ALAN M. ARAKAWA
Mayor

GEORGE Y. TENGAN
Director

ERIC H. YAMASHIGE, P.E., L.S.
Deputy Director

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

February 7, 2006

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

Dear Ms. Salmonson:

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT (FONSI) FOR PROPOSED KAUPAKALUA WELL SITE STORAGE TANK TMK (2) 2-7-15:038, HAIKU, MAUI, HAWAII

The County of Maui, Department of Water Supply has reviewed the comments received during the 30-day public comment period, which began on December 8, 2005. The agency has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the February 23, 2006 OEQC Environmental Notice.

We have enclosed a completed OEQC Publication form, revised project summary and four (4) copies of the Final Environmental Assessment. The project summary will also be submitted to your office via electronic mail.

Should you have any questions, please call Larry Winter at (808) 270-7835.

Sincerely,

George Y. Tengan, Director
Department of Water Supply

Enclosures
cc: Tara K. Nakashima, Munekiyo & Hiraga, Inc.

2006-02-23 MA FEA KAUPAKALUA WELL SITE STORAGE TANK.

Final Environmental Assessment

PROPOSED KAUPAKALUA WELL SITE STORAGE TANK

Prepared for:

**County of Maui,
Department of
Water Supply**

February 2006

MUNEKIYO & HIRAGA, INC.

Final

Environmental Assessment

PROPOSED KAUPAKALUA WELL SITE STORAGE TANK

Prepared for:

County of Maui,
Department of
Water Supply

February 2006

MUNEKIYO & HIRAGA, INC.

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Executive Summary

Applicant:	County of Maui Department of Water Supply
Type of Document:	Draft Environmental Assessment
Legal Authority:	Chapter 343, Hawaii Revised Statutes
Agency Determination:	Finding of No Significant Impact
Applicable Environmental Assessment review "trigger":	Use of County lands and funds
Location:	TMK: 2-7-15:38
Accepting Authority:	Department of Water Supply 200 South High Street Wailuku, Hawaii 96793 Contact: Larry Winter Phone: (808) 270-7835
Consultant:	Munekiyo & Hiraga, Inc. 305 High Street, Suite 104 Wailuku, Hawaii 96793 Contact: Tara Nakashima Phone: (808) 244-2015
Project Summary:	To meet water system service requirements for the Haiku region of the island of Maui, the County's Department of Water Supply (DWS) proposes the installation of a pump control and water storage tank at the existing Kaupakalua water storage tank site. This new 300,000 gallon storage tank will supplement storage capacity currently provided by the existing 200,000 gallon tank. The new tank will be of reinforced concrete or stainless steel construction, with a diameter of approximately 53 feet and a height of about 23 feet. Related site improvements, such as grading, asphalt paving around the tank and perimeter fencing are also proposed.

Chapter I

Project Overview

I. PROJECT OVERVIEW

A. BACKGROUND

The County of Maui Department of Water Supply (DWS) proposes the installation of a water storage tank adjacent to its existing Kaupakalua well pump control and water storage tank. See Figure 1. The existing tank site, encompassing approximately 0.7 acre, is located in the Haiku region of Maui on lands identified as Tax Map Key 2-7-15:38. The proposed second tank will be situated on this tax parcel. See Figure 2.

The existing tank site, constructed by a developer and dedicated to the DWS in late 2000, provides water storage for the Peahi, Holokai and Ulumalu areas and pump control up to Kokomo. The 200,000 gallon capacity of the existing tank is not adequate to meet the storage needs of the service area, as population growth in the region has led to increased demand on the water infrastructure system. It should be noted that the design of the existing tank provided for the future installation of a second tank. Pump and piping systems were also designed to accommodate a future tank, thereby minimizing system integration costs.

The project site falls within the State Land Use "Agricultural" District and is designated for "Agricultural" use by the Paia-Haiku Community Plan. County zoning for the property is "Agricultural". The proposed action is a permitted use under the foregoing land use classifications.

B. PROPOSED IMPROVEMENTS

The new tank, which will supplement water storage and pump control service to the same areas, will have a storage capacity of 300,000 gallons. It will be a circular, cast-in-place, reinforced concrete or stainless steel structure, with a 53-foot diameter. See Figure 3. The tank height is approximately 23 feet. Attendant improvements include site grading to

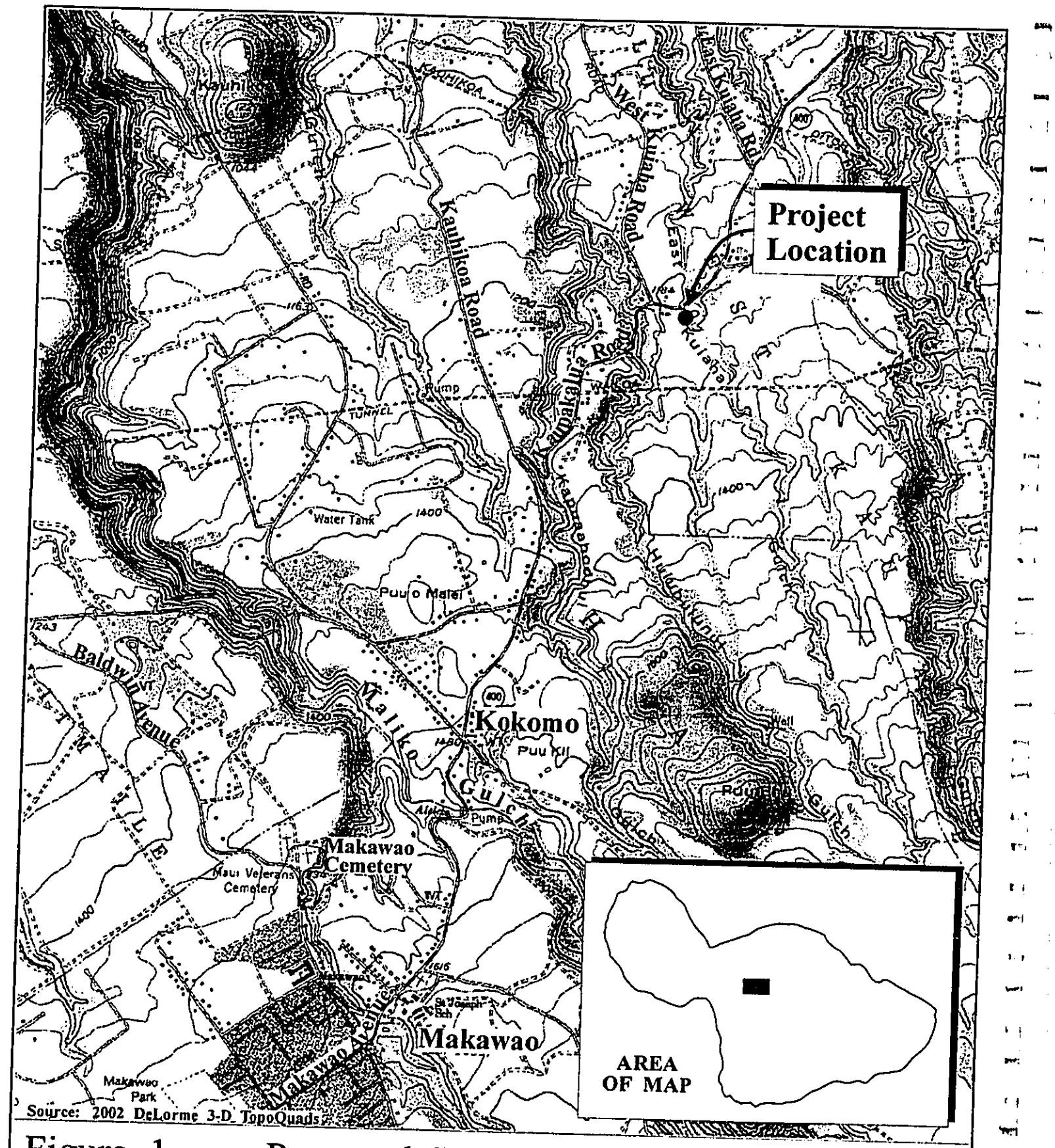

Figure 1

Proposed Kaupakalua Well Site Storage Tank

Regional Location Map

NOT TO SCALE

Prepared for: County of Maui, Dept. of Water Supply

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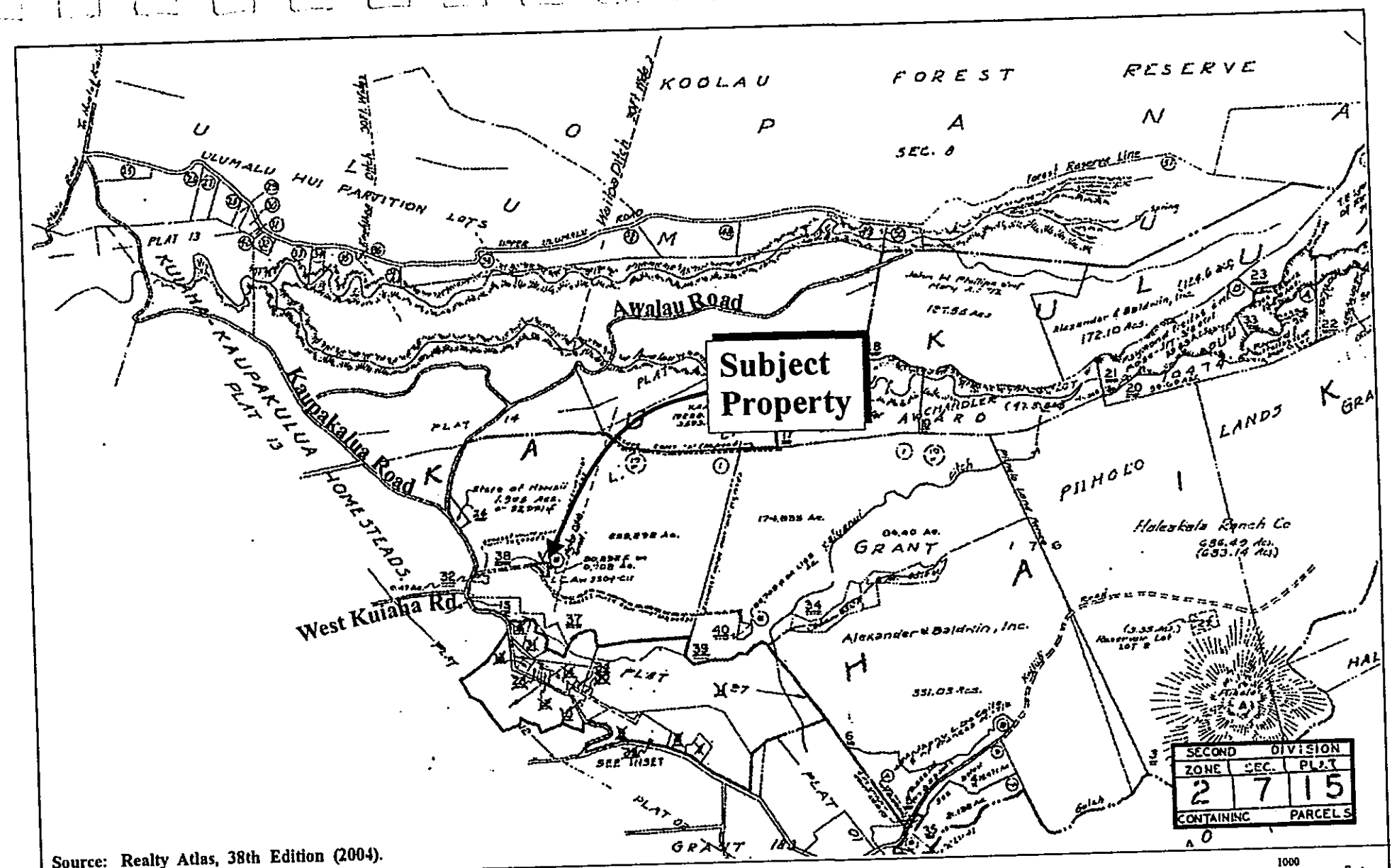

Source: Realty Atlas, 38th Edition (2004).

