expansion gels to split rock, will also be evaluated" (Towill 2001:4-14).

As previously stated, cultural activities related to boating in the inner harbor can be protected if the Kawaihae Small Boat Harbor (South) as an alternate boating location is completed before dredging begins.

10.2.6 Impacts from the Relocation of DOT-H Hawai'i District Office and Comfort Station
No cultural resources or activity areas were identified for these components of the near-term improvements project. However, if new comfort stations are to replace existing comfort stations, the new comfort stations should be completed prior to the closure of existing comfort stations to prevent the contamination of cultural and natural resource areas with human effluent.

10.2.7 Impacts from Operations Yard Improvements
As these proposed improvements appear small in scale, though ubiquitous throughout the project area, there appears to be no cultural activity areas that will be impacted.

11.0 CONCLUSION

This CIA is designed to promote and protect cultural beliefs, practices, and resources of Native Hawaiians, other ethnic groups, as well as other collective groups associated with the subject area under Chapter 343 HRS, and Act 50, SLH 2000 (OEQC 2011: 3-4). Further, OEQC guidelines state that types of cultural practices and beliefs may include those relating to subsistence, commercial, residential, agricultural, access-related, recreational, as well as religion and spirituality. Mitigation measures have been proposed, which include the establishment of a consultative body to ensure the measures are appropriate and acceptable.

There is minimal concern of any impacts associated with the Main and South Gate improvements, grading of Coral Flats, relocation of the DOT-Harbors office and comfort station, or operations yard improvements at this time.

However, several impacts have been identified with the construction of perimeter fencing, Pier 2A extension, and Pier 2C, as well as the dredging of the Kawaihae Deep Draft Harbor, also known as the inner harbor.

As the South Gate improvements are designed to improve access for cultural practitioners and recreationists to the outer coast of the harbor, construction related impacts would be tolerable if mitigated properly. However, proposed improvements to the inner harbor, including Pier improvements and dredging, are designed to expand and enrich commercial use rather than cultural use of the inner harbor. Perhaps, in terms of public safety, these improvements benefit the community by protecting them from potential dangers related to commercial and military activities occurring within the inner harbor. Nonetheless, in order to protect current cultural resources and practices associated with Kawaihae Harbor, it is crucial that access to comparable activity areas be provided to the public before these projects are initiated.

A formal "town hall" style meeting with stakeholders would be a good way to dispel misconceptions and begin a healthy discourse regarding the proposed project. Further, the proposed establishment of a consultative body would serve as a "cultural compass" and would ensure the implementation of appropriate mitigation measures to minimize any impacts, particularly those concerning traditional cultural practices.

12.0 REFERENCES CITED

Apple, Russell
1978 *Pahukanilua: Homestead of John Young, Kawaihae, Kohala, Island of Hawai'i.* National Park Service, Hawai'i State Office, Honolulu.

Apple, Russell and William Kikuchi
1975 *Ancient Hawai'i Shore Zone Fishponds: An Evaluation of Survivors for Historical Preservation.* Office of the State Director, National Park Service, United States Department of the Interior.

Barrera, William, Jr.
1971 *Anaehoomalu: A Hawaiian Oasis.* Pacific Anthropological Records, 15. Bishop Museum, Honolulu.

1974 *Archaeological Survey of the Waimea to Kawaihae Road Corridor Island of Hawai'i.* Department of Transportation, State of Hawai'i.

Chinen, Jon J.
1958 *The Great Mahele.* Honolulu: University of Hawai'i Press.

Ching, Francis
1970 "Surface Survey and Limited Salvage of a Two-mile Portion (Keāhole Point Area) of the Kailua-Kawaihae Road Corridor. Department of Land and Natural Resources, State Parks Division.

Clark, Jeffery T.
1983 "Archaeology Investigations in Section 1. In *Archaeological Investigations of the Mudlane – Waimea – Kawaihae Road Corridor, Island of Hawai'i,* edited by J. T. Clark and P. V. Kirch, Department of Anthropology, B. P. Bishop Museum, Honolulu.

1986 *Waimea – Kawaihae, A Leeward Hawai'i Settlement System.* University of Illinois at Urbana-Champaign.

Clark, Jeffery T. and P. V. Kirch
1983 *Archaeological Investigations of the Mudlane – Waimea – Kawaihae Road Corridor, Island of Hawai'i.* Department of Anthropology, B. P. Bishop Museum, Honolulu.

Cordy, Ross
2000 *Exalted Sits the Chief.* Mutual Publishing.

Cordy, Ross; Joseph Tainter; Robert Renger; and Robert Hitchcock
1991 *An Ahupuaʻa Study: The 1971 Archaeological Work at Kaloko Ahupuaʻa, North Kona, Hawaiʻi Island.* Western Archaeological and Conservation Center Publications in Anthropology No.58 National Park Service.

Department of Transportation, Harbors Division (DOT-Harbors)
2011 Kawaihae Commercial Harbor Improvements Kawaihae, Island of Hawaiʻi Project Summary. August 2011. Version 3.

Ellis, William
1963 *Journal of William Ellis: Narrative of an 1823 Tour Through Hawaiʻi or Owhyhee With Remarks on the History, Traditions, Manners, Customs, and Language of the Inhabitants of the Sandwich Islands.* Advertiser Publishing, Honolulu.

Fornander, Abraham
1917 "Fornander Collection of Hawaiian Antiquities and Folk-Lore." Memoirs of the Bernice Pauahi Bishop Museum of Polynesian Ethnology and Natural History Vol. IV, Bishop Museum Press, Honolulu.

1996 *Ancient History of the Hawaiian People.* Mutual Publishing, Honolulu.

Greene, Linda W.
1993 *A Cultural History of Three Traditional Hawaiian Sites on the West Coast of Hawaiʻi Island.* United States Department of Interior, National Park Service, Denver Service Center.

Handy, E.S.C. and E.G. Handy
1991 *Native Planters in Old Hawaiʻi: Their Life, Lore, and Environment.* B.P. Bishop Mus., Bull. 233.

ʻĪʻī, John Papa
1959 *Fragments of Hawaiian History.* Bishop Museum Press, Honolulu.

Kamakau, S.M.
1961 *Ruling Chiefs of Hawaiʻi.* Honolulu: Kamehameha School Press.

Kelly, Marion
1974 *Historical Survey of the Waimea to Kawaihae Road Corridor, Island of Hawaiʻi.* Department of Anthropology, B. P. Bishop Museum, Honolulu.

Kirch, Patrick
1985 *Feathered Gods and Fishhooks.* University of Hawaiʻi Press, Honolulu.

Kuykendall,
1947 *Hawaiian Kingdom, 1778-1854.* University of Hawaiʻi Press, Honolulu.

Langlas, Charles
1994 *Puʻu of Mauka Kawaihae and Kohala Ahupuaʻa, District of Kohala, Hawaiʻi Island. Report of an Investigation of the Hawaiian Cultural Significance of Candidate Sites for the Kamuela Area (Hawaiʻi) NEXRAD Installation, Part 1.* Prepared for SRI International, Menlo Park, CA.

Maly, Kepā
2000 "Na Honokohau – Na Hono I Na Hau ʻElua (Honokohau – Bays of the Two Wind-Born Dews)". Prepared for Lanihau Partners, L.P., Honolulu.

Pukui, Mary K.
1983 *ʻŌlelo Noʻeau, Hawaiian Proverbs and Practical Sayings.* Bishop Museum Press, Honolulu.

Pukui, Mary K.; Samuel Elbert; Ester Mookini
1974 *Place Names of Hawaiʻi.* University of Hawaiʻi Press, Honolulu.

Oaks, Robert
2003 *Hawaiʻi: A History of the Big Island.* Arcadia Publication, San Francisco.

Office of Environmental Quality Control (OEQC)
2011 Guidelines for Assessing Cultural Impacts, as adopted by the State of Hawaiʻi. Environmental Council, in 1997 and amended in 2000. Electronic document in OEQC website (http://oeqc.doh.hawaii.gov/ Shared%20Documents/ Environmental_Assessment_PrepKit/ Cultural_Impact_Assessments/Guidelines-Assessing-Cultural-Impacts.pdf). Accessed in April 2011.

Schilt, Rose
1984 *Subsistence and Conflict in Kona, Hawaiʻi: an Archaeological Study of the Kuakini Highway Realignment Corridor.* Department of Anthropology, Bishop Museum, Series 84-1.

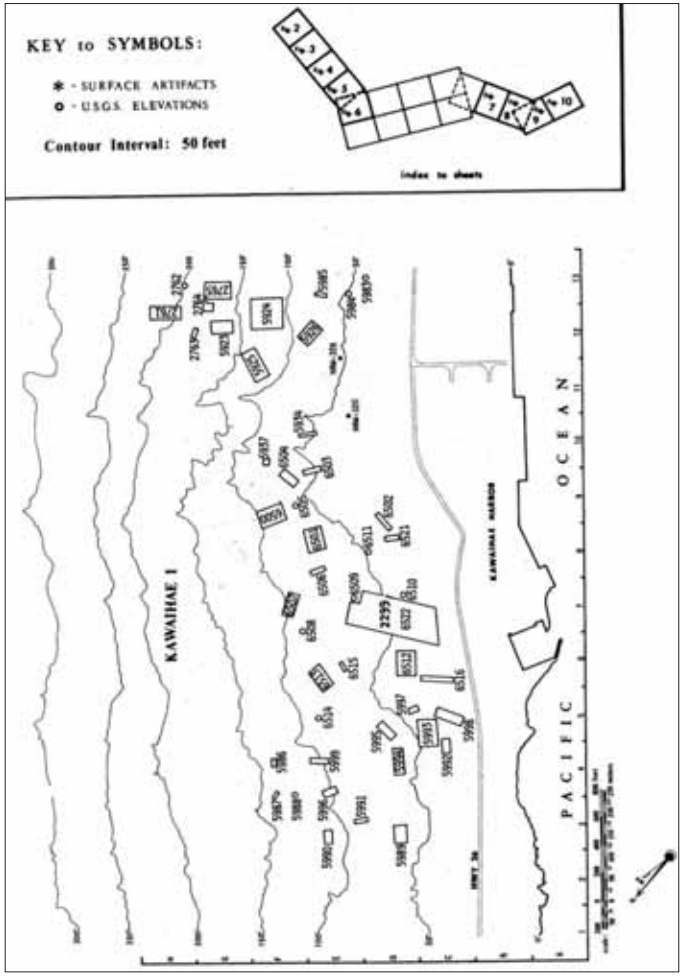
Schmitt, R.
1977 *Historical Statistics of Hawaiʻi.* The University of Hawaiʻi Press, Honolulu.