Figure 2 Proposed Kaupakalua Well Site Storage Tank

Site Location Map

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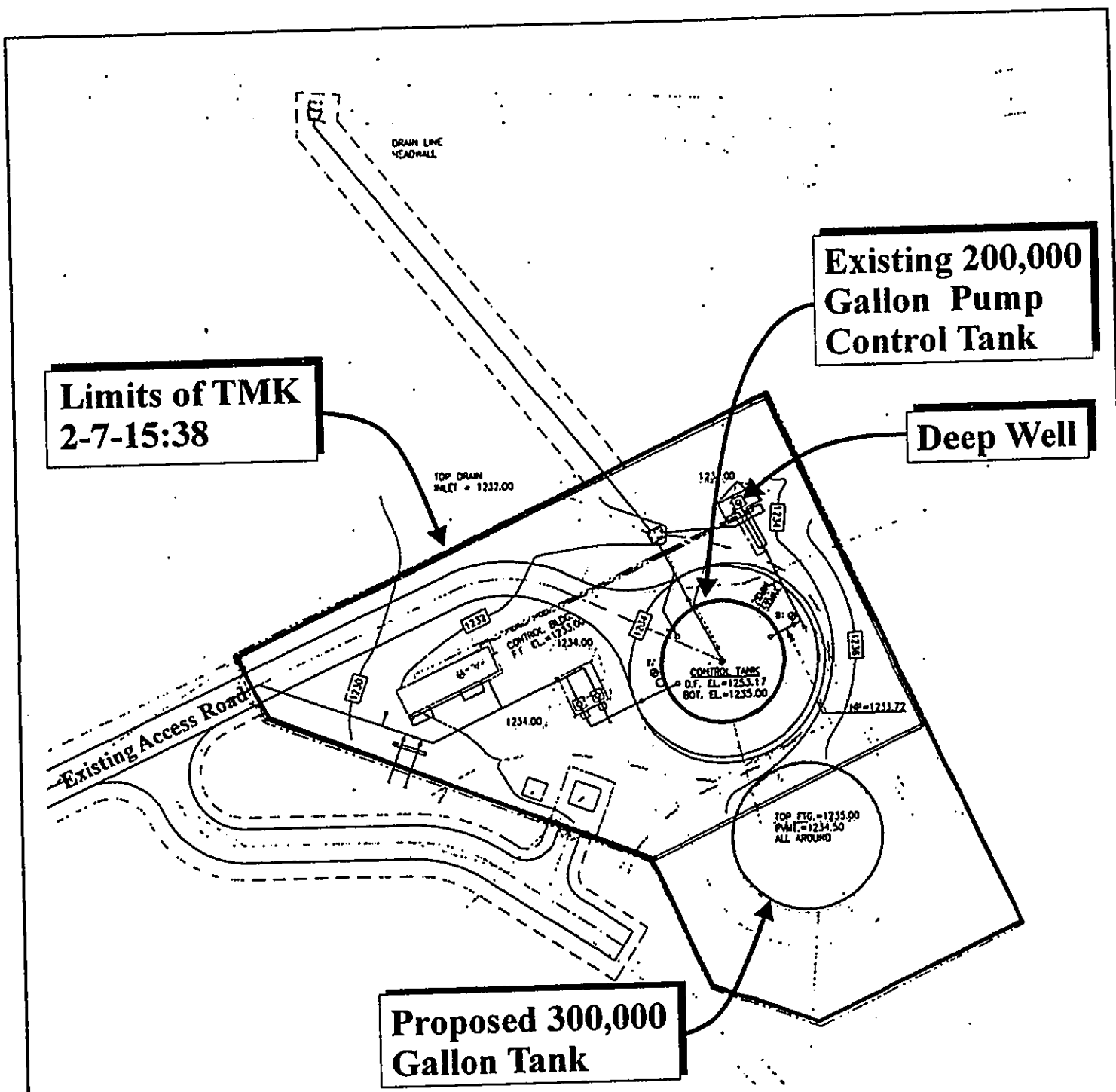

Source: Austin, Tsutsumi & Associates, Inc.

Figure 3 Proposed Kaupakalua Well Site
Storage Tank
Plot Plan

NOT TO SCALE

Prepared for: County of Maui, Dept. of Water Supply

MUNEKIYO & HIRAGA, INC.

establish a tank slab elevation of 1,235 feet.

It should be noted that the Department of Water Supply is coordinating with Alexander & Baldwin, the adjacent property owner, to secure a right-of-entry, to perform accessory grading work on their property and to facilitate construction of the tank pad. The adjacent property is currently vacant and landscaped with pasture grass. Other improvements include asphalt paving around the tank for maintenance access purposes, and installation of a 6-foot high perimeter chain link fence. Related mechanical improvements will also be made onsite to ensure that tank operations and controls are properly integrated with the existing system.

The estimated cost of the proposed project is $1.25 million. See Appendix "A". Construction is anticipated to begin in July, 2006. Construction duration is estimated to be approximately 9 months.

C. CHAPTER 343, HAWAII REVISED STATUTES REQUIREMENT

County lands and funds will be used to implement the proposed new tank. As such, an environmental assessment is required in accordance with Chapter 343, Hawaii Revised Statutes.

Chapter II

Affected Environment, Potential Impacts and Mitigation Measures

II. AFFECTED ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES

A. LAND USE

1. Existing Conditions

The subject property is situated in Haiku, Maui, a community that continues to maintain its rural residential and agricultural character. Rural single-family residences lie west of the property. Hanzawa Store is located less than a mile east of the site. Land surrounding the subject property in the immediate area is vacant. See Figure 4. There is a gulch that runs east to west about fifty feet north of the site. Access to the tank property is provided via an existing driveway that extends west from the existing tank to Kaupakalua Road.

2. Impacts and Mitigative Measures

The proposed action involves the installation of a well site storage tank at an existing County water storage tank site. The tank site is located in a relatively remote area, with the nearest residential properties located approximately 1,000 feet west of the subject property. Because it is located away from Kaupakalua Road, in a remote agricultural area, the addition of a new water storage tank at this location is not anticipated to have an adverse effect on surrounding residential uses.

B. CLIMATE, TOPOGRAPHY AND SOILS

1. Existing Conditions

Like most areas of Hawaii, Maui's climate is relatively uniform year-round. The coolest months on Maui are December and January. August and September are the hottest and most humid summer months. The region's tropical latitude, its position relative

Photograph No. 1
Existing Tank View from Access Driveway

Photograph No. 2
New Tank Site at Grassed Area Adjacent to Chain Link Fence

Figure 4 Proposed Kaupakalua Well Site Storage Tank
Site Photographs

Prepared for: County of Maui, Dept. of Water Supply

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to storm tracts and the surrounding ocean combine to produce a stable climate. Climatic variations on the island are mainly due to differences in local terrain.

Average temperatures at Kahului Airport range from low 60 degrees Fahrenheit in February to high 80 degrees Fahrenheit in August. Rainfall averages approximately 20 inches per year (Maui County Data Book, 2004). Winds predominantly blow north to northeast and northeast.

Underlying the project area are soils belonging to the Waiakoa-Keahua-Molokai association. See Figure 5. This association is characteristically deep and well-drained, with moderately fine-textured subsoil. Soils of this association are found on low uplands.

The soil type specific to the project area is of the Pauwela Clay classification (PfB). See Figure 6. These soils are typically found on 3 to 7 percent slopes, and are characterized by slow run-off rates, moderately rapid permeability, and a slight erosion hazard.

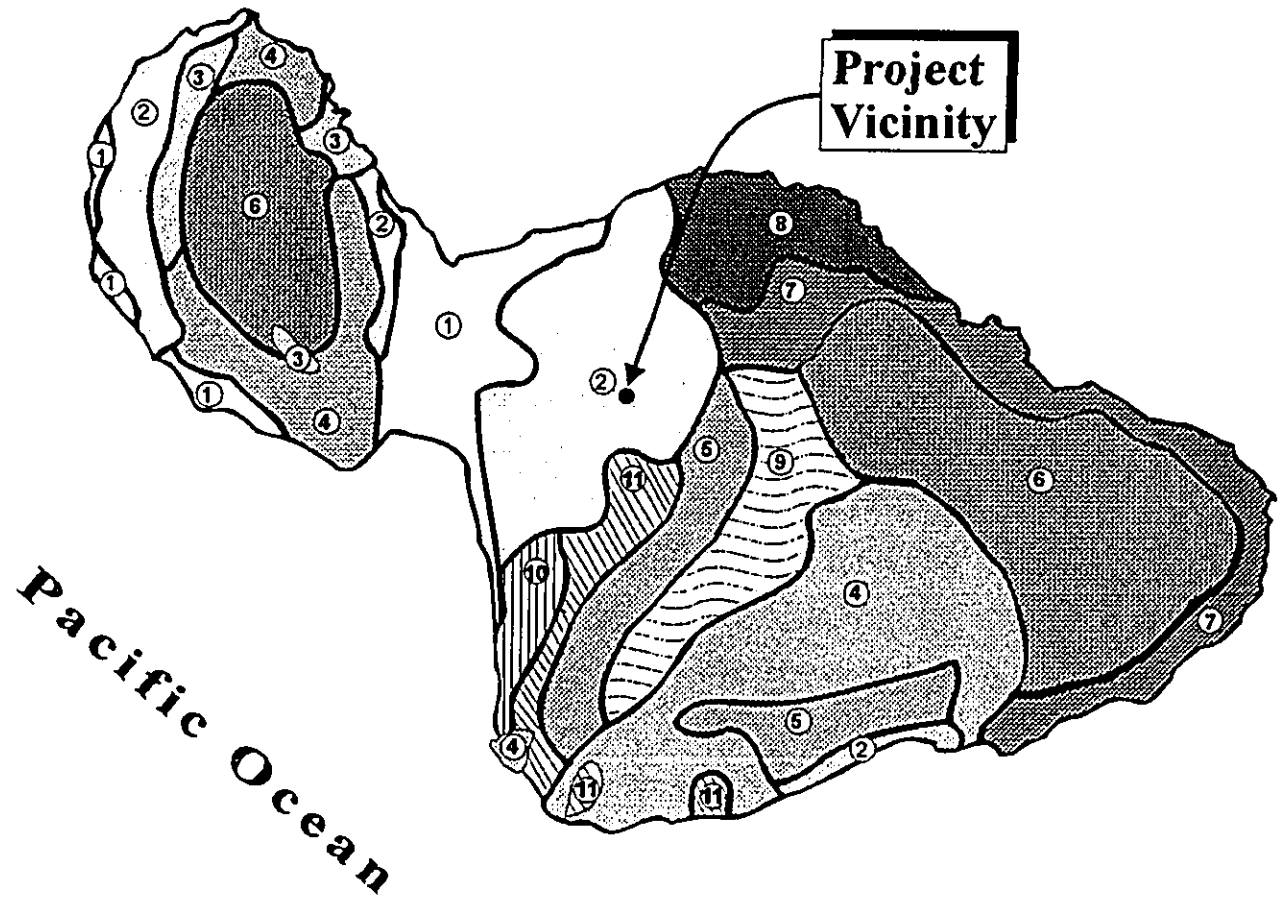
Common vegetation associated with the presence of Pauwela Silty Clay include pasture grass, and California Grass. Lands located within this soil classification have traditionally been utilized for pasture, water supply, pineapple and woodland.