Soehren, Lloyd J.
1980 *An Archeological Reconnaissance Survey of a Portion of Kawaihae 2, South Kohala, Hawaiʻi.* Prepared for Mauna Kea Land Corporation.

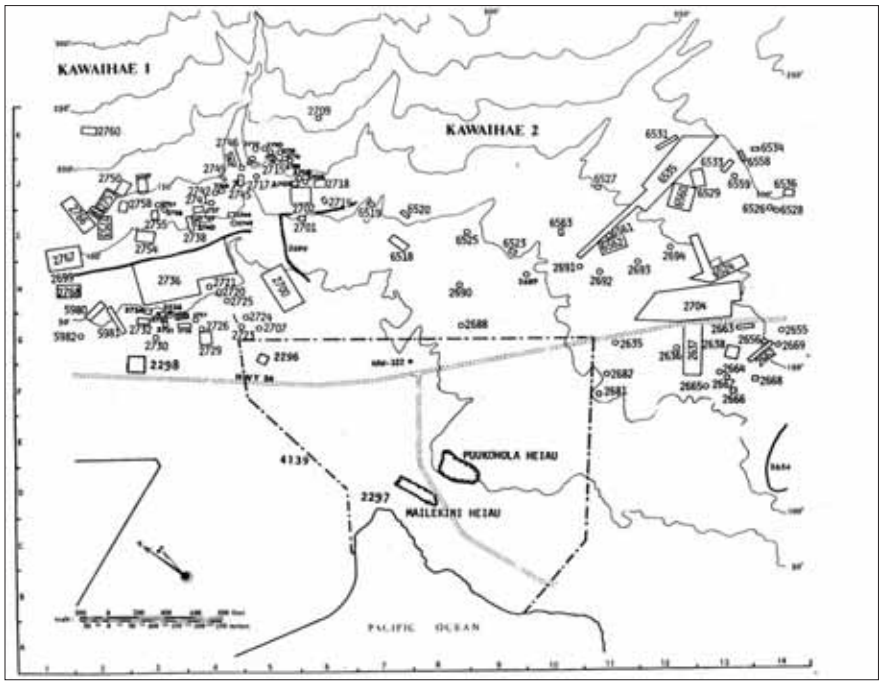
Towill, R.M. and Company
2001 Final Environmental Impact Statement for Hawaiʻi Commercial Harbors 2020 Master Plan. State of Hawai1i Department of Transportation, Honolulu.

APPENDIX A

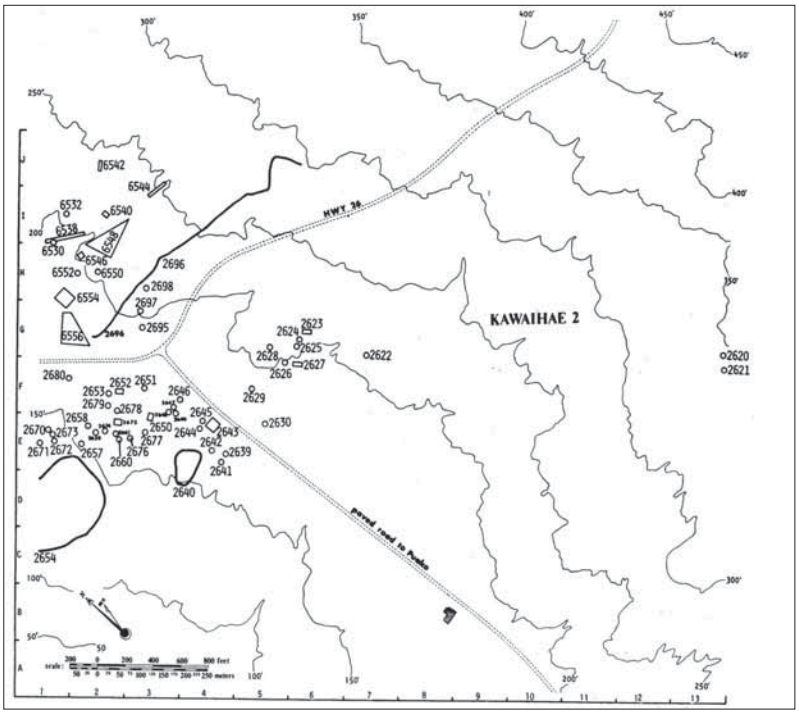
SELECTED MAPS IDENTIFYING ARCHAEOLOGICAL SITES (FROM BARRERA 1974:5-7)



Location of sites in Kawaihae 1 (Contours show elevation above mean sea level.).



Location of sites in Kawaihae 1 and 2 (Contours show elevation above mean sea level.).



Location of sites in Kawaihae 2 (Contours show elevation above mean sea level.).

APPENDIX B

QUESTIONNAIRE FOR KAWAIHAE HARBOR DEVELOPMENT CULTURAL IMPACT ASSESSMENT

QUESTIONNAIRE FOR KAWAIHAE HARBOR DEVELOPMENT CULTURAL IMPACT ASSESSMENT

Name: Birth Name:
Birth Date: Birth Place:
If not born here, when did you move here?
Current Address:
Where did you grow up?
Parents:

What is your relationship to the area?

How familiar are you of the subject area?

What is this area called (What do you call this area)?

What are the physical characteristics of the area?

Any significant or special features in this area as it related to land use and/or history?

How was the area used by the people?

Land Use:

What kinds of activities have you observed in the area?

Activities	What	Season	Who
Hunt			
Gather			
Habitation			
Ceremonial (Burials)			
Agriculture			

Intensity of land and/or resource use?

What have you heard of this area?

Have you observed land/resource modification in the area? Why?

What are your thoughts about the project proposal?

APPENDIX C

PERSONAL RELEASE OF INTERVIEW INFORMATION

PACIFIC LEGACY, INC.

ORAL HISTORY STUDY
PERSONAL RELEASE OF INTERVIEW RECORDS

Project: Kawaihae Harbor Development CIA

Date of Interview: June 14, 2008

I, Daniel Akaka, Jr, have been interviewed by Betty Fielder of Pacific Legacy, Inc. for the above referenced project. I have reviewed the typed summary of the interview and agree that this document is complete and accurate, except for the clarifications and corrections noted below. I further agree that the interview information may be used in a report that may be made public, subject to my specific objections and restrictions set forth below.

CLARIFICATIONS AND CORRECTIONS:

SPECIFIC OBJECTIONS AND RESTRICTIONS:

Interviewee Signature

7/17/08
Date

PACIFIC LEGACY, INC.

ORAL HISTORY STUDY
PERSONAL RELEASE OF INTERVIEW RECORDS

Project: Kawaihae Harbor Development CIA

Date of Interview: June 6, 2008

I, Annie Kahikilani Akau, have been interviewed by Betty Fielder of Pacific Legacy, Inc. for the above referenced project. I have reviewed the typed summary of the interview and agree that this document is accurate, except for the clarifications and corrections noted below. I further agree that the interview information may be used in a report that may be made public, subject to my specific objections and restrictions set forth below.

CLARIFICATIONS AND CORRECTIONS:

SPECIFIC OBJECTIONS AND RESTRICTIONS:

Annie K. Akau
Interviewee Signature

21 July 2008
Date

PACIFIC LEGACY, INC.

ORAL HISTORY STUDY
PERSONAL RELEASE OF INTERVIEW RECORDS

Project: Kawaihae Harbor Development CIA

Date of Interview: May 14, 2008

I, William Akau, have been interviewed by Betty Fielder of Pacific Legacy, Inc. for the above referenced project. I have reviewed the typed summary of the interview and agree that this document is complete and accurate, except for the clarifications and corrections noted below. I further agree that the interview information may be used in a report that may be made public, subject to my specific objections and restrictions set forth below.

CLARIFICATIONS AND CORRECTIONS:

SPECIFIC OBJECTIONS AND RESTRICTIONS:

William Akau
Interviewee Signature

17 July 2008
Date

PACIFIC LEGACY, INC.

ORAL HISTORY STUDY
PERSONAL RELEASE OF INTERVIEW RECORDS

Project: Kawaihae Harbor Development CIA

Date of Interview: June 24, 2008 via Telephone

I, Kū Kahakalau, have been interviewed by Betty Fielder of Pacific Legacy, Inc. for the above referenced project. I have reviewed the typed summary of the interview and agree that this document is accurate, except for the clarifications and corrections noted below. I further agree that the interview information may be used in a report that may be made public, subject to my specific objections and restrictions set forth below.

CLARIFICATIONS AND CORRECTIONS:

Please note the correction on 1st page - Should be Kukui - as indicated. Also, an (') in front of ohw.

SPECIFIC OBJECTIONS AND RESTRICTIONS:

Interviewee Signature

7/22/08
Date

PACIFIC LEGACY, INC.

ORAL HISTORY STUDY
PERSONAL RELEASE OF INTERVIEW RECORDS

Project: Kawaihae Harbor Development CIA

Date of Interview: May 13, 2008

I, Eddie Laau, have been interviewed by Betty Fielder of Pacific Legacy, Inc. for the above referenced project. I have reviewed the typed summary of the interview and agree that this document is complete and accurate, except for the clarifications and corrections noted below. I further agree that the interview information may be used in a report that may be made public, subject to my specific objections and restrictions set forth below.

CLARIFICATIONS AND CORRECTIONS:

SPECIFIC OBJECTIONS AND RESTRICTIONS:

Interviewee Signature

7/17/08
Date

PACIFIC LEGACY, INC.

ORAL HISTORY STUDY
PERSONAL RELEASE OF INTERVIEW RECORDS

Project: Kawaihae Harbor Development CIA

Date of Interview: May 16, 2008

I, Naomi Laau, have been interviewed by Betty Fielder of Pacific Legacy, Inc. for the above referenced project. I have reviewed the typed summary of the interview and agree that this document is complete and accurate, except for the clarifications and corrections noted below. I further agree that the interview information may be used in a report that may be made public, subject to my specific objections and restrictions set forth below.

CLARIFICATIONS AND CORRECTIONS:

SPECIFIC OBJECTIONS AND RESTRICTIONS:

Interviewee Signature

7/17/08

Date

PACIFIC LEGACY, INC.

ORAL HISTORY STUDY
PERSONAL RELEASE OF INTERVIEW RECORDS

Project: Kawaihae Harbor Development CIA

Date of Interview: June 13, 2008

I, Martin Ikua Purdy, Sr, have been interviewed by Betty Fielder of Pacific Legacy, Inc. for the above referenced project. I have reviewed the typed summary of the interview and agree that this document is complete and accurate, except for the clarifications and corrections noted below. I further agree that the interview information may be used in a report that may be made public, subject to my specific objections and restrictions set forth below.

CLARIFICATIONS AND CORRECTIONS:

SPECIFIC OBJECTIONS AND RESTRICTIONS:

Martin P Purdy Sr
Interviewee Signature

7-17-08

Date

PACIFIC LEGACY, INC.

ORAL HISTORY STUDY
PERSONAL RELEASE OF INTERVIEW RECORDS

Project: Kawaihae Harbor Development CIA

Date of Interview: May 14, 2008

I, Manny Vaincent, have been interviewed by Betty Fielder of Pacific Legacy, Inc. for the above referenced project. I have reviewed the typed summary of the interview and agree that this document is complete and accurate, except for the clarifications and corrections noted below. I further agree that the interview information may be used in a report that may be made public, subject to my specific objections and restrictions set forth below.

CLARIFICATIONS AND CORRECTIONS:

SPECIFIC OBJECTIONS AND RESTRICTIONS:

Manny Vaincent
Interviewee Signature

July 17, 2008
Date

APPENDIX D

INTERVIEWS

DANIEL KAHIKINA AKAKA, JR.
Cultural Practitioner and Director of Cultural Affairs at Mauna Lani Resort

Born in Honolulu to father Daniel Kahikina Akaka, Sr., and mother Mary Mildred Chong. Hawai'i Island has been home for past 30 years.

First stayed at a cottage at Kalahuipua'a in 1972 as a UH student. The Kihei family that lived down here worked for Tokyu Corp. maintaining the ponds. This became something of an outdoor classroom … working with this old couple who spoke mainly in the Hawaiian language and shared stories of the area.

Many of the *kūpuna* of the area were still around and it was an opportunity to have them share their knowledge of the area. Try to bring those things out to educate people of the value of this area. Many of the things may be gone, but, it's still an important part of the place.

Kawaihae is one of those areas which has gone through many changes over time—the *pā honu* are not there, the *poho pa'akai* are not there, the old houses and ponds are not there, most of the area was filled in, the island of Puakailima is no longer there. A lot of things are gone, but the memories remain.

We often think of how things used to be. Although we live in a time of change, we still maintain a sense of respect. Today the opportunity to share thoughts of the land hopefully will help people gain more respect for the place. Share things we grew up with, you "*mālama* the *'āina* the *'āina* will *mālama* you". *'Āina* refers to "that which feeds", so if you take care of that, the *'āina* will give back to you. Never abuse the place, always need to take care of it.

In an earlier time land "ownership" was not thought of, it was a foreign concept. In time the Hawaiians did not get the land that was rightfully theirs, and lost it through adverse possession and other ways. But, yet, they still have that strong connection to the land. So, we would hope that the people that come here to live would treat it with respect and look at it as a gift, a place to cherish. So if you must change it try not to change it to the point that it looks so different. Look at what nature has given to you and work within the parameters you have so you don't cover up and erase everything. Keep the things that are important. And if there are cultural sites, *mālama* those sites. Sometimes there's *iwi* resting there, sometimes there's *ki'i pōhaku*, whatever there might be…that's a valuable part of the past. If you were honored and destined to have this, then you need to take care of it.

Things change, and the present generation should try and help steer the change so we don't go to the far end. We have the opportunity to pass on the knowledge and to help and guide the progress/process.

In change, we should be considered as a "cultural compass." And, we should look for the balance. Things will come around, usually to make things right.

Twilight at Kalahuipua'a is an opportunity to share history and culture through song and music. The program is spontaneous and the invited special guests and *kūpuna* talk about how it was growing up in Hawai'i and share their stories.

The Hawaiians of this area had intimate knowledge of the area, all the names, all the things that existed here, the best fishing spots, the times to go to get certain things—for example, *he'e*. Understood that everything had its place and everything was important. You always ask before you take and you always respect, always give back in some way.

Whatever we do today will affect the future. Ancient way of planning…whatever you produce or do to save the natural resources, you think seven generations ahead…what is done today should provide for seven generations ahead. Think about the impact down the line. How will it affect the surrounding areas, the coast and the fishing, for example.

The community can be a partner in the development. Consult local people and seek their advice, because they have longevity here and know the area intimately. Ask for community input. (Such as a Community Cultural Advisor Group.)

Hawaiians didn't do anything without a reason. They didn't waste their motion. There was purpose in everything. That's why when you see something, it was placed there for a reason. (Pu'ukoholā was built there for a reason.)

Regarding the Superferry:
1. Concerned about the convenience of access to the natural resources by people coming in from where they don't have those resources anymore. We understand the very the fragile nature of the resources. We see it already with people who throw net and take even the young fish, or when they try to catch mullet when off-season. People who might not respect the areas will impact the food gathering resources.

a. Management/regulation enforcement should be initiated to limit catch or harvest.

b. Education program should be implemented. The superferry has an opportunity to create the understanding of respect. It can be done in a gentle Hawaiian way as to impart the message to *mālama* and soften the impact of the areas.

2. Transporting of harmful alien species. For example, Big Island honey bee population could be threatened by the importation of parasites. Think about it ahead of time. Save and protect things here and prevent importation of harmful things and species.

WILLIAM AKAU

Born and raised in Kawaihae. Former Harbor Master of Kawaihae Harbor, as was his father before him.

Kawaihae beach stretched from the small boat harbor to the heiau. Every year, families from all over would come to Kawaihae beach to picnic and play games.

Younger years, fish all along the coast down to Kona and even to South Point. But, did a lot of shoreline and reef fishing, as well--spearing (*kole*) and net fishing. Also, *hukilau*. *Limu* grew in Pelekāne area where the fresh water used to run. There were a lot of crabs. Raised pigs, mules, and chicken (Leghorn) all along the beach.

Kawaihae had coconut trees. Mango trees were on the other side of Spencer Park and up *mauka*.

Kawaihae Uka was the farm area. Cattle ranching replaced the farms. The *mauka-makai* trails are not used today. These are historical trails and should have markers so people will know. In ancient times, during the winter months, Waipiʻo was rainy and not much to do, so the *aliʻi* would walk the trails and come to Kawaihae. Mailekini was a temporary camp.

Behind great grandfather's house there were 4 fishponds. Every year, the young *pua-awaʻa*, mullet were caught by net in Pelekāne Bay. The *pua* were counted and placed in the ponds to raise 'til a certain size. Then they were transplanted to the ponds at Anaehoomalu. Every year they were harvested for the Parker Ranch party.

The Kawaihae fishponds were the old salt pans.

Pelekāne is getting shallow because of the silt building up in it. This is due to the harbor which was constructed and blocked the natural current of the area. Now the small fish do not have a safe place to grow up. What they should do is cut a channel through the harbor. If they open it up, the fish will come back.

The current comes in from the south and goes north along the shore line. The harbor blocks the flow of the current and it can't clean the bay and bring in new sand. Even Spencer Beach before had white sand, now it is getting dirty.

Before Mother Nature took care of things. When you disturb Mother Nature, you have to do something. In this case, open a channel to improve the flow of water. Improve the beach for the kids. It is important for children to have good things in their life growing up.

Participate at Puʻukoholā in an advisory capacity now.

Regarding the Superferry:

1. Travel between islands used to be with ships. Then the airlines came in and we flew between islands. Now, we have a choice if we want to go by sea or by air.(Before, we had no choice—first it was by boat, then when the airplanes came, the boat went out of

business, so we had no choice but to fly).

2. It should be the responsibility of the State and County to regulate the harvesting of natural resources. The ferry is to transport you and your family, and maybe your car, but not to take freight or cargo in your car.

ANNIE KAHIKILANI (LANI) AKAU

Father, William Akau, from Kawaihae-Uka, South Kohala. Mother, Helen Kahoʻu, from Makapala, North Kohala.

Site visitation to harbor and Puʻukoholā.

Not much vegetable were grown in Kawaihae. Some sweet potato was grown. People *mauka* (Waimea) would bring down vegetables. For example, when the farmers got through working, they would come down to catch *namako*. They wanted to go to Mauna Lani, that's what they call it now, but that's Kalahuipuaʻa. They would ask my father if they can go in there, because my father had a key—he was harbor master and post master. When *pau* they would return the key. They would all bring down some vegetable - bag of cabbage, lettuce, diakon, gobo - half bag this and half bag that.