2. *Impacts and Mitigative Measures*

Grading work outside of the existing fence line, required to establish the finished slab elevation of 1,236 feet, will involve cut quantities of approximately 3,400 cubic yards of soil. The

LEGEND

- ① Pulehu-Ewa-Jaucas association
- ② Waiakoa-Keahua-Molokai association
- ③ Honolua-Olelo association
- ④ Rock land-Rough mountainous land association
- ⑤ Puu Pa-Kula-Pane association
- ⑥ Hydrandepts-Tropaquods association
- ⑦ Hana-Makaalae-Kailua association
- ⑧ Pauwela-Haiku association
- ⑨ Laumaia-Kaipoipoi-Olinda association
- ⑩ Keawakapu-Makena association
- ⑪ Kamaole-Oanapuka association



Source: USDA Soil Conservation Service

Figure 5 Proposed Kaupakalua Well Site
Storage Tank
Soil Association Map

NOT TO SCALE

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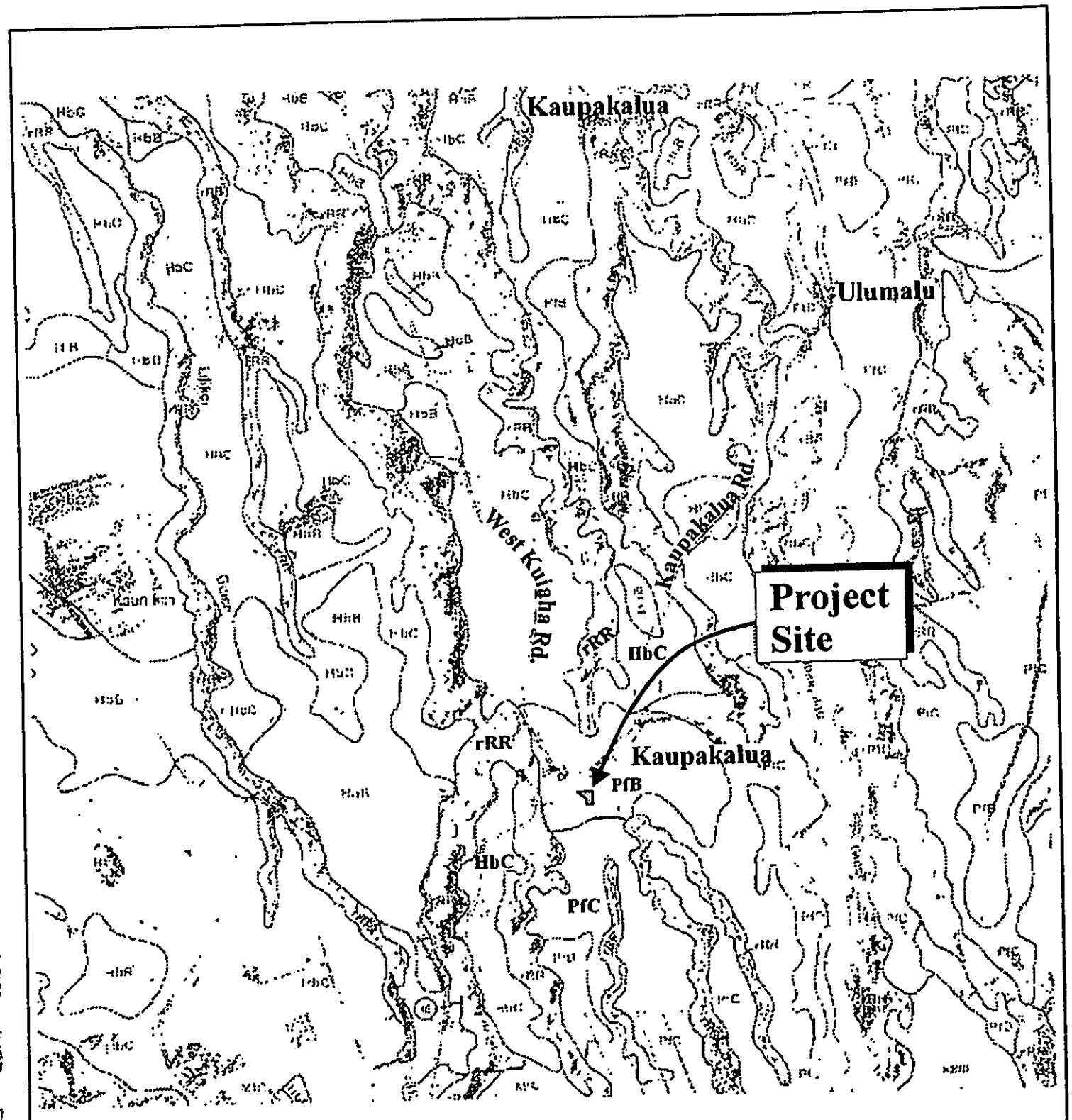
Prepared for: County of Maui, Dept. of Water Supply



Source: U.S. Department of Agriculture Soil Conservation Service

Figure 6 Proposed Kaupakalua Well Site Storage Tank

Soil Classifications Map

0 1000 Feet
500 2000

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Prepared for: County of Maui, Dept. of Water Supply

topographic character of the site will not be substantially altered as a result.

C. FLOOD AND TSUNAMI HAZARDS

1. Existing Conditions

The property is located in an area of the Flood Insurance Rate Map (FIRM) designated as Zone "C", an area of minimal flooding. See Figure 7.

2. Impacts and Mitigative Measures

The proposed action involves the construction of a new pump control tank within Zone "C". Appropriate drainage mitigation measures will be implemented as further discussed in Section K of this chapter. No adverse impact to flood conditions is anticipated as a result of the project.

D. FLORA AND FAUNA

1. Existing Conditions

Given the rural residential nature of the surrounding areas, animal life in the vicinity include rodents, domestic and farm animals. There are no known species of rare or endangered wildlife or avian species in the project vicinity. The project area is currently vegetated with introduced grassed species. Refer to Figure 4. There are no known rare or endangered flora species in the project vicinity.

2. Impacts and Mitigative Measures

The proposed action will have no significant adverse effect on indigenous, rare or endangered species of flora or fauna. Existing grassed area next to the existing tank will be grubbed to make way

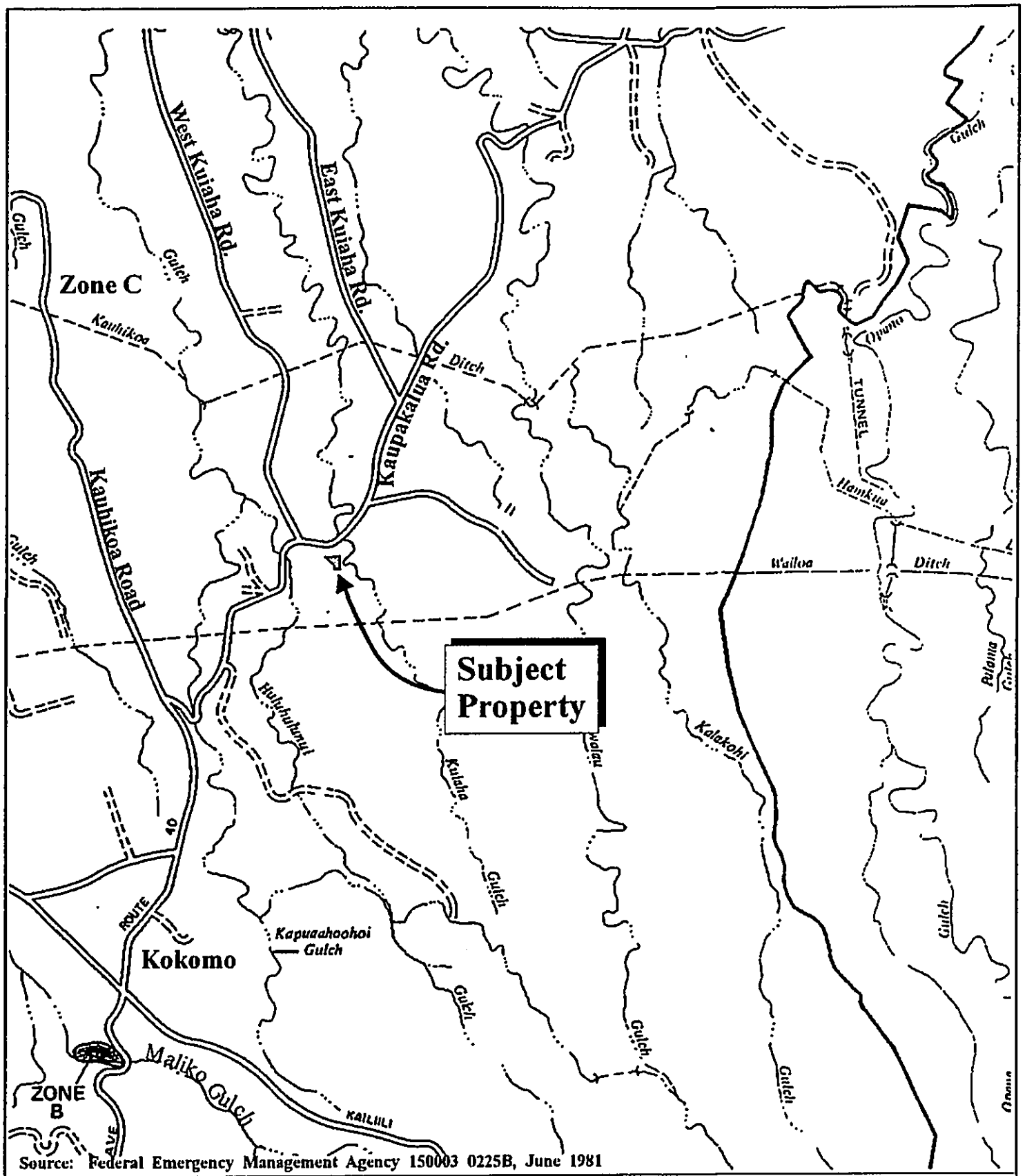


Figure 7 Proposed Kaupakalua Well Site Storage Tank

Flood Insurance Rate Map

0 500 1000 2000 Feet

MUNEKIYO & HIRAGA, INC.

Prepared for: County of Maui, Dept. of Water Supply

for the second pump control tank; however, surrounding vegetation and animal life surrounding the property will not be adversely impacted.

E. AIR AND NOISE CHARACTERISTICS

1. Existing Conditions

There are no point sources of airborne emissions in the immediate vicinity of the project site. The air is of high quality with existing airborne pollutants attributable to automobile exhaust or agricultural activity. The relatively high quality of the air can also be attributed to the region's constant exposure to winds and rain which quickly disperse concentrations of emissions.

Traffic noise generated by vehicles traveling along Kaupakalua Road is the most notable sources of background noise in the vicinity.

2. Impacts and Mitigative Measures

The proposed action is not expected to have a direct impact on air or noise quality. There may be a temporary impact on air and noise quality attributable to construction activities associated with site grading and tank installation. These would, however, be limited, given the small size and scope of improvements. Best Management Practices (BMPs) will be implemented to mitigate impact associated with construction activities.

F. HISTORIC AND ARCHAEOLOGICAL RESOURCES

1. Existing Conditions

The subject property is located amidst an area of pasture that has been maintained. The site was disturbed during construction of the

existing pump control tank and access road five (5) years ago. An archaeological field inspection was conducted at the site. See Appendix "B-1". The walk-over yielded no finding of any materials of archaeological significance. Inspection of the pasture access road cut bank and spot screening did not result in any finding of pre-contact activity.

2. *Impacts and Mitigative Measures*

No impact to archaeological resources is anticipated as a result of the proposed project. There was no finding of any material of archaeological significance onsite. Based on the results of the field inspection and spot screen, no further archaeological monitoring is necessary. In a letter dated January 23, 2006, the State of Hawaii, Department of Land and Natural Resources concurred with the archaeologist's recommendations. See Appendix "B-2". Should any significant deposits be encountered during construction -related activities, all work in the area will cease and the appropriate authorities will be contacted for determination of appropriate mitigation.

G. *CULTURAL IMPACT ASSESSMENT*

1. *Existing Conditions*

a. *Historical Context*

The project site lies in the area that was part of the West Kaupakalua Ahupua'a, near the Hamakua Coast, which consisted of numerous landing sites for initial migration to Maui during the pre-contact period. Refer to Appendix "B-1". The area most likely consisted of a modest population due to its proximity to gulches that probably contained flowing streams. The area's proximity to valleys would have

been ideal for production of taro, breadfruit, kukui nut trees, yams and sugar cane and its proximity to the coast would have been optimal for fishing. During the great Mahele, when various parcels of land were awarded, the project area was part of a parcel of land that was a pasture. The land was formerly owned by Alexander and Baldwin. Most of the land near the project area was used for sugar cane or pineapple cultivation. The site was later acquired by the County of Maui.

b. Informant Interview

In order to obtain personal perspectives on cultural issues surrounding the subject property, an interview was conducted with an individual with intimate and long-standing knowledge of the area. The interview is presented below.

Sandy Daniells

Sandy Daniells was born in Wailuku, Maui in 1957. She has lived on Maui for over 35 years, and lived on Oahu for a few years. Her mother was a Hanzawa girl and her maternal grandfather Mr. Tetsuji Hanzawa opened Hanzawa Store in 1928. The Hanzawa store is currently located in the original store location and has been in operation since its opening, except for a brief period in the 1970's when the store had a fire. Mrs. Daniells remembered helping in the store when she was little and stated that her mother managed the store when her grandfather was interned during World War II. She also mentioned that her aunties and uncles also helped in the store in a variety of jobs. The Hanzawa family owned several acres of land in the area, however they have sold a part of their land that was located behind the store. The Hanzawa Store property is approximately 3.6 acres and is located in close proximity to the project site, near the intersection of Kaupakalua Road and Awalau Road. Mrs. Daniells stated that her husband is a member of the Haiku Community Association.

Mrs. Daniells did not have any strong memories about the project location. She recalled that the land was in pasture use for cattle grazing, for as long as she remembered. She never really utilized the project site. She remembered picking mountain apples on the former Hanzawa property that was located behind the store and playing there when she was little. Mrs. Daniells remembered that people used to hunt in the gulch area that is located in close proximity to the Hanzawa Store and the project site, but she had not heard of people hunting there lately. She stated that she likes the open pasture land in the area and expressed the desire to keep the area as its country-like setting like it was in the past. She noted however, that she realized that growth was normal.

Should the proposed project proceed, Mrs. Daniells did not feel that there would be an impact to agricultural lands as the project site had only been used for cattle grazing as far as she knew and that there is already an existing well onsite. She also stated that she did not feel that there would be any cultural impact should the project move forward as the property has been pasture land for many years as noted above.

However, if there is an impact on the traffic flow and transportation routes as a result of the project, there may be a concern by the area residents. She noted that when the County closed the Kaupakalua Bridge to repair and replace drainage culverts last year, the project took nearly three months and the resulting re-routing of traffic created a hardship on the residents as they had to drive the long way around Haiku. Also, the road closure had a big impact on Hanzawa's business with a significant loss of revenues for that period.

Mrs. Daniells is hopeful that if this project is handled similar to the time when the existing well site was installed, there should be minimal impact on the community. Mrs. Daniells noted that she would like to see the County develop more water sources and storage in the area for the community so they could issue water meters to all the residents who have been waiting on a list for many years. She stated that she has seen a gradual change in the store's customers in the last five to ten years with many new residents moving into Haiku as well as an increase in the transient population. She feels that Haiku is definitely a significant growth area.

2. ***Impacts and Mitigative Measures***

Based on the results of the archaeological study and information provided through the informant interview, the proposed pump control tank is not anticipated to have an adverse impact on cultural practices. Hanzawa Store, located nearby, is a historic building; however, its current owner has stated that she does not recall any significant cultural events occurring in the area. Archaeological field work supports her claim. The land in the vicinity has been disturbed as a result of maintenance of the pasture land and ground-altering attributable to construction of the existing pump control tank and access road.

H. SCENIC AND OPEN SPACE RESOURCES

1. ***Existing Conditions***

The existing tank site lies in a rural residential area surrounded by open pasture land. From the project site, residences separated by intermittent groves of trees and grasslands are visible. Surrounding land consists of rolling hills, which define the scenic character of the area. Refer to Figure 4.

2. ***Impacts and Mitigative Measures***

The new tank is not anticipated to affect the scenic character of the region. Given its relatively remote location and placement adjacent to the existing Kaupakalua well pump control tank, the surrounding open space and scenic characteristics of the region will not be compromised.

I. PUBLIC SERVICES

1. Existing Conditions

The County of Maui's Police Department headquarters is located in Wailuku. There are three (3) patrol divisions on the island of Maui. These are the Wailuku, Lahaina, and Hana divisions. The Central Maui division covers Wailuku-Kahului, Paia-Haiku, and Makawao-Pukalani-Kula.

Fire prevention, suppression, and protection services for the project area are provided by the County Department of Fire and Public Safety's Makawao Fire Station, located near Pukalani.

Maui Memorial Medical Center is currently the only major medical facility on the island. Acute, general, and emergency care services are provided by the 196-bed facility. In addition, there are private medical and dental clinics to service residents of Paia, Makawao and Pukalani.

Single-family solid waste collection service is provided once weekly by the County of Maui. Residential solid waste collected by County crews are disposed at the County's Central Maui Landfill, located in the Puunene region, adjacent to Ameron Hawaii's rock quarry site. In addition to County-collected refuse, commercial waste from private collection companies is also disposed there.

Key recreational facilities found in the project vicinity include the Haiku Community Center and Park and Eddie Tam Memorial Complex in Makawao, which both consist of a community center and field recreational spaces.

State of Hawaii, Department of Education schools located in the surrounding communities include Haiku Elementary School (grades K to 5), Makawao Elementary School (grades K to 5), Kalama Intermediate School (grades 6 to 8) and King Kekaulike High School (grades 9 to 12).

Private schools in the area include the Horizons Academy in Haiku (grades K to 12), Montessori School (pre-K to 8) in Makawao, the Doris Todd Memorial School (pre-K to grade 8) in Paia, Seabury Hall (grades 6 to 12)in Olinda, and Kamehameha School (grades pre-K to 12) in Kula.

Maui Community College, a branch of the University of Hawaii System offers higher education programs at its Kahului campus.

2. *Impacts and Mitigative Measures*

The proposed action will not impact public services, as it does not affect demand for police, fire, recreational, or educational service.

J. *SOCIO-ECONOMIC ENVIRONMENT*

1. *Existing Conditions*

Maui County has experienced considerable growth in recent years. The resident population increased approximately 24 percent in the 10-year span from 1992 to 2003, from 108,585 to 135,605 persons (Maui County Data Book, 2004). Growth in the County is expected to continue, with the resident population projected to increase to 151,300 persons by the year 2010 and 174,450 persons by the year 2020 (Maui County Data Book, 2004).

The community of Haiku is one of mixed residential and agricultural uses. The residential and commercial communities of Kuau and Paia lie north of the site, while Makawao and Pukalani lie to the west of the area.

The population of Paia-Haiku has been increasing at a rapid rate. In the 10-year span from 1990 to 2000, the population of the Paia-Haiku region grew by 52 percent, from 7,788 to 11,866 persons. The regional population is further projected to rise to 14,868 persons in the period 2000-2010 (SMS, 2002).

2. *Impacts and Mitigative Measures*

The proposed action will not have a significant impact on population or economy, given the project's limited size, scope and use.

K. *INFRASTRUCTURE*

1. *Existing Conditions*

The subject property may be accessed from a paved roadway off Kaupakalua Road, a two-lane, two-way County facility. The speed limit on Kaupakalua Road, in the vicinity of the project site, is 20 mph. Kaupakalua Road becomes Makawao Avenue, leading toward Makawao town.

Although wastewater services on Maui are provided by the County through the Department of Public Works and Environmental Management, there are no County wastewater collection and transmission facilities in the area. There is no wastewater generating facility on the project site.

The existing 200,000 gallon tank located on the subject property serves the Haiku region of Maui via 12-inch transmission lines. The additional storage capacity and pump control provided by the new tank will continue to serve the same service area.

Except for the tank drain, there will be no drainage improvements on the property or adjacent lands. Rainfall runoff from the property generally sheet flows in a northerly direction, where it either percolates into the soil or is conveyed to the East Kuiaha Gulch.

Electrical service to the tank site is provided by Maui Electric Company. There is no telephone service to the site.

2. ***Impacts and Mitigative Measures***

The proposed second tank will not impact traffic flow on local roadways in proximity to the project site. Currently, DWS personnel conduct monitoring and maintenance operations at the site daily as required of processes involving chlorine treatment. The second tank will not result in any increase in this requirement. Therefore, there should be no increase in facility-related traffic volume at the site.

The proposed tank will enhance water service capabilities to the Haiku service area by providing added storage capacity and pump control, which meets the DWS water system standards.

The proposed action will not affect wastewater systems, nor will it have any adverse drainage impact on downstream or adjacent properties. See Appendix "C".

L. CUMULATIVE AND SECONDARY IMPACTS

A cumulative impact is defined as an impact to the environment which results from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Actions such as those that involve the construction of public facilities or infrastructure stimulate secondary impacts, such as population growth and increased demands for public services and infrastructure.

The proposed second tank is intended to meet existing water system needs. The proposed project is not part of a larger water system development proposal.

Chapter III

Relationship to Land Use Plans, Policies and Controls

III. RELATIONSHIP TO LAND USE PLANS, POLICIES AND CONTROLS

A. STATE LAND USE DISTRICTS

Chapter 205, Hawaii Revised Statutes, relating to the Land Use Commission, establishes four (4) major use districts in which all lands in the State are placed. These districts are designated as "Urban", "Rural", "Agricultural", and "Conservation". The subject property is located within the "Agricultural" district. See Figure 8. The proposed second tank is a permitted use in the "Agricultural " district.