We couldn't eat all the vegetables, so it was shared with the people at Kawaihae. We were all one big family - Hawaiians, Japanese, Chinese, Filipino, Korean, Portuguese. We give and they give back. We don't buy, we barter. It was the way of life.

At times we would call one of my father's first cousins to come from Kohala and pick up fish for the family. And, when they have *limu kohu* they would bring for my father. All cleaned ready for eat.

Kamehameha came to Puʻukoholā because his *kahuna* Kapouʻahi told him "you build a *heiau* for your god Kukaʻilimoku. That is why it was built here in 1791. There is an *ahu* in this *heiau*. The *ahu* is still there. It belongs to Lono – Lonoikamakahiki. He built in 1540.

Enter the temple? Just be careful. When you die your bones go to the earth, but your spirit go to heaven. The good spirits are not going to hurt you, because when they were here they did not hurt people. The bad spirits, yes.

Kamehameha used to sit here on the side of the hill on the stone chair and watch the sharks come into Pelekāne Bay. Inside the bay is Hale-o-Kapuni, where the sharks come. So Kamehameha would be right here and pick up the sharks and break their backs over his knee. That was his game.

Pelekāne is where the ships used to come in because this is where Kamehameha was. Mailekini used to have thatched roof. That's where people used to stay. Later, Kamehameha turned it into place where his warriors could practice.

The path below Mailekini is part of the old trail. The trail goes past the *heiau* and down across to Spencer Park and Ohaiula Beach.

The harbor construction began in 1953. They dredged the coral and used it to fill in the bay to build the harbor and blocked up one-end of the bay. They disturbed the area. They blocked the currents and the water cannot pass through.
Pelekāne Bay used to be where the fish came in to spawn. Not anymore. Pelekāne is silted

because the currents do not flow through to clean and circulate the water. The ocean water outside the bay is much cleaner than the water inside Pelekāne Bay. The scientists are telling us that there's no more fish out there—big fishes in the ocean. Because the fish no longer come in to spawn at Pelekāne.

We used to catch the *pua*-fingerlings at Pelekāne to raise in the fishponds behind my great grandfather's house. When they got bigger, we would take them to the fishponds at Anaehoomalu and Kalahuipuaʻa.

There were about 13 kinds of *limu* over here at Pelekāne. Now there's none. The only *limu* we did not have was *limu kohu*. *Limu kohu* was found in Kohala, because it needs rough water. We used to come on the boat from Kawaihae side through Pelekāne, because the channel was here. When the waves were really big you come in from where the pavilion is at Spencer and come along the coast and come straight into Pelekāne. Now, the coast is silted. We went fishing almost every day in the summer.

There is a well that is called Kawaihae. It is close to the intersection of the Kawaihae and Akoni Pule Highway, where the big anchor is at the junction.

Kawaihae is a place for family. My great grandfather lived here. Isaac Davis, grandson married the twin of my great grandmother. My grandmother's mother's name was Kamakaehukaiopuapoai. And, Tutu Anna's mother's name was Punohuulaokekai. All the names had something about the ocean. Because they depended on the ocean.

On the makai side of the Queen Kaʻahumanu Highway are stone walled square structures--these were for animals. During the day, the animals were let free to graze. (Indicated that there were family graves in the vicinity.)

Regarding Pier 4: That is the only place open for swimming. That should be reserved for the families and *keikis* for them to enjoy. Kawaihae was used by everybody from all over the island to enjoy.

Regarding the Superferry: Concerned that people will come from other islands and horde the resources, such as *limu*, *ʻopihi*, etc. It is like coming to your house to steal from you. Resources should be taken only as needed and left for another time or other people, not horded.

Strongly feels that a channel should be constructed through the coral flats, but closer the water's edge to open it up and allow for the flow of water west to south. Then the currents can clean Pelekāne and the coast line down to Spencer Park and Ohaiula Beach.

KŪ KAHAKALAU
Director of KANU O KA ʻĀINA NEW CENTURY PUBLIC CHARTER SCHOOL (KANU) and a cultural practitioner.

Halau Kukui in Kawaihae is the school's makai campus. Various curriculum subjects are taught at the site—math, science, P.E. Students also work on a variety of projects relating to the ocean and the shoreline.

An *ahu* is located at Halau Pukui. It is a living *ahu*, meaning that it is being taken care of and used in the conduct of various ceremonies as part of the cultural curriculum (such as the annual Makahiki activities) or by the public. The entire school participates in the Makahiki. Traditional water sports are part of the celebration.

Makahiki festivities start at the ocean, because Lono comes from the ocean, and proceeds mauka to Waimea.

Significance of the area: Being in direct alignment with Puʻukoholā, it is a cultural and spiritual powerful area.

Regarding the harbor development plans: Feels very strongly that any changes to the harbor will be detrimental to the environment — not seen anything positive from the construction of the harbor. Dramatic changes with the fish population and reef over the years and it's not getting better.

The harbor is used by lots of families as it is a preferred spot for swimming, fishing and picnics. Directly impact on the rights of native people. Restricts access to the ocean to practice customary spiritual, ceremonial and fishing activities.

Regarding the Superferry: Strongly against the operation. We have already seen the impact of non-Hawaiʻi residents when they come to the island and indiscriminately harvest the island's resources. Many on the island are subsistence farmers, fishermen and hunters. We should be working for island sustainability. Hawaiʻi island sustainable resources have to be protected — *mālama ʻāina*. We will be encouraging the opposite with the superferry.

From the KANU web site as reference to telephone interview:

- MISSION: A culturally-driven, family-oriented and community-based model of education. As a result, the community and the surrounding environment become our living learning laboratories, where students and community work together to create a future that is *pono* — everything that is good and right from a Hawaiian perspective.
- VISION: The vision of KANU is to expand our quality K-12, standards-based charter school into a comprehensive Native Hawaiian learning center or *kauhale* which can address the educational and cultural needs of all stakeholders from the womb to the tomb.
- BELIEFS: KANU is based on the following beliefs:

- Hawaiian knowledge structure differs significantly from the Western system of education. As an indigenous people, Hawaiians have the right to design and control our own education.
- Hawaiian students can succeed in the 21st century without having to give up their Hawaiian cultural values and traditions.
- When Hawaiian culture, language and values are incorporated into the pedagogical process at all levels, education has its deepest relevance and meaning for Hawaiian children. As a result, students are able to learn, to grow and to excel both in the academic setting and in life.
- The integration of the natural environment into a quality Hawaiian curriculum is absolutely essential.

Culturally driven — this means that students learn in a culturally congruent way, how to continue Hawaiʻi's native heritage, values and practices, including our native language, into the next millennium. In addition, KANU's educational foundations including curriculum and instruction, assessment, epistemology, school structure and other facets are aligned with Hawaiian values, which have guided our behavior for centuries. Some of these culturally driven foundations of KANU include:

- Promotion of the use of Hawaiian language at all age levels.
- A formal and informal system guided by Hawaiian values.
- Strong familial relationships and family involvement, especially utilization of the essential wisdom of elders in the education process.
- Inclusion of Hawaiian protocol and traditional spirituality.
- An educational environment that recognizes, respects and promotes Hawaiian values, ideologies and philosophies.
- Instruction and assessment tailored to Native learning styles and multiple intelligences.
- Traditional Hawaiian educational methods such as interdisciplinary and interactive education, hands-on activities, project based learning, aural/oral learning, multi-age grouping etc. that appeal to native students.
- A strong integration of the natural environment, the Native community and Native concerns into daily learning.
- Emphasis on academic rigor based on traditionally valued personal and collective excellence.
- An ongoing culturally appropriate and sensitive professional development component for all staff.
- An in depth research and evaluation process founded on Indigenous research methodologies.

EDDIE (LALA) LA'AU

Born in Puakō.

Married Naomi Kaiamakini, originally from Kalaoa, Kona, but raised at Kahua Ranch.

Father: Eddie La'au
Mother: Rachel Obata (*hānai* to La'au). Lived 'til 90.
Grandmother: Annie Martinson
Step Grandfather: Jack Paula

Lived right on the beach, on the sand. Neighbor was Nakazawa.

Livelihood activity for the village was fishing.

The sampans were built by Matsumoto in Kawaihae.

Fished mostly for *aku*, *'ōpelu*, and bottom fish — *onaga*, *'ōpakapaka*, *uku*.

Aku was fished in the summer, *'ōpelu* and bottom fish in the winter. *Nehu* was used for bait to catch *aku*. Catch the *nehu* with net at the beach (Pelekāne).

Sold to fish peddlers. The fish peddlers trucks with ice would be waiting on the beach.

'Ōpelu fishing is a dying art. Use net to fish *'ōpelu*. Catch of 300-500 up to 700lb of *'ōpelu*. Dried and delivered.

Bottom fishing is done with hand line.

The Hawaiian way of fishing-use of currents and landmarks (mountains, rivers).

Have knowledge of *ko'a* (fisheries).

Reef fishing was for the home consumption.

Gathered *limu*, *'opihi*.

Hunt for pig, birds (dove), goats.

Village had coconut trees and mango trees.

Doi's had watermelon patch and piggery.

Grave sites: Chinese/Japanese/Hawaiian

Favor the ferry. Don't like to fly. But, concerned that people may use the ferry to come to fish and gather resources (like *'opihi*) for commercial purposes.

NAOMI KAIAMAKINI LA'AU

Born in Kalaoa, North Kona, but raised at Kahua Ranch, Kawaihae, South Kohala. When 2-3 years old moved to Kahua Ranch.

Father was John Kaiamakini; mother was Elizabeth Lincoln.

Served in the Army 4 years. Married Eddie La'au in 1958 and moved to O'ahu for 5 years. Moved to Kawaihae in 1962. The La'au house was across the street from the fish market. Eddie's father did *aku* fishing. He had Filipino hired men to work on the boat. Behind the fish market were houses where the Filipino families lived (that was the Filipino camp).

Mounds in the back of the fish store are believed to be graves. Surveyed the mounds along with her father-in-law with people from the Bishop Museum who indicated that one of the sites may be the grave of Macy. (Pictures of her and her father-in-law next to these mounds are in Marion Kelly's 1974 Historical Survey of the Waimea to Kawaihae Road Corridor, Bishop Museum).

The ocean water used come right up to where the road is below the shopping complex.

Remembers coming down to visit relatives (uncle and family) who lived on the sand. The beach was on the Spencer Park side of the bay. That's were a lot of the houses in Kawaihae were located. Came down from the ranch during the weekend to stay with relatives.

In the morning the aunty would go out on the sand all the way out to where the breakwater is now. She would go out during low tide and would walk out as far as the breakwater. She would go out early in the morning just before the sun rises to catch crabs. That's what was for breakfast — with *poi*. Looked forward to that every weekend.

Relatives from Kawaihae are Louie Tavares and children, his wife was an Akau. He and dad and Bill Akau are all second cousins.

The road from Kahua Ranch to Kawaihae was dirt road. It was the path the cowboys used to bring down the cattle for shipping. Dad used to haul molasses for the cattle, and I used to come down with the truck with him.

There was a hall in the front of where the fish market is now. The building was called Polihale — the house of gathering. It was a house where people could get together. The people from the mountain would gather in the house and exchange food. The people from the mountain would bring taro, potato, vegetables and the fishermen would bring in fish. This place is called Polihale because of that.

When horseback riding while living in Kahua, saw evidence of settlements—stone walls, enclosures. Of the enclosures, the old ranch hands would say this or that family used to live there.

The majority of people in Kawaihae were fishermen. Mostly, canoes at that time, eventually the outboard came in.

There used to have ‘*ele*‘*ele* and *waewaeole limu* by Mailekini. Not anymore, because of the silting. Brother used to gather for consumption. ‘*A*‘*ama* crab used to be plentiful, not anymore. There were not as many *kiawe* trees, in pictures of the old Kawaihae you don’t see any *kiawe*, only coconut trees.

MARTIN IKUA PURDY, SR.

Wife Doris Johnson Purdy and son Leslie Purdy participated in the interview.

Born on Kauai, and raised on Maui at ‘Ulupalakua Ranch. Worked as a cowboy since age 17. Came to Waimea at 31 to work as a *paniolo* for Parker Ranch and for 30+ years.

Father was Ikua Purdy who was born in Waimea and also worked for Parker Ranch. Mother was Keala Margaret Napuupahee.

Drove cattle down to Kawaihae and out to the ships. They left with the herd before sunrise from Waimea. He rode up front at times to warn oncoming cars of the cattle herd on the road. Sometimes, the cars did not stop because they thought they would be held-up and caused the cattle to scatter and they had to chase them and round them up.

Down at Kawaihae three of the *paniolo* would drive about 10 cattle at a time into the water and out to the ship.

Took the family down to Kawaihae almost every weekend (leave Friday, come back Sunday). Usually, camped at Spencer Park or the Parker Ranch Beach (Mauna Kea Beach). Would walk the shoreline with sons and throw-net, gather salt and ‘*opihi*. What was caught was what was eaten while at the beach.

Now, son Leslie takes his family from Waimea to Spencer or the small boat harbor at Kawaihae for the day of swimming and fishing. Laments the fact that areas to camp, fish, and swim are getting increasingly less and difficult to access.

Regarding the ferry: In a way it will be like the old times with the ocean transportation.

MANUEL (MANNY) VEINCENT

Born in Hilo, moved to Waimea 40 years ago.

36 years as coach of the Kawaihae Canoe Club. The club maintains 15 canoes (two of which are koa canoes) and has a membership of approximately 200 paddlers. Approximately 3,000 paddlers have been coached during the 36 years.

The paddlers come from Kawaihae, Waimea, Honoka'a, Waikoloa, and Kohala. Approximately half of the paddlers are of Hawaiian ancestry.

Responsible for the building of the koa canoes. Spent a week in the koa forest to select the tree in the Hawaiian tradition of assess the qualities of the tree. Hawaiian ritual blessing and ceremony were observed in felling and building the canoes. Uses the construction of the canoe as a tool to educate the paddlers on canoe building and other aspects of Hawaiian culture. Two *koa* canoes were lost in the 1982 hurricane.

Teaches the cultural aspect of the canoe and paddling. Impart Hawaiian traditional values to paddlers as well—discipline and respect for the land and ocean. Learned about Hawaiian traditions from parents and grandparents.

Teaches canoeing to Hawaiian Preparatory Academy and Kanu o ka 'Āina students in addition to club paddlers. Paddlers are taught to respect the canoe in minute detail. All paddlers know how to rig the canoe in the traditional manner.

The outrigger canoe is historically Hawaiian. The design is traditionally Hawaiian. It moves with the sea and doesn't resist it.

Paddling is a means to perpetuate the traditional sport of out rigger canoe racing and to promote the culture.

Regarding the Superferry:

1. Concerned about the possibility of increased homeless. The ferry may encourage the homeless to move to the Big Island, especially to the Kawaihae area. This would increase use of resources and may increase crime rate. The canoe club has been at Honouli Beach for 36 years and have had no problems with their equipment being stored in the open on the beach. It has been a *pu'uhonua*, refuge or safe haven.

2. Concerned about possible regulations which may be imposed on the club. They launch from the mouth of the bay, close to Pier 1. What distance do they have to maintain from the ferry. Is there a buffer zone regulation.

APPENDIX E

INPUT FROM PUBLIC MEETINGS ON THE PROPOSED STATE-WIDE SUPERFERRY

Response	Comments
Kona	I have a few pros and cons to state on this issue. Pro: include cost effective traveling for local travelers and families. For our vehicles to travel with us to Oahu without cost of a rental car. As far as socioeconomics crime and drug trafficking need to be regulated. No Drugs! In Hawaii! Cons: Parking and vehicle routes need to be drafted to regulate traffic overflow and not to affect our near Kawaihae (Puʻukoholā) heiau preservations and finally how will the Superferry operation manage overflow and cancellation of our traveler and their safety.
Kona	I do not care what these people say - But I agree in having the Superferry run. Because I think it really helps families in taking their cars with them instead of renting a car. I think it is good to have the ferry run in Kawaihae - go - go - go *** Good-Luck
Kona	Hawaii Superferry's Whale Avoidance Policy relies primarily on night vision binoculars/ goggles in the hands of two observers. The problem: there are many moonless, dark nights when Hawaii Superferry won't see whales in time to avoid them. As the Hawaiʻi Island alternate member on the Sanctuary Advisory Council, I participated in a demonstration of Superferry's night vision binoculars. I have followed this matter carefully as I am an engineer who has been involved in field tests of night vision equipment for many years. To avoid whales at 35 to 40 knots, whales must be reliably identified at 1,000 yards, either daytime or nighttime. Even the most advanced (Generation 4** *)night vision binoculars require some moonlight to see even high contrast targets at 1,000 yards. A high contrast whale will be moving or spouting. A whale at rest and not spouting will be very difficult for the observer to detect at 1,000yards, even in optimum light conditions, e.g. full moon. The night vision binoculars will be of no use to see whales at 1,000 yards for several days either side of a new moon or when overcast hides the moon. Even on moonlit nights, the moon is only in the sky for a portion of the night. Four days after the full moon there would be no moon between sunset and 10 PM and no visible moon rise earlier enough until at least four days after the new moon and then it wouldn't be more than a sliver for a week and a half Night visions binoculars are useless during these times, unable to see 1,000 yards. While Hawaii Superferry has additional night vision equipment on board, including the Night Navigator 8540, they have not disclosed expected performance information that would allow anyone to judge whether any of this can reliably see a whale at 1,000 yards. Instead they continue to depend on two men with night vision binoculars. From the above it is clear that Hawaii Superferry's night vision capabilities need to be assessed in connection with the Environmental Impact Statement. Belt Collins should engage skilled sub-contractors to: 1) Confirm that night vision binoculars will be of no use to see whales at 1,000 yards for several days either side of a new moon or when overcast hides the moon. 2) Evaluate additional night vision equipment on board. 3) Determine whether the additional night vision equipment on board will be able to see whales at 1,000 yards any better than the night vision binoculars. Hawaii Superferry should only go its maxim urn speed when there was sufficient light to reliably see whales at 1,000 yards with night vision binoculars. On other nights they should go 13 knots, a speed relatively safe for whales.

Kona	Number 1. Act 2 is illegal and unconstitutional. Number 2. The EIS that Belt Collins will prepare is also illegal and unconstitutional. Number 3. I hope that legal action will eventually straighten out this mess and will force the Superferry to suspend operations until after an EIS has been prepared. In the meantime, I am concerned that the Superferry may soon return to illegal operation and will again be a threat to marine mammals. Belt Collins should require that instrumentation be installed to detect collisions by the Superferry. First, I would like to express my complete support for the letter submitted by Dr. Alex Leonard to Senator Suzanne Chun Oakland. Dr. Leonard can not be here tonight. His letter pointed out that the Superferry will hit and kill whales if it is permitted to travel at speeds greater than 13 knots. However, most whale strikes are not likely to be observed. Dr. Leonard recommended that cameras and other devices be installed in the Superferry's bows to continuously record the bow of the ship when it is in transit and, hopefully, to detect whale strikes. I would like to elaborate on and slightly modify Dr. Leonard's recommendations. 1. The other devices would be in the form of accelerometers and hydrophones. One or more of each would be mounted on each bow - probably just below the waterline. Both devices would put out electrical pulses at the time of a collision. These signals would be run into a computer and continuously recorded on an external bard drive. 2. The cameras would be video cameras which would probably be pointed straight down. To save storage space on the external hard drive, the recorded video signal would be saved for only a few seconds before and after either the hydrophone or accelerometer records a signal indicating a possible collision This would require some clever electronic circuitry -but it should not be difficult to accomplish. 3. The above detection system might not work at night -even with a very sensitive video camera. However, it can be made to work at night by installing long fluorescent light tubes running down each pontoon -both above and below the water line. The tubes must put out enough light to extend in front of the bow waves. This will permit the video cameras to see and identify a whale or other large body shortly before it is struck by a pontoon. 4. The external hard drive on which potential collision data will be recoded should be periodically analyzed by an independent contractor. Precautions must be taken to prevent Superferry personnel from gaining access to the hard drive because I would expect them to destroy collision data and then claim that the detection system had malfunctioned. The above 4 recommendations are cone only with detecting collisions -not avoiding them. Collisions could be also be detected by low-intensity high-frequency sonars placed under the water line of both bows. The sonar sound levels must be low enough so as to not injure whales. These sonars could be used in place of- or along with -video cameras.