B. MAUI COUNTY GENERAL PLAN

The Maui County General Plan (1990 Update) sets forth broad objectives and policies to help guide the long-range development of the County. As stated in the Maui County Charter:

> *"... shall indicate desired population and physical development patterns for each island and region within the county; shall address the unique problems and needs of each island and region; shall explain the opportunities and the social, economics, and environmental consequences related to the potential developments; and shall set forth the desired sequence, patterns and characteristics of future developments. The general plan shall identify objectives to be achieved, and priorities, policies, and implementing actions to be pursued with respect to population density, land use maps, land use regulations, transportation systems, public and community facility locations, water and sewage systems, visitor destinations, urban design, and other matters related to development."*

The proposed action is in keeping with the following General Plan objectives and policies:

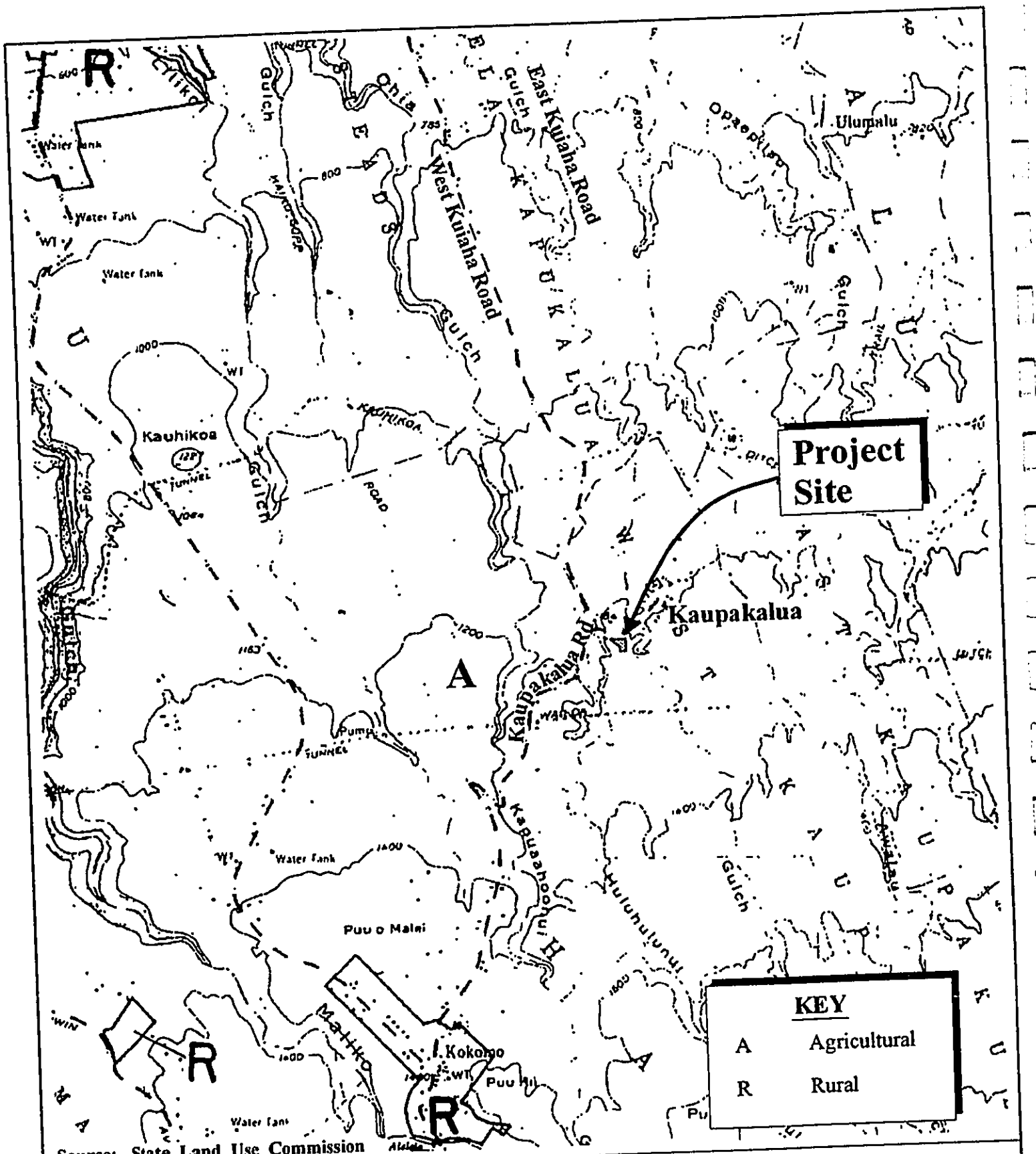


Figure 8 Proposed Kaupakalua Well Site
Storage Tank
State Land Use Designations

0 500 1000 2000 Feet

MUNEKIYO & HIRAGA, INC.

Prepared for: County of Maui, Dept. of Water Supply

Objective:

To provide an adequate supply of potable and irrigation water to meet the needs of Maui County's residents.

Policies:

i. Support the improvement of water transmission systems to those areas which historically experience critical water supply problems provided the improvements are consistent with the water priorities and the County's Water Use Development Plan provisions for the applicable community plan area.

e. Support the Board of Water Supply in its determination of future water needs consistent with the General Plan, Community Plans and the growth management strategy.

Objective:

To make more efficient use of our ground, surface and recycled water sources.

Policy:

e. Maximize use of existing water sources by expanding storage capabilities.

Objective:

To improve the quality and availability of public facilities throughout Maui County.

Policy:

c. Seek improvement in the maintenance and operation of public facilities.

Objective:

Improve the delivery of services by government agencies to all community plan areas.

Policies:

d. Insure that necessary services not provided by the private sector are made available by government.

C. *PAIA-HAIKU COMMUNITY PLAN*

Within Maui County, there are nine (9) Community Plan regions. From a General Plan implementation standpoint, each region is governed by a Community Plan which sets forth desired land use patterns, as well as goals, objectives, policies, and implementing actions for a number of functional areas including infrastructure-related parameters. The subject property is located within the Paia-Haiku Community Plan region. See Figure 9.

The subject parcel is located on lands currently designated as "Agricultural" in the Community Plan. The proposed action is permitted in the "Agricultural" land use category. The proposed land use action is in keeping with the existing water storage facilities on the subject property.

Applicable goals, objectives and policies of the Paia-Haiku Community Plan are cited below.

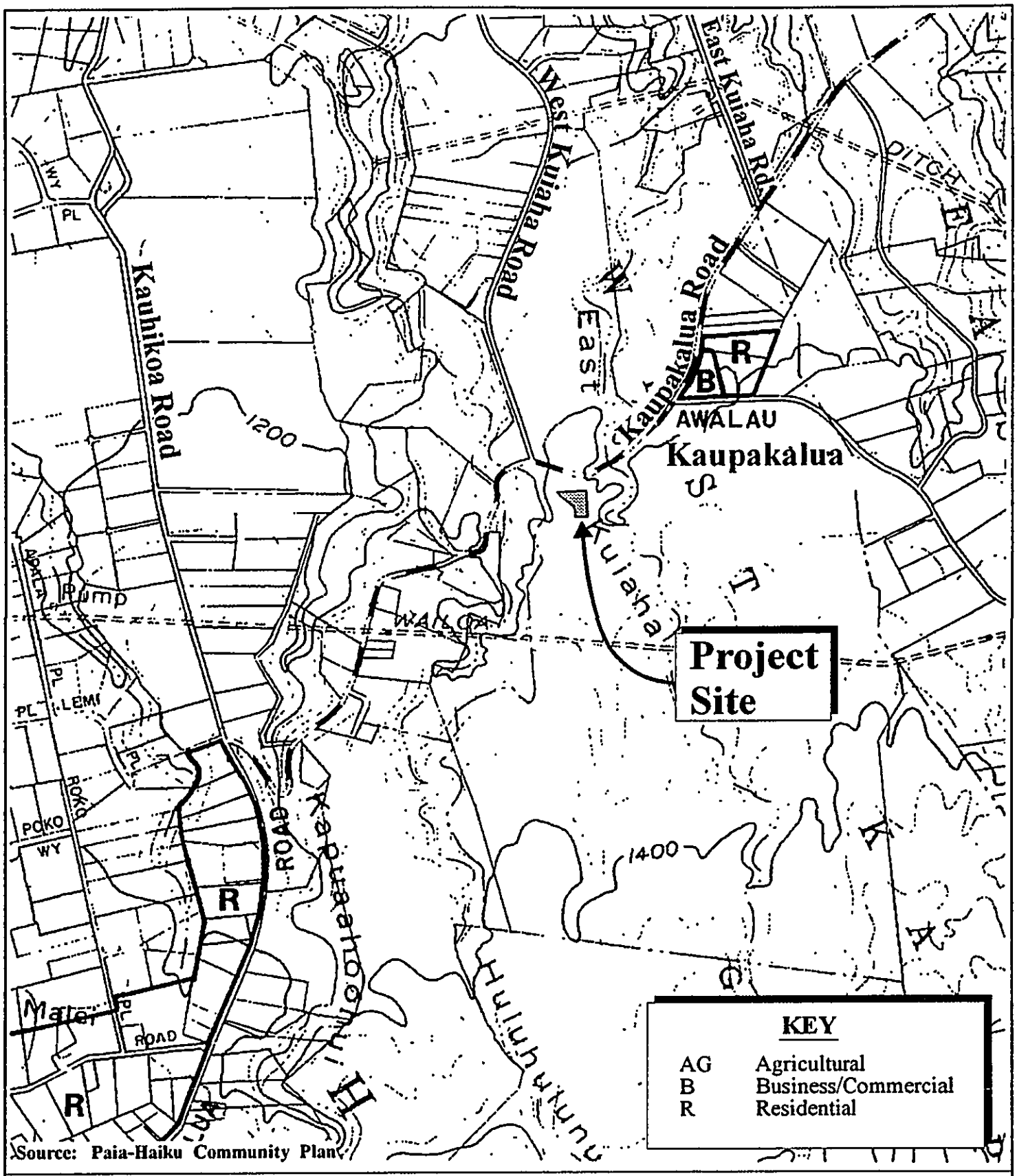
Goal:

An adequate supply of potable and irrigation water to meet the needs of the region.

Objectives and Policies:

1. Increase water storage capacity with a reserve for drought periods.

2. Ensure that adequate water capacity is available for domestic and agricultural needs of the region.



Source: Paia-Haiku Community Plan

Figure 9 Proposed Kaupakalua Well Site Storage Tank

Community Plan Land Use Classifications

NOT TO SCALE

MUNEKIYO & HIRAGA, INC.

Prepared for: County of Maui, Dept. of Water Supply

Goal:

Government that demonstrates the highest standards of fairness and is responsive to the needs of the community, fiscally responsible and prudent, effective in planning and implementing programs to accommodate anticipated growth, fair and equitable in taxation, strict in the implementation of the Community Plan, and managed efficiently to provide coordinated and timely responses and the delivery of necessary services and programs to the public.

Objective and Policy:

1. Coordinate, direct and manage future development, and provide for necessary public services and infrastructure in a more effective and timely fashion.

D. COUNTY ZONING

The subject parcel is zoned "Agricultural" by the County. The proposed tank is a permitted use within this zoning district.

E. COASTAL ZONE MANAGEMENT AREA OBJECTIVES AND POLICIES

Pursuant to Chapter 205A, Hawaii Revised Statutes, projects are evaluated with respect to Coastal Zone Management (CZM) objectives, policies and guidelines. It should be noted that although the subject property is not located within the County of Maui's Special Management Area (SMA), the project's relationship to applicable coastal zone management considerations have been reviewed and assessed.

(1) Recreational Resources

Objective:

Provide coastal recreational opportunities accessible to the public.

Policies:

(A) Improve coordination and funding of coastal recreational planning and management; and

(B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:

(i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;

(ii) Requiring replacement of coastal resources having significant recreational value including, but not limited to, surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the state for recreation when replacement is not feasible or desirable;

(iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;

(iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;

(v) Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;

(vi) Adopting water quality standards and regulating point and non-point sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;

(vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and

(viii) Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of Section 46-6, HRS.

Response: The subject property is located inland, away from the coastline. The proposed action is therefore, not anticipated to adversely impact existing coastal recreational resources.

(2) ***Historic Resources***

Objective:

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

Policies:

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

Response: An archaeological assessment was performed for the project area. Refer to Appendix "B-1". There were no historic deposits found or any items of cultural significance which would be affected by the proposed project. The State Historic Preservation Division concurred with the archaeologist's recommendation that no further archaeological work is necessary. Refer to Appendix "B-2". In the event that any subsurface archaeological resources are found during construction activities, all work will cease and the State Historic Preservation Division will be contacted immediately to determine appropriate mitigation measures.

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

Objective:

Protect, preserve and, where desirable, restore or improve the quality of coastal scenic and open space resources.

Policies:

(A) Identify valued scenic resources in the coastal zone management area;

(B) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;

(C) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and

(D) Encourage those developments that are not coastal dependent to locate in inland areas.

Response: The project site is not located within a significant coastal view corridor. The proposed action is not anticipated to have an adverse impact on shoreline views or open space resources.

(4) Coastal Ecosystems

Objective:

Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.

Policies:

(A) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;

(B) Improve the technical basis for natural resource management;

(C) Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;

(D) Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and

(E) Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.

Response: Appropriate soil erosion and drainage control measures will be implemented during construction, in order to minimize disruption to downstream coastal water ecosystems. In light of the limited scope and scale of the proposed action, adverse impact on coastal ecosystems is not anticipated.