Kona	First and foremost, I am here to state that I believe this EIS is unlawful and invalid because: 1. Act 2, under which this EIS is being conducted, does not take precedence over the National Environmental Policy Act 1 (NEPA); 2. Act 2 does not allow anyone to challenge the resulting document in court; 3. The Hawaii Superferry project and its secondary impacts should actually be part of the statewide harbor improvements EIS, otherwise "segmenting" is taking place. However, in light of the fact that there are those who seek to overturn laws for their benefit, I will take this opportunity to voice the concerns I have about Hawaii Superferry coming to Kawaihae so that they are part of the record. 1. Act 50, SLH 2000 (Cultural Impact Statements) Act 50 is a law passed by the 2000 Hawai'i legislature that requires cultural impacts be analyzed during the state's environmental review process. This protects Native Hawaiian traditional and customary practices. Please make certain that the EIS addresses cultural impacts, including fishing, paddling and surfing. 2. 1995 Kohanaiki Case The court said the state has an obligation to protect the traditional and customary rights of Native Hawaiians and it recognized that unique conditions are placed on the rights of landowners in Hawai'i. Justice Klein wrote, "Within the scope of their authority, 'all agencies in Hawai'i must ensure that their rules comply with the objectives and policies of the CZMA (Coastal Zone Management Act), HRS 205A, etc. and requires agencies to give 'full consideration to cultural and historic values as well as the needs for economic development f when implementing the objectives, policies, and SMA (Shoreline Management Area) guidelines set forth in the CZMA." In other words, administrative agencies are there to protect the rights of the people; not of corporations. Also, the right of resource management outweighs the right to make money. This decision says that Native Hawaiians have legal "standing" to raise issues relating to subsistence, cultural and religious practices. Please make certain that the EIS addresses the protection of traditional and customary rights of Native Hawaiians. I understand that Kanu o ka 'Aina uses an area in or around Kawaihae Harbor for cultural studies -how will this be affected? Also, what will happen to the YMCA in the area? In a paper titled "Guidelines for Assessing Cultural Impacts" from 1997 it states: "In scoping the cultural portion of an environmental assessment, the geographical extent of the inquiry should, in most instances, be greater than the area over which the proposed action will take place. This is to ensure that cultural practices which may not occur within the boundaries of the project area, but which may nonetheless be affected, are included in the assessment. Thus, for example, a proposed action that may not physically alter gathering practices, but may affect access to gathering areas would be included in the assessment." It goes on to talk about how an ahupua'a is usually the appropriate geographical unit to begin an assessment of cultural impacts of a proposed action. Areas by the harbor sometimes flood during heavy rains. How will construction that will be taking place at the harbor affect the possibility of flooding? In addition, it has been pointed out that in order to let the water in Pelekane Bay flow properly so that it does not create silt, proper drainage must be addressed. Bill Akau has been saying this for at least four years, and a paper by Brian N. Tissot "Changes in the Marine Habitat and Biota of Pelekane Bay, Hawai'i Over a 20-Year Period") commented on this as far back as 1977. Still, nothing has been done. How will this be addressed before any construction takes place?

	3. HRS 205A Coastal Zone Management Program This is a detailed document addressing a number of issues, including the need to "Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems" (How will dredging affect this; how will backwash from Hawaii Superferry's engines affect this; how will noise from Hawaii Superferry's engines affect this?, etc.); the need to "protect beaches for public use and recreation"; and promoting "the protection, use, and development of marine and coastal resources to assure their sustainability." Please make certain that all aspects of HRS 205A are addressed. 4. The EIS should not address only Kawaihae Harbor -that is segmenting. Hawaii Superferry will affect the north boat harbor area which will impact fishing, surfing and paddling and other Hawaiian cultural activities, as well as swimming and boating -activities enjoyed by local families. It will also affect traffic in the harbor area because there are only two lanes -one for ingress to and one for egress from the harbor. Please address how these activities will be impacted and how traffic will be controlled. 5. The transfer of invasive species onto our island is a grave possibility, as is the transport of cultural resources. Please address the steps that will be taken to mitigate both problems. It is necessary to have qualified, trained inspectors at each port. And they should have to perform "inspections"; not "screenings". Having HSF employees doing the inspections should not be allowed. Increased traffic will increase the use of our roads. How will traffic be handled at the intersection of Kawaihae Rd. and Akoni Pule Hwy., and how will traffic be handled at the intersection of Kawaihae Rd. and Queen Ka'ahumanu Hwy.? Also, how will the condition and maintenance of our roads be addressed since increased traffic will cause additional wear and tear on them? 6. Queen Emma land sits on or near an area of Kawaihae Harbor. How is this being addressed with regard to Native Hawaiian rights as well as any roads or access ways that will be needed? 7. Will the shark heiau also be affected? 8. Kawaihae is well known as an area where whales and dolphins are found in large numbers. What is being done to mitigate collision with these mammals? 9. With increased visitors, how will our police, fire, parks & recreation personnel be impacted, and how will those impacts be addressed? 10. Pu'ukohola Heiau is in the Kawaihae Harbor area. Will there be any impact on this National Historic site? 11. How will the barge and ferry affect the north small boat harbor? What will happen to those who use this area for fishing, paddling and surfing? 12. In addition to other "challenges" noted in the Hawaii Harbors Modernization Plan Fact Sheet, an increase in cargo container volume by 2010 and lack of adequate space for harbor-user operations are two that are mentioned. With Hawaii Superferry being at Pier 4, will this hamper the freight business and storage for Hawaii's shipping companies, i.e. could this space be better utilized for our shipping companies? 13. In a document obtained through the Freedom of Information Act, it states, "...They have no good predictors of conditions at this time, and expect to have both unnecessary cancellations and cancellations after the HSF has left Honolulu. This is critical issue for the analysis. Tom Smith has been told by DOT that they feel the 3 ft. criteria are completely unrealistic. IF we are to use alternative criteria, how do we arrive at it, and how do we evaluate the uncertainty of those criteria?..." We've seen the problems encountered in Kahului Harbor. What will you do to insure the safety of passengers and vehicles during rough seas, and what compensation is planned for passengers who experience cancellations?

Kona	Hawaii Superferry's Terry O'Halloran ignored requests to have underwater noise measurements made to determine how fast Hawaii Superferry could go without causing behavior harassment to various marine mammals. Fortunately, Dr. Lee Tepley and Don Erway located a peer-reviewed technical paper with relevant data on underwater noise ***. From data on the Condor Express, Hawaii Superferry will likely harass humpback whales when they get closer than 1,000 yards. Behavior harassment is any act which has the potential to disturb a marine mammal in the wild by causing disruption of behavioral patterns, including, migration, breathing, nursing, breeding, feeding, or sheltering. This Level B harassment is unlawful under the Marine Mammal Protection Act. It is also possible that the noise level from the Hawaii Superferry could be high enough to cause direct hearing damage to various marine mammals (Level A harassment). This follows from observations by Dr. Michel Andre in the Canary Islands on dead Sperm whales. He found direct hearing damage. It is not known if this was caused by fast ferries (similar to the Hawaii Superferry) or by some other noise source – but there are many fast ferries in the waters of the Canary Islands. From the above it is clear that underwater noise measurements need to be made and evaluated in connection with the Environmental Impact Statement. Belt Collins should engage skilled sub-contractors to: 1. Measure the underwater noise level of Hawaii Superferry at least 3 speeds – 37 knots, 24 knots, and 13 knots. 2. Determine what speed Hawaii Superferry can safely travel without exhibiting Level B harassment from noise. 3. Determine how close Hawaii Superferry can come to a whale without causing hearing injury from noise. 4. Evaluate marine mammal harassment by noise at different distances from Superferry's course for various species. These measurements and evaluation need to be made soon in order to minimize the noise impact by establishing a safe speed of the Superferry with respect to noise. P.S. We would be happy to suggest subcontractors for underwater noise.
Kona	Input: I am writing because I am concerned that you are considering allowing the Super Ferry to operate while the EIS is being prepared. It is precisely the need for an EIS prior to the operating of the Super Ferry that is at issue. There is significant concern about the environmental impact of the Super Ferry on the islands. There is a valid concern that the Super Ferry will cause harm and potentially death to the whales that give birth in the islands. There is valid concern that the Super Ferry will promote the spread of invasive species, such as mongoose; fire ants; coqui frogs and other harmful species. We must learn how to deal with the environmental problems we have already created on the islands before we exacerbate these issues. I implore you to stop the Super Ferry from operating until and EIS can be prepared. If the Super Ferry is allowed to operate during the EIS process, the potential environmental damage of the Super Ferry could begin.

Kona	In February, my husband and I flew to Maui, planning on taking the Superferry to Oahu. The ferry was delayed for maintenance, so we flew to Oahu, and, finally, were able to make a roundtrip to Maui and back. We loved it! We look forward to taking the Superferry in and out of Kawaihae for many years to come. (1) Thirty years ago, SeaFlights interisland schedule included trips between the Islands of Hawaii and Maui. Such a schedule for the Hawaii would Superferry increase the ferry's popularity with residents and scenic riders, adding viability and return for the State's taxpayers who are invested in the ferry's success. **Could the ferry be required to include at least a weekly trip between the Islands of Hawaii and Maui?** (2) For years, the State has funded increased facilities at Kawaihae Harbor, including security fencing, pavement for the striping, and pier improvements, for the benefit of Matson, Young Brothers, and other ships, without triggering the EIS procedure. The military has repeatedly come into Kawaihae Harbor, with a ship similar to the Superferry, using existing harbor facilities with one major exception: the ferry used by the military carried its own ramp. The-Act 2 EIS Description of the Action and Alternatives states: "Improvements to the existing pier would include the installation of a floating barge and ramp system to facilitate loading and unloading of passengers, vehicles, and cargo; and installation of fendering and mooring systems, shoreside power to the barge and ramp systems, security fencing, and pavement striping necessary to allow operations to occur in a safe manner." Kawaihae is one of the windiest harbors in Hawaii, as well as being subject to surf swells from the northwest direction. Through the years, barges have broken loose and caused damage The floating barge and ramp system for the loading and unloading of ferry passengers, vehicles, and cargo will be problematic during times of surf and/or wind, expensive to maintain, and, at times, dangerous, even when the ferry is elsewhere or hauled out. Kawaihae does not have a tug, so, when one is needed, as has happened in Kahului Harbor during surf to protect the barge from pounding the pier and the ferry, a tug will have to come from Hilo. The Hawaii Superferry chose a ramp-less ferry design to avoid the extra weight, allowing the ferry to carry more payload, although the difference is probably only a truck or two. The ramifications of that one decision have been enormous. If the ferry did not require a "floating barge and ramp system", "shoreside power to the barge and ramp system", the extra "fendering and mooring systems" required by the barge, and a tug necessary during surf, the State would have far less to construct and maintain. In fact, the excessive State funding and the resulting EIS might have been necessary. **Could the second ferry, which is scheduled to serve Kawaihae, and is still under construction, be required to carry its own ramp?** Thank you for this opportunity to comment.
Kona	There are lots of users of Kawaihae Harbor, including commercial, fishing and industrial. There are more to come soon, including extensive industrial. Visitors are coming to the harbor and the island for the first time. **Is the harbor something we will have to make excuses for or be proud of?** Plans call for industrial uses spreading up the hills, which are presently the only redeeming features of the area. **Is there any way the EIS can help insure good development for our visitors and residents?**
Kona	Because night vision binoculars will be no use to see whales at 1,000 yards except for a full moon (see attached) Hawaiian Superferry should not generally travel at night unless radar can reliably see marine mammals at 1000 yards. It therefore becomes all the more important to know the limitations of radar.

	The Dept. of Transportation is still listing radar as a way to avoid marine mammals by 500 yards, in your presentations seeking public comment for the Hawaiian Superferry EIS. To accomplish this, Hawaiian Superferry's radars will need to positively identify marine mammals at 1000 yards and detecting them at longer distances. Dr. Joe Mobley informs me that he has ---" been part of an R&D team looking at the feasibility of using shipboard radar to detect great whales since 2001. Our experience is that it works in good to ideal conditions (Beaufort seastate 1-4), but its reliability is unknown beyond that point [simply because we haven't tested it in anything worse than Beaufort 4)." Normal trade conditions in Hawaii with windspeeds of 17-20 knots would be expected to produce sea state in excess of Beaufort 5 and winter storms produce much higher seastates. Radar should not be relied upon as a method of detection in rough seas. I am also concerned about the propagation of Hawaiian Superferry's radar signals in heavy rains. Positively identifying marine mammals at 1000 yards and detecting them at longer distances may be Impossible. *I request an operational evaluation of the* capabilities *of Hawaiian Superferry's* radar as part of the EIS process being conducted by Belt Collins.
Kona	I attended the public informational meeting on the 27th March and I personally feel that 5 business days to submit my written comments on the Draft EIS is insufficient. I would have liked more time to study the DEIS to state my comments intelligently. Therefore, my comments are brief and not too specific. As a life-long resident of the Big Island, I'm fully aware of the benefits a large-capacity ferry vessel would present; however, the Kawaihae Harbor should be developed and improved beforehand to accommodate this new vessel. Knowing the problems of a floating barge and ramp system; which the Kahului Harbor experience, would it not behoove the DOT to make the necessary modifications? I would like to see a stationary type of on and off loading ramp similar to the ferry system in Seattle, Washington. In closing, the location of the March 27th meeting should have been conducted in the Kawaihae community NOT IN Kailua-Kona. That community would be impacted the most and would be able to participate in this much needed public debate of a large-capacity ferry vessel at Kawaihae Harbor. Mahalo nui loa for the opportunity to submit my comments.
Kona	On 3/17 I only mentioned the last time I witnessed whales unexpectedly surfacing near a whale cruise boat. Out of appx 34 trips this happened at least 9-10 times (once 15 feet side of bow.) Are you getting input from whale cruise boat captains? Boat speed is a serious issue – whale/boat collisions happen every year. Are you working with NOAA? They have the power to impose a speed limit on boats within 200 miles of land to protect endangered species. I doubt the superferry wants a reputation of being a baby whale killer. Next meeting – PUBLICIZE it!!
Kona	I am concerned Kawaihae does not have the needed infrastructure to accept the ferry. Traffic flow, no sidewalks for pedestrians when walking to shops. Piers were not repaired from damage done by earthquake. Where will the ferry dock? No bathroom facilities or waiting area for ferry passengers, what about car rentals? I am also concerned about the speed at which the ferry goes (37 knots) and striking a humpback whale, Kawaihae is near a marine sanctuary.

Kona	Thank you for coming to Kailua-Kona on March 27, 2008. <u>Meeting Location</u> I was disappointed this meeting could be not held closer to Kawaihae where the discussion is all about. Many of the Kupuna and long time residents of Kawaihae do not drive at night; surely not 35 miles away from home. Further, the Kupuna would probably do verbal testimony and not written ones. These are probably the first issues that need to be addressed. <u>Alternative Plan/Recreation Impacts</u> I would oppose utilizing the Alternative Plan of (interim or otherwise) use of Piers 1 and/or 2 for use by the Super Ferry. 1) Occasionally, there is pandemonium at the access to and from Kawaihae Road and Akoni Pule Highway. 2) Public use of the north-Small Boat Harbor for community recreational uses would be overly imposed upon. 3) The south-Small Boat Harbor is not yet constructed so the small boat owners that would use the south-Small Boat Harbor, currently wash down their boats at the north-small boat harbor and they will also be affected. The County manages a public park with bathroom facilities. These facilities are used all day long by a wide range of park users. The ferry needs to construct their own facilities at the proposed security area on the coral flats. <u>Ferry</u> I was quite interested to see the ferry on their trial run to Kawaihae. This ferry was moving awfully fast compared to other vessels that pass by my home. It was faster than the fishing vessels, faster than the barges and almost came to a halt when they came upon the Coast Guard Cutter who was waiting for the ferry in front of my subdivision. That speed is definitely too fast for these waters. During Whale season, 1) the ferry seems to have used the same area as the dolphins and the whales. The ferry should use the route that the barges use because the ferry cruises too close to the shoreline that I could see someone walking the across the boat. If I can see people in the boat; people on the boat can see me in my home. During the day many families are either gone to work or gone to school. The neighborhood watch program would not work if someone from the boat came cruising through our subdivision. During winter weather, the winds are quite strong in Kawaihae and there have been times when the cargo shipment has to sit in open waters waiting to enter the harbor. I would be upset if the ferry parked in front of my subdivision waiting to enter the harbor. My request would be 1) the ferry needs to slow down; 2) the ferry needs to use the same approach to the harbor as the cargo ships when approaching the harbor; 3) the ferry should not be allowed to safe harbor in front of the subdivisions. <u>Communication</u> The opposition to this location was conveyed to Barry Fukunaga and Mr. John Garibaldi when they attended the community meetings in Kawaihae. Barry Fukunaga's attitude was intent on

	"telling the community" and no further discussion; has created such a disregard and distrust toward the Lingle Administration. Hopefully, the completion of ACT 2 will repair some of the sensitivity of this community. Education Per my testimony at the first meeting; I think education about this community is primary. I think that adding the on-board media for users of the Ferry prior to landing in Kawaihae is a great way to inform people of the historical and cultural background of this community. My concern is when the ferry users leave the harbor; there is no signage indicating what the on-board media is talking about. Kawaihae has been a rural country until now. Even the Ironman Triathlon participants pass through the town; not park and visit. The community has not caught up with the overwhelming prosperity that is being dropped on Kawaihae. Confiscation Process It is interesting to watch the TV news say that banned items will be confiscated. What happens then? Opihi and plants are living organisms. Is it thrown away? Hawaiians are trying to propagate the Hawaiian food item; and the ferry is throwing it away? Plants can be flown island to island without soil; what happens to the plants? Kawaihae does not have an inventory storage location to keep these items, where does the DOA do with these items? Also, will there be a list of banned items in the news media; at the inspection point, etc. Harbor Facility Kawaihae has only gas station in the community which is regularly busy. Adding to this traffic and at this location and availability of fuel seems over whelming for the community. Harbor Access Access for the ferry is currently planned to use a shared access with the Military and the south-small boat harbor users. That means the traffic on Kawaihae Road will be backed up because of the left-turn/right-turn into the harbor. Perhaps if the traffic was allowed within the harbor during inspection; the rest of the traffic could continue on Kawaihae Road. This problem is already prevalent with the truck users entering the harbor at a different gate entrance. Until such time as the Kawaihae portion of the By-Pass road is built, there needs to be traffic directors on the Kawaihae Road; as well as on the harbor. Hopefully, this will be police officers so any conflicts will be handled directly. It will be very appreciated by the community, if the traffic is not allowed to pull off the Kawaihae Road and onto the mountainside shoulder at the ferry access into the harbor. Directly across the street is a known cemetery; and a larger unmarked cemetery. People trying to pass on the shoulder of Kawaihae Road may damage the cemetery perimeters. Historic Sites The most predominant feature the ferry users will view is the Pu'ukoholā National Park. In the park is the Pelekāne Bay. This Bay has become very polluted with silt and sedimentation caused mostly by the blasting used to create the Kawaihae Harbor. There is a plan to create a channel from the Bay through the Coral Flats to the Harbor. When this channel is completed, all traffic will need to crossover this channel. Therefore, the ferry will become one of the partners on the Coral Flats that should be contributing to the creation of this channel to keep the Pelekāne Bay current flowing in order to keep the Bay clean. This is a unique living and historical environment that needs to be protected. Employment It is unknown if this business will hire from the Big Island. Who is hiring, what the job will be, when they can start. It seems the positions are being filled elsewhere; and no equal opportunity here.