(5) ***Economic Uses***

Objective:

Provide public or private facilities and improvements important to the State's economy in suitable locations.

Policies:

(A) Concentrate coastal dependent development in appropriate areas;

(B) Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and

(C) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth in such areas, and permit coastal dependent development outside of presently designated areas when:

(i) Use of presently designated locations is not feasible;
(ii) Adverse environmental effects are minimized; and
(iii) The development is important to the State's economy.

Response: While short-term employment opportunities during project construction will be generated, there should be no significant adverse economic impacts associated with the proposed project. The proposed action is not contrary to the objective and policy for economic use.

(6) ***Coastal Hazards***

Objective:

Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence and pollution.

Policies:

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

Response: According to the Flood Insurance Rate Map for the area, the project site is located within Zone "C", an area of minimal flooding. The proposed project is not anticipated to affect the region's susceptibility to coastal hazards.

(7) ***Managing Development***

Objective:

Improve the development review process, communication, and public participation in the management of coastal resources and hazards.

Policies:

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

cycle and in terms understandable to the public to facilitate public participation in the planning and review process.

Response: A review of the proposed project is being facilitated, in accordance with the Chapter 343, HRS process. Early consultation with agencies and interested parties was conducted for formulation of this Environmental Assessment document.

(8) Public Participation

Objective:

Stimulate public awareness, education, and participation in coastal management.

Policies:

(A) Promote public involvement in coastal zone management processes;

(B) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and

(C) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.

Response: As noted above, the applicant conducted consultation in accordance with the Environmental Assessment requirements, Chapter 343, Hawaii Revised Statutes. The proposed project does not contradict the objectives of public awareness, education and participation.

(9) Beach Protection

Objective:

Protect beaches for public use and recreation.

Policies:

(A) Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;

(B) Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and

(C) Minimize the construction of public erosion-protection structures seaward of the shoreline.

Response: The proposed project will not involve construction near shoreline areas, and is, therefore, not anticipated to have an adverse effect on local beach environment.

(10) Marine Resources

Objective:

Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

Policies:

(A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;

(B) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;

(C) Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;

(D) Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and

(E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

Response: The proposed action will not have an adverse impact on coastal marine resources.

Chapter IV

Summary of Adverse Environmental Effects Which Cannot Be Avoided

IV. SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

Project construction will have a certain amount of construction-related impact on the area, including generation of noise and dust. The construction-related impact will be temporary and mitigated through implementation of appropriate BMPs.

The development of the proposed new storage tank will involve the commitment of vacant land. In addition, the proposed action would involve a commitment of fuel, labor, funding, and material resources; however, the commitment of resources will be justified, given the eventual benefits to be realized through the completion of this water system component.

In the long term, the construction of the new water tank is not anticipated to result in any significant, long-term adverse environmental effects.

Chapter V

Alternatives to the Proposed Action

V. ALTERNATIVES TO THE PROPOSED ACTION

The proposed storage tank was envisioned with the original planning and design of the site. The anticipated need for a water storage tank was considered by the DWS to be an important long-term consideration for additional storage capacity in the region. Alternatively, additional storage may be provided at other sites with similar elevation and topographic characteristics. However, other site alternatives would result in an even greater environmental impact and are not as cost effective as the proposed action, given that the existing tank site is already equipped with pumps and lines designed to facilitate its integration.

The "no action" alternative is not an option, as water system infrastructure upgrades represented by the proposed action are needed to ensure public health and safety.

Chapter VI

Anticipated Determination and Findings and Reasons Supporting the Determination

VI. ANTICIPATED DETERMINATION AND FINDINGS AND REASONS SUPPORTING THE DETERMINATION

The "Significance Criteria", Section 12 of the Administrative Rules, Title 11, Chapter 200, "Environmental Impact Statement Rules", were reviewed and analyzed to determine whether the proposed action will have significant impacts on the environment. The following analysis is provided:

1. ***No Irrevocable Commitment to Loss or Destruction of any Natural or Cultural Resources Would Occur as a Result of the Proposed Project***

   An archaeological assessment has been conducted on the property by Xamanek Researches, LLC. There were no archaeological features identified through the assessment process. Refer to Appendix "B-1". The State Historic Preservation Division concurred that development of the area will have no impact on historic sites. Refer to Appendix "B-2". Should there be unanticipated finds of culturally significant material during project construction, the State Historic Preservation Division (SHPD) will be notified and appropriate mitigative measures implemented in accordance with SHPD program requirements.

2. ***The Proposed Action Would Not Curtail the Range of Beneficial Uses of the Environment***

   The subject property contains existing water storage and appurtenant facilities. The proposed action involves the construction of a second tank at the site.

   Given the limited size and scope of the proposed action, there would be no consequent curtailment of the range of beneficial uses of the environment.

3. ***The Proposed Action Does Not Conflict with the State's Long-Term Environmental Policies or Goals or Guidelines as Expressed in Chapter 344, Hawaii Revised Statutes***

The State's Environmental Policy and Guidelines are set forth in Chapter 344, Hawaii Revised Statues (HRS). The proposed action is in consistent with the policies and guidelines of Chapter 344, HRS.

4. ***The Economic or Social Welfare of the Community or State Would Not Be Substantially Affected***

The construction of the second storage tank would not have a significant impact on community economic or social welfare parameters.

5. ***The Proposed Action Does Not Affect Public Health***

No adverse impact to public health is anticipated to result from the proposed new water storage facility.

6. ***No Substantial Secondary Impacts, such as Population Changes or Effects on Public Facilities are Anticipated***

There should be no adverse effect on public services, such as police, fire, medical, educational, or waste collection services. The proposed action is a needed upgrade to the County's water system.

7. ***No Substantial Degradation of Environmental Quality is Anticipated***

In the context of the existing water facilities located on the subject parcel, the proposed second storage tank will not have a substantial impact on environmental quality.

8. ***The Proposed Project Does Not Involve a Commitment to Larger Actions, Nor Would Cumulative Impacts Result in Considerable Effects on the Environment***

The proposed action does not involve a commitment to larger actions nor will it have a significant cumulative impact on the environment. Best Management Practices (BMPs) will be employed to minimize environmental impacts to acceptable levels.

9. ***No Rare, Threatened or Endangered Species or Their Habitats Would Be Adversely Affected by the Proposed Action***

There are no known rare, endangered, or threatened species on or near the project vicinity and, therefore, there should be no impact by the proposed action.

10. ***Air Quality, Water Quality or Ambient Noise Levels Would Not Be Detrimentally Affected by the Proposed Project***

Long-term adverse impact to air and water quality are not anticipated by the proposed action. There may be a short-term impact on air and noise quality associated with construction of the tank. BMPs will be implemented to reduce these short-term impacts to acceptable levels.

11. ***The Proposed Project Would Not Affect Environmentally Sensitive Areas Such as Flood Plains, Tsunami Zones, Erosion-Prone Areas, Geologically Hazardous Lands, Estuaries, Fresh Waters or Coastal Waters***

The subject property is not located in an environmentally sensitive area. There are no wetlands or other environmentally sensitive areas in close proximity and the property is identified as an area of minimal flooding.

12. ***The Proposed Action Would Not Substantially Affect Scenic View and Viewplanes Identified in County Plans or Studies***

The site for the new storage tank is located on the same parcel as the existing storage facility. The land immediately surrounding the property is predominantly pasture, with rural residential uses beyond. The new tank will not impinge upon view corridors or adversely impact the visual character of the project area.

13. ***The Proposed Action Would Not Require Substantial Energy Consumption***

The proposed action would not involve a significant commitment of energy resources. In the context of regional energy consumption, no adverse impact to energy is anticipated.

Based on the foregoing analysis, it is anticipated that the proposed action will result in a Finding Of No Significant Impact (FONSI).

Chapter VII

List of Permits and Approvals

VII. LIST OF PERMITS AND APPROVALS

The proposed action calls for the following governmental approvals:

County of Maui

1. Grading permit; and
2. Building permit.

State of Hawaii

1. National Pollutant Discharge Elimination System Permit (as applicable)

Chapter VIII

Agencies and Organizations Consulted During the Preparation of the Draft Environmental Assessment; Letters Received and Responses to Substantive Comments

VIII. AGENCIES AND ORGANIZATIONS CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT; LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENTS

The following agencies and organizations were consulted during the preparation of the Draft Environmental Assessment. Agency comments and responses to substantive comments are also included in this section.

1. Ranae Ganske-Cerizo,
Soil Conservationist
Natural Resources Conservation Service
U.S. Department of Agriculture
210 Imi Kala Street, Suite 209
Wailuku, Hawaii 96793-2100

2. George YoungChief, Regulatory Branch
U.S. Department of the Army
U.S. Army Engineer District, Honolulu
Regulatory Branch
Building 230
Fort Shafter, Hawaii 96858-5440

3. Robert P. SmithField, Supervisor
U. S. Fish and Wildlife Service
300 Ala Moana Blvd., Rm. 3-122, Box 50088
Honolulu, Hawaii 96813

4. Laura Thielen, Director
State of Hawaii
Office of Planning
P.O. Box 2359
Honolulu, Hawaii 96804

5. Patricia Hamamoto, Superintendent
State of Hawaii
Department of Education
P.O. Box 2360
Honolulu, Hawaii 96804

6. Denis Lau, Chief
Clean Water Branch
State of Hawaii
Department of Health
919 Ala Moana Blvd., Room 300
Honolulu, Hawaii 96814

7. Herbert Matsubayashi, District Environmental Health Program Chief
State of Hawaii
Department of Health
54 High Street
Wailuku, Hawaii 96793

8. Peter Young, Chairperson
State of Hawaii
Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809

9. Melanie Chinen, Administrator
State of Hawaii
Department of Land and Natural Resources
State Historic Preservation Division
601 Kamokila Blvd., Room 555
Kapolei, Hawaii 96707

10. Rodney Haraga, Director
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813
cc: Fred Cajigal

11. Clyde Namu'o, Administrator
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

12. Carl Kaupalolo, Chief
County of Maui
Department of Fire and Public Safety
200 Dairy Road
Kahului, Hawaii 96732

13. Alice Lee, Director
County of Maui
Department of Housing and Human Concerns
200 S. High Street
Wailuku, Hawaii 96793

14. Michael W. Foley, Director
County of Maui
Department of Planning
250 South High Street
Wailuku, Hawaii 96793

15. Glenn Correa, Director
County of Maui
Department of Parks and Recreation
700 Halia Nakoa Street, Unit 2
Wailuku, Hawaii 96793

16. Thomas Phillips, Chief
County of Maui
Police Department
55 Mahalani Street
Wailuku, Hawaii 96793

17. Milton Arakawa, Director
County of Maui
Department of Public Works and Environmental Management
200 South High Street
Wailuku, Hawaii 96793

18. Neal Shinyama, Manager-Engineering
Maui Electric Company, Ltd.
P.O. Box 398
Kahului, Hawaii 96732

19. Gregg Blue, President
Haiku Community Association
P. O. Box 1036
Haiku, Hawaii 96708

United States Department of Agriculture

NRCS Natural Resources Conservation Service

USDA

Our People...Our Islands...In Harmony

210 Imi Kala Street, Suite #209, Wailuku, HI 96793-2100
(808) 244-3100

August 25, 2005

Tara Nakashima
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

Regarding: Proposed Kaupakalua Well Storage Tank
TMK: (2) 2-7-15:038

Dear Ms. Nakashima,

I have received a copy of the letter concerning the proposed Kaupakalua Well Storage Tank in the Haiku-Pauwela area. I appreciate the opportunity to review information. At this time, I have no comments concerning the project.