	Inspection Process During the observation period held on Oahu and Maui, how long did it take from the time a passenger arrives at the harbor front gate; until the time the ferry leaves? A process of what will happen on the harbor is great on the paper but inspecting and accepting passengers; and inspecting and releasing-passengers seem a little longer process than the airline process. Even though the arrival and departure time hopefully is during the least impacting hours; Kawaihae already has a serious problem with the harbor area. The airlines have a citation program for banned items. I think the governments should begin creating new rules for banned items being transported by the Ferry; for the ferry company as well as the perpetrator. Environmental Concerns Kawaihae Harbor is unique in many ways. One is the configuration of the Harbor has a drainage, flood control, in an earthquake and tsunami area. There will need some improvements made for the traffic during these seasonal times. Kawaihae is known for the high wind conditions that occasionally impact everyone in this community. Three effects occur: a) Sandstorms may affect the users of the ferry and, b) Coral dust storms sometimes blow towards Kawaihae Road. Some type of watering to keep the dust down while the numbers of vehicles pass on the coral flats. 3) Any bits of trash will be carried into the air. This pollution could land in the ocean; on the highway, etc. Probably the most important environmental concern for Kawaihae is that this is a fire hazard community. There should be media, signage, and high penalties created and made known for all visitors to Kawaihae. The harbor area is where the water availability is located. Everywhere past the specific harbor area has limited water availability. For over 25 years the residents in Kawaihae have been requesting the County Water Department to identify a water resource for areas surrounding the harbor area. Having large numbers of people and unknown products enter through the harbor area (to and from the community) warrants extra protection measures from the ferry and the harbors division. Security Measures It is confusing as to how security procedures will be implemented. Historically, the community was allowed access on the coral flats. Today, a limited number of users are allowed access for specific reasons. It will be helpful to understand what other impositions will occur for these users. Thank you for allowing me to testify regarding this environmental review process.
Kona	The EIS needs to identify potential impacts on natural resources including, but not limited to: 1) Increased fishing and hunting pressure from off-island visitors. Removal of plants, rocks, and artifacts from county, state and private lands. 2) Increased camping and use of parks. The Super Ferry will result in an unprecedented change in access to the natural resources of the Big Island. These resources will be extracted by visitors. There are no mechanisms or funding in place to manage or monitor this change. The EIS needs to propose detailed, reasonable and practicable enforcement methods for mitigation/prevention. As an example, fisheries are managed by Division of Aquatic Resources (DAR) and regulations are enforced by Division of Conservation and Resource Enforcement (DOCARE). There is virtually no mechanism in place to adequately enforce fishing regulations and there is little funding to track the impacts of increased access to the aquatic resources. Changes in DAR powers and responsibilities may be needed prior to starting Super Ferry service. Off-island-user fees and regulations, including, but not limited to fishing
	licenses, launch fees, daily use fees, bag limits will likely be needed to manage the resource. These mechanisms need to be in place and not just proposed prior to Super Ferry service initiation to the Big Island.

	The EIS needs to identify potential infrastructure impacts including, but not limited to: 1) Increased vehicle numbers on overtaxed Big Island roads. 2) Increased small boat traffic at the launch ramps and in harbors. 3) Pulses of traffic surrounding Super Ferry arrivals and departures. Overtaxing understaffed Big Island law enforcement with transfer of stolen property between islands, including vehicles. As above any proposed mitigation methods need to be detailed, reasonable and practicable. For example, proposing that the Big Island build more roads or harbor facilities is not sufficient to offset traffic impacts. Funding mechanisms, such as vehicle use impact fees, need to be developed and implemented prior to Super Ferry operation. Concurrency of roads with increased traffic from Super Ferry needs to be considered The EIS needs to identify potential impacts to the environment including but not limited to: 1) Unregulated transfer of plants and animals between islands. 2) Potential introduction of non-native species such as coqui frog. As above any proposed mitigation methods need to be detailed, reasonable and practicable. Proposal of Department of Agriculture (DOA) inspections of cars is not sufficient if funding and inspectors do not exist. Further, sufficient time and facilities need to be made available to allow inspection of vehicles and cargo moving on the Super Ferry. Summary comment on the draft EIS is that it needs to include analysis of the potential impacts and detailed discussion of remedies proposed for any impacts. Remedies need to be reasonable and practicable. It will not be sufficient to propose remedies that cannot or will not be implemented.
Email	Please consider this notice for conspiracy to misappropriate tax dollars and conspiracy to defraud the government. For the record, I acknowledge only purported lawful authorization of performance of a DRAFT EIS by your conflicted firm of Belt Collins, as this is an authorization executed through the subversion of HRS 343 by an illegal special session. I would like to take this time to submit, my acknowledgment of the criminal act being perpetrated through you by the state of Hawaii and its representatives against the constitution and subsequently the people of Hawaii. Furthermore, my submittal of protest to this whole sordid affair, shall voice my invalidation of Belt Collins, Linda Lingle, Mark Bennet, DOT representatives and any and all state officials who have chosen to collaborate in these criminal acts against the constitution that they have sworn to uphold in this state of Hawaii putting them on notice. Listed below are aspects of this illegal process of which I expect to see an explanation; an explanation in extensive detail. They are numbered so that I can easily access my questions later to see that they are addressed by you: 1) First and foremost: in your draft i demand clarification of how causing irreparable harm to hawaii and environment as determined by judge cardoza is in the public interest. You have not satisfied this impact. An alternate mode of travel is not a viable explanation; as to why it is not, i am not at liberty to divulge that to you at this time.

	2) Address justification. 3) Public interest is given. Elaborate because the Oahu hearings had 0 interest. 4) This is not in the public interest because it jeopardizes the public's sustainability. 5) It will inflict irreparable damage to the islands resources and the culture which is sustained by the resources. 6) It is far bigger than you and your EIS firm. It is the mandate of the hawaii state constitution...the permission slip for the state to carry on. 7) Your understating the harm is a terroristic threat to hawaii's people and environment. 8) How is obstructing local fishermen in the public good? 9) Day passes and permission slips and scheduling of a fishing day according to superferry agenda is not acceptable for a fisherman. 10) Conditions imposed on a local fishermans freedom to go and return when he damn well pleases are not in superferrys jurisdiction, nor in the states. 11) This is an obstruction of federally protected native hawaiian rights. Please clarify and specify how you plan to skirt these laws. 12) Do you still contend that declaring opihi, imu rocks, fishing nets, etc. As contraband if brought on the superferry is an effective deterrent to resource depletion and pilfering? 13) Do you believe that hsf monitors, scouts or even experts watching for these things being brought on board is an effective deterrent? 14) Will this rule change when we sue you and the state for discrimination and fraudulent representation because these items are legal throughout the state and you have no legal right to ban them from island to island? I live right behind the harbor, and every day I see all the mess that they have down there. My father was harbor master in Kawaihae, so was my brother, William. Mr. Birnie knows that. And it's very important that I come today to speak for my birthplace. Kawaihae was a beautiful place. I also come to speak for the area in front where Halau Kukui is. Halau Kukui looks over at Mau Mai (phonetic). And in the front of Ma'u Mai, that's where all the Ali'i's and the Kings used to surf. The full name of that place is Hale He'e Nalu. You're a surfer, you know about surfing. So where else can the people come to Kawaihae and go and enjoy? When the tidal wave came in '46, the tidal wave came in from the west. You build the harbor, you block off where the natural flow of the ocean goes along the coast. So on the other side, in front of Pu'ukohola, where the fishes used to come and spawn, they used to come there and take care of business they were supposed to take. And then they go back out to the wide ocean and grow up. And then we have the fishes come in when they're big enough. Now there's nothing there. Lucky we still have some sharks that swim around, but not too many more. I don't like sharks. But Hale O'Kupuni is there. They have been there before I was born, before my dad was born, before my grandfather was born and my great-grandfather and all my grandmother's family. I don't want the Hawaii Superferry. It's going to take more of Kawaihae. Let Kawaihae be what it is so that people can enjoy it. It's my home town. Don't ruin it any more. Thank you. And it will also block off the small boat harbor on the north end. That's basically it. And the other one I already talked about, the cultural site. I can expand on 15 that later on.

	Natural resources, I would like to see a definition of natural resources. Because what you got right now don't even cover. It's very inadequate. This statement about wide range of users. Because the wide range of users -- and I think we already talked about that. People don't know about Kawaihae. And one of the things is the fiber optics. There's two fiber optic cables in the ocean. Also, for the audience, I invite you all to be sure to contact me with your issues, with your concerns, so that we can bring these issues to the table at the Oversight Task Force. I would like to say that so far the reports from DOCARE as well as the Department of Ag, it seems to me that Hawaii Superferry is doing exactly what they've been asked.