Sincerely,

Diana L. Perry
Civil Engineer

Cc: Ranae Ganske-Cerizo, NRCS

AUG 2 6 2005

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF

August 24, 2005

Regulatory Branch

Munekiyo & Hiraga, Inc.
Attention: Tara Nakashima, Planner
305 High Street, Suite 104
Wailuku, HI 96793

Subject: Pre-consultation on a draft Environmental Assessment (EA) for the proposed Kaupakalua Well Storage Tank at TMK: (2) 2-7-15:38, Haiku-Pauwela, Maui, Hawaii.

Dear Ms. Nakashima:

File No. POH-2005-454

This office has reviewed the materials you submitted on August 12, 2005 pursuant to Section 404 of the Clean Water Act (CWA). Under Section 404 of the CWA, any activity that results in the placement of dredged or fill material within a water of the U.S. requires a Department of the Army (DA) permit.

The East Kuiaha Gulch runs approximately south-to-north to the east of the project area. Based on the materials submitted, it does not appear that the construction of the new tank will involve a discharge of dredged or fill material below the ordinary high water mark (OHWM) of the gulch or within any nearby wetlands. Therefore, a DA permit will not be required for the proposed project. However, best management practices (BMP's) should be employed to prevent discharges of potential pollutants (i.e. turbidity, petroleum products, etc.) associated with grading and construction from impacting waters within the gulch. Also, no stockpiling or staging areas for construction shall be located within the gulch.

Please contact this office for a revised determination of jurisdiction if modifications are proposed that would increase or otherwise change the project scope. If you need further assistance, please contact Ms. Connie Ramsey by phone at 808-438-2039, by facsimile at 808-438-4060, or by electronic mail at Connie.L.Ramsey@usace.army.mil. Please refer to the above-referenced file number for further inquiries regarding this project. Thank you for your cooperation with our regulatory program.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

Copy furnished:
Mr. Ed Chen, Clean Water Branch, Dept. of Health, P.O. Box 3378, Honolulu, HI 96801

MUNEKIYO & HIRAGA, INC.

November 18, 2005

George P. Young, P.E.
Chief, Regulatory Branch
Department of the Army
U.S. Army Engineer District, Honolulu
Ft. Shafter, Hawaii 96858-5440

SUBJECT: Proposed Kaupakalua Pump Control Storage Tank (TMK 2-7-15:38)

Dear Mr. Young:

Thank you for your letter of August 24, 2005, commenting on the proposed action. We confirm that there will be no discharge of dredged material which will affect the East Kuiaha Gulch. Best Management Practices will be employed to ensure that construction actions do not affect waters within the gulch. Moreover, there will be no stockpiling or staging areas for construction in or near the gulch.

Thank you again for your input. A copy of the Draft Environmental Assessment will be provided to your office for review and comment. In the meantime, if there are any questions regarding this proposal, please do not hesitate to call me at 244-2015.

Very truly yours,

Tara K. Nakashima, Planner

TKN:lh
cc: Larry Winter, Department of Water Supply
Jerry Fujita, KAI Hawaii, Inc.
F:\DATA\KAIH\Kaupakalua\g.young.ltr.wpd

planning environment

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 · planning@mhinconline.com

SEP 0 6 2005

LINDA LINGLE
GOVERNOR

PATRICIA HAMAMOTO
SUPERINTENDENT

STATE OF HAWAI'I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI'I 96804

OFFICE OF THE SUPERINTENDENT

August 31, 2005

Ms. Tara K. Nakashima, Planner
Munekiyo & Hiraga Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Nakashima:

Subject: Early Consultation for Kaupakalua Storage Tank
Haiku-Pauwela, Maui, TMK: 2-7-15: 38

The Department of Education (DOE) has no comment to offer on the early consultation for the County of Maui's proposal to build a new water storage tank at Kaupakalua.

If you have any questions, please call Rae Loui, Assistant Superintendent of the Office of Business Services, at 586-3444 or Heidi Meeker of the Facilities Development Branch at 733-4862.

Very truly yours,

Patricia Hamamoto
Superintendent

PH:hy

cc: Rae Loui, Asst. Supt., OBS
Ron Okamura, CAS, Hana/Lahainaluna/Lanai/Molokai Complex Area

SEP 1 3 2005

LINDA LINGLE
GOVERNOR OF HAWAII

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

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

In reply, please refer to:
EMD / CWB

09021PKP.05

September 12, 2005

Ms. Tara K. Nakashima
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Nakashima:

Subject: Proposed Kaupakalua Well Storage Tank

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of the subject document on August 12, 2005. 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..." (emphasis added). 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 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 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.

The 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.

Sincerely,

DENIS R. LAU, P.E., CHIEF
Clean Water Branch

KP:cf

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO

November 18, 2005

Dennis R. Lau, P.E., Chief
Clean Water Branch
State of Hawaii
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801-3378

SUBJECT: Proposed Kaupakalua Pump Control Storage Tank (TMK 2-7-15:38)

Dear Mr. Lau:

Thank you for your letter of September 12, 2005 commenting on the proposed action. In response to your comments, we provide the following responses:

1. The Army Corps of Engineers has been consulted and has determined that a Department of the Army Permit will not be required.

2. The Department of Water Supply will comply with the requirements of HAR Sections 11-55-04 and 11-55-34.05, relating to the National Pollutant Discharge Elimination System, as applicable.

3. An archaeological assessment report will be prepared and submitted to the State Historic Preservation Division (SHPD) for review. As required by HAR Section 11-55-38, appropriate coordination and documentation will be secured from SHPD.

4. Project construction and operations will comply with HAR chapter 11-54, as applicable.

5. The Department of Water Supply acknowledges and understands the requirements of Hawaii Revised Statues, Subsection 342D-50(a).

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

Thank you again for your input. A copy of the Draft Environmental Assessment will be provided to your office for review and comment. In the meantime, it there are any questions regarding this proposal, please do not hesitate to call me at 244-2015.

Very truly yours,

Tara K. Nakashima, Planner

TKN:lh
cc: Larry Winter, Department of Water Supply
Jerry Fujita, KAI Hawaii, Inc.
F:\DATA\KAI\Kaupakalua\dlau.ltr.wpd

AUG 19 2005

LINDA LINGLE
GOVERNOR OF HAWAII

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

LORRIN W. PANG, M. D., M. P. H.
DISTRICT HEALTH OFFICER

STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
54 HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2102

August 18, 2005

Ms. Tara K. Nakashima
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawai'i 96793

Dear Ms. Nakashima:

Subject: **Proposed Kaupakalua Well Storage Tank**
TMK: (2) 2-7-15:38

Thank you for the opportunity to participate in the early consultation process of the Environmental Assessment for the proposed Kaupakalua Storage Tank project. The following comments are offered:

The noise created during the construction phase of the project may exceed the maximum allowable levels set forth in Hawaii Administrative Rules, Chapter 11-46, "Community Noise Control". A noise permit may be required and should be obtained before the commencement of work.

Should you have any questions, please call me at 808 984-8230.

Sincerely,

Herbert S. Matsubayashi
District Environmental Health Program Chief

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO

November 18, 2005

Herbert S. Matsubayashi
District Environmental Health Program Chief
State of Hawaii
Department of Health
Maui District Health Office
54 High Street
Wailuku, Hawaii 96793

SUBJECT: Proposed Kaupakalua Pump Control Storage Tank (TMK 2-7-15:38

Dear Mr. Matsubayashi:

Thank you for the letter of August 18, 2005, commenting on the proposed action. In response to your comments, we note that a noise permit pursuant to Chapter 11-46, "Community Noise Control," will be secured, as applicable.

Thank you again for your input. A copy of the Draft Environmental Assessment will be provided to your office for review and comment. In the meantime, if there are any questions regarding this proposal, please do not hesitate to call me at 244-2015.

Very truly yours,

Tara K. Nakashima, Planner

TKN:lh
cc: Larry Winter, Department of Water Supply
Jerry Fujita, KAI Hawaii, Inc.
F:\DATA\KAIHI\Kaupakalua\hmatsubayashi.ltr.wpd

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

AUG 2 6 2005

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON

MEREDITH J. CHING
JAMES A. FRAZIER
NEAL S. FUJIWARA
CHIYOME L. FUKINO, M.D.
LAWRENCE H. MIIKE, M.D., J.D.
STEPHANIE A. WHALEN

DEAN A. NAKANO
ACTING DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

August 23, 2005

REF: KaupakuluaWT.dr

Ms. Tara K. Nakashima, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Ste. 104
Wailuku, HI 96793

Dear Ms. Nakashima:

SUBJECT: Kaupakulua 0.3 mg Water Tank Early Consultation

FILE NO.: 53076

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore, all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at *http://www.hawaii.gov/dlnr/cwrm*.

Our comments related to water resources are checked off below.

☒ 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.

☐ 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.

☐ 3. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

Permits required by CWRM: Additional information and forms are available at *www.hawaii.gov/dlnr/cwrm/forms.htm*.

☐ 4. The proposed water supply source for the project is located in a designated ground-water management area, and a Water Use Permit is required prior to use of ground water.

☐ 5. A Well Construction Permit(s) is (are) required before the commencement of any well construction work.

☐ 6. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.

DRF-GN 4/15/2005

☐ 7. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.

☐ 8. Ground-water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.

☐ 9. A Stream Channel Alteration Permit(s) is (are) required before any alteration can be made to the bed and/or banks of a stream channel.

☐ 10. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is constructed or altered.

☐ 11. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.

☐ 12. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.

☐ 13. We recommend that the report identify feasible alternative non-potable water resources, including reclaimed wastewater.

☒ OTHER:

The tank site is adjacent to a completed Well No. 5317-01 (Kaupakulua-Kulamalu Well).

If there are any questions, please contact Charley Ice at 587-0251.

Sincerely,

DEAN A. NAKANO
Acting Deputy Director

Cl:ss

MUNEKIYO & HIRAGA, INC.

November 18, 2005

Dean A. Nakano, Acting Deputy Director
Department of Land and Natural Resources
Commission on Water Resource Management
P.O. Box 621
Honolulu, Hawaii 96809

SUBJECT: Proposed Kaupakalua Pump Control Storage Tank (TMK 2-7-15:38)

Dear Mr. Nakano:

Thank you for your letter of August 23, 2005, commenting on the proposed action. In response to your comments, we note the following:

1. The project is being developed under the auspices of the Department of Water Supply and will be included in the County's Water Use and Development Plan.

2. Well No. 5317-01 is located on the subject parcel.

Thank you again for your input. A copy of the Draft Environmental Assessment will be provided to your office for review and comment. In the meantime, if there are any questions regarding this proposal, please do not hesitate to call me at 244-2015.

Very truly yours,

Tara K. Nakashima, Planner

TKN:lh
cc: Larry Winter, Department of Water Supply
Jerry Fujita, KAI Hawaii, Inc.
F:\DATA\KAIH\Kaupakalua\dnakano.ltr.wpd

planning environment

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

LINDA LINGLE
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA
DIRECTOR

Deputy Directors
BRUCE Y. MATSUI
BARRY FUKUNAGA
BRENNON T. MORIOKA
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

STP 8.1867

August 31, 2005

Ms. Tara Nakashima, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Nakashima:

Subject: Proposed Kaupakalua Well Storage Tank
Draft Environmental Assessment Early Consultation

Thank you for your transmittal requesting our review of the subject project.

The proposed development of a potable well, control tank, and construction of a 12-inch waterline will not have an impact on our State highway facilities.

We appreciate the opportunity to provide comments.

Very truly yours,

RODNEY K. HARAGA
Director of Transportation

DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
COUNTY OF MAUI

ALAN M. ARAKAWA
Mayor

ALICE L. LEE
Director

HERMAN T. ANDAYA
Deputy Director

200 SOUTH HIGH STREET • WAILUKU, HAWAII 96793 • PHONE (808) 270-7805 • FAX (808) 270-7165

August 16, 2005

Ms. Tara Nakashima, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Nakashima:

SUBJECT: PROPOSED KAUPAKALUA WELL STORAGE TANK

We have reviewed your August 12, 2005 early consultation letter regarding the preparation of the draft EA for the subject project and wish to inform you that we do not have any comments to offer.

Thank you for the opportunity to comment.

Very truly yours,

ALICE L. LEE
Director

ETO:hs

c: Housing Administrator

ALAN M. ARAKAWA
Mayor

MICHAEL W. FOLEY
Director

WAYNE A. BOTEILHO
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

October 10, 2005

Ms. Tara K. Nakashima, Planner
Munekiyo & Hiraga, Inc.
305 South High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Nakashima:

RE: Preconsultation Comments in Preparation of the Draft Environmental Assessment for the Kaupakalua Well Water Storage Tank, located at TMK: 2-7-015:038, Haiku, Island of Maui, Hawaii (LTR 2005/2240)

The Maui Planning Department (Department) is in receipt of your letter dated August 12, 2005, requesting comments on the Draft Environmental Assessment (EA) prepared for the above-referenced project, which includes construction of a 300,000 gallon water storage tank on the site of an existing Department of Water Supply tank site, as well as appurtenant features such asphalt paving around the perimeter of the new tank, and a new 6-ft. high chain link perimeter fence.

Based on the foregoing, the Department provides the following comments:

1. The subject parcel is located in the State Land Use Agricultural District as well as the Maui County Agricultural District. Pursuant to §19.04.040 and §19.30A.050 of the Maui County Code, the proposed work qualifies as a "minor utility facility", and therefore is a permitted use within the Agricultural District.

2. Discuss how the proposal is consistent with the Paia-Haiku Community Plan, including:

   a. Discuss the impact of this project on water storage capacity, and the reserve water capacity for covering periods of drought.
   b. Discuss the impact of this project with regards to adequacy of water capacity for the domestic and agricultural needs of the region.
   c. Discuss the impact, if any, that increased water storage

CORRECTION

THE PRECEDING DOCUMENT(S) HAS BEEN REPHOTOGRAPHED TO ASSURE LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

ALAN M. ARAKAWA
Mayor

MICHAEL W. FOLEY
Director

WAYNE A. BOTEILHO
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

October 10, 2005

Ms. Tara K. Nakashima, Planner
Munekiyo & Hiraga, Inc.
305 South High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Nakashima:

RE: Preconsultation Comments in Preparation of the Draft Environmental Assessment for the Kaupakalua Well Water Storage Tank, located at TMK: 2-7-015:038, Haiku, Island of Maui, Hawaii (LTR 2005/2240)

The Maui Planning Department (Department) is in receipt of your letter dated August 12, 2005, requesting comments on the Draft Environmental Assessment (EA) prepared for the above-referenced project, which includes construction of a 300,000 gallon water storage tank on the site of an existing Department of Water Supply tank site, as well as appurtenant features such asphalt paving around the perimeter of the new tank, and a new 6-ft. high chain link perimeter fence.

Based on the foregoing, the Department provides the following comments:

1. The subject parcel is located in the State Land Use Agricultural District as well as the Maui County Agricultural District. Pursuant to §19.04.040 and §19.30A.050 of the Maui County Code, the proposed work qualifies as a "minor utility facility", and therefore is a permitted use within the Agricultural District.

2. Discuss how the proposal is consistent with the Paia-Haiku Community Plan, including:

   a. Discuss the impact of this project on water storage capacity, and the reserve water capacity for covering periods of drought.
   b. Discuss the impact of this project with regards to adequacy of water capacity for the domestic and agricultural needs of the region.
   c. Discuss the impact, if any, that increased water storage

capacity will have on increasing demand on the underlying aquifer.

d. The Community Plan states that "there is concern over the development of new ground water sources in Ha'iku and the allocation of this resource to service other regions of the island, namely Wailuku-Kahului and Kihei-Makena...if and when the present and future needs of the Pa'ia-Ha'iku area are not met". Please discuss how this project addresses the concerns raised in the above statement.

e. Discuss how this project relates to the water improvement master plan for the Paia-Haiku region.

3. Discuss the existing condition and use of the land which will be subject to development, and what agricultural resources will be lost by its development.

4. Discuss the impact on public views which might be affected by construction of the water storage tank. Will the tank be visible from Kaupakalua or West Kuiaha Road? If so, please provide information on how visual impact of the tank will be mitigated, using measures such as landscape buffering and/or choosing a paint color for the tank which will blend it into its surroundings.

5. Discuss the anticipated timetable for the construction phase of the project.

6. Discuss construction mitigation measures for the project regarding air and water quality as well as soil conservation.

7. Discuss any traffic impacts that this project will have on Kaupakalua Road during its construction phase, and what roadway safety and traffic control measures will be taken to mitigate such impacts. (Police Department)

Thank you for the opportunity to comment. Please include the Department on the distribution list for the Draft EA. Should you require further clarification, please contact Mr. Dan Shupack, Staff Planner, of this office at 270-5517.

Sincerely,

MICHAEL W. FOLEY
Planning Director

MWF:DBS:dm
c: Wayne Boteilho, Deputy Planning Director
Clayton Yoshida, AICP, Planning Program Administrator
Kivette Caigoy, Environmental Planner
Dan Shupack, Staff Planner
OEQC
General File
K:\WP_DOCS\PLANNING\EA\PreConComments\2005\2240_KaupakaluaWell_WaterStorage.wpd

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO

November 9, 2005

Michael W. Foley, Director
County of Maui
Department of Planning
250 South High Street
Wailuku, Hawaii 96793

SUBJECT: Proposed Kaupakalua Pump Control Tank, located at TMK 2-7-015:038, Haiku, Maui

Dear Mr. Foley:

Thank you for your letter dated October 10, 2005, commenting on the proposed pump control tank in Kaupakalua. In response to your comments, we would like to note the following:

1. The Draft Environmental Assessment (EA) will address project consistency with the Paia-Haiku Community Plan. For clarification purposes, we note the following:

   a. The proposed tank is not designed to provide reserve capacity for droughts;
   b. The storage capacy has no impact on aquifer demand; and
   c. The additional storage will serve Haiku area only.

2. The Draft EA will discuss existing land conditions and relationship to agricultural resources.

3. An assessment of scenic resources and views will be included in the Draft EA.

4. Information regarding construction scheduling will be included in the Draft EA.

5. Air quality and water quality mitigation considerations will be addressed by the EA document.

6. Traffic impact considerations will be included in the Draft EA.

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

Thank you again for your input. A copy of the Draft Environmental Assessment will be provided to your office for review and comment. In the meantime, if there are any questions in regards to this proposal, please do not hesitate to call me at 244-2015.

Very truly yours,

Tara K. Nakashima, Planner

TKN:yp
cc: Larry Winter, Department of Water Supply
Jerry Fujita, KAI Hawaii, Inc.
F:\DATA\KAIH\Kaupakalua\planning.res.wpd

ALAN M. ARAKAWA
Mayor

GLENN T. CORREA
Director

JOHN L. BUCK III
Deputy Director

(808) 270-7230
Fax (808) 270-7934

DEPARTMENT OF PARKS & RECREATION

700 Hali'a Nakoa Street, Unit 2 , Wailuku, Hawaii 96793

August 26, 2005

Munekiyo & Hiraga, Inc.
Attention: Tara Nakashima, Planner
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Nakashima:

SUBJECT: PROPOSED KAUPAKALUA WELL STORAGE TANK

We have reviewed the subject application and have no comments or objections to the proposed action.

Thank you for the opportunity to review and comment. Please contact me or Mr. Patrick Matsui, Chief of Planning and Development, at 270-7387 if there are any questions.

Sincerely,

GLENN T. CORREA
Director

c: Patrick Matsui, Chief of Planning and Development

ALAN M. ARAKAWA
MAYOR

OUR REFERENCE
ti
YOUR REFERENCE

POLICE DEPARTMENT
COUNTY OF MAUI

55 MAHALANI STREET
WAILUKU, HAWAII 96793
(808) 244-6400
FAX (808) 244-6411

THOMAS M. PHILLIPS
CHIEF OF POLICE

KEKUHAUPIO R. AKANA
DEPUTY CHIEF OF POLICE

September 2, 2005

Ms. Tara K. Nakashima, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

Dear Ms. Nakashima:

SUBJECT: Proposed Kaupakalua Well Storage Tank

Thank you for your letter of August 12, 2005, requesting comments on the above subject.

We have reviewed the information submitted for this project and have enclosed our comments and recommendations. Thank you for giving us the opportunity to comment on this project.

Very truly yours,

Assistant Chief Sydney Kikuchi
for: Thomas M. Phillips
Chief of Police

c: Michael Foley, Planning Department

Enclosure

COPY

TO : THOMAS PHILLIPS, CHIEF, MAUI POLICE DEPARTMENT

VIA : CHANNELS T2 09/01/05

FROM : RANDALL BURGESS, P.O.III, WAILUKU PATROL

SUBJECT : PROPOSED KAUPAKALUA WELL STORAGE TANK

Sir, this To/From is being submitted in regards to police comments/recommendations to the proposed Kaupakalua Well Storage Tank located at TMK 2-7-15:38 in Haiku, Maui, Hi..

Project review revealed the following comment/recommendation in regards to roadway/ traffic:

The construction phase of this project will possibly impact Kaupakalua Road and other surrounding county roadways. Suggest that the project's contractor take appropriate roadway safety measures and traffic control if needed.

In closing, there is no further police comment at this time.

Respectfully submitted,
Randall Burgess
Randall BURGESS #1023
083005 @ 0930 hours

Concur with the comments submitted by Ofc. R. BURGESS relating to the traffic concerns during construction.

9/6/05

Concur with Ofc. Burgess, Jr. Sgt. Pacheco.

A/Capt. 9/6/05

* site security needs to be addressed.

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO

November 18, 2005

Thomas M. Phillips, Chief of Police
Maui Police Department
County of Maui
55 Mahalani Street
Wailuku, Hawaii 96793

SUBJECT: Proposed Kaupakalua Pump Control Storage Tank (TMK 2-7-15:38)

Dear Chief Phillips:

Thank you for your letter of September 2, 2005 commenting on the proposed action. In response to your comments, we note that the project contractor will implement necessary traffic control measures to ensure the safety of the traveling public on local roadways in the vicinity of the project site. In addition, the project site will be secured with fencing to deter unlawful entry into the tank facility site.

Thank you again for you input. A copy of the Draft Environmental Assessment will be provided to your office for review and comment. In the mean time, if there are any questions regarding this proposal, please do not hesitate to call me at 244-2015.

Very truly yours,

Tara K. Nakashima, Planner

TKN:lh
cc: Larry Winter, Department of Water Supply
Jerry Fujita, KAI Hawaii, Inc.
F:\DATA\KAIH\Kaupakalua\phillips.ltr.wpd

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

ALAN M. ARAKAWA
Mayor

MILTON M. ARAKAWA, A.I.C.P.
Director

MICHAEL M. MIYAMOTO
Deputy Director

Telephone: (808) 270-7845
Fax: (808) 270-7955

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
AND ENVIRONMENTAL MANAGEMENT
200 SOUTH HIGH STREET, ROOM 322
WAILUKU, MAUI, HAWAII 96793

RALPH NAGAMINE, L.S., P.E.
Development Services Administration

Wastewater Reclamation Division

CARY YAMASHITA, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

TRACY TAKAMINE, P.E.
Solid Waste Division

September 29, 2005

Mr. Michael Munekiyo
MUNEKIYO & HIRAGA, INC.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Dear Mr. Munekiyo:

SUBJECT: ENVIRONMENTAL ASSESSMENT (EA)
PRE-CONSULTATION PROPOSED KAUPAKALUA WELL STORAGE TANK
TMK: (2) 2-7-015:038

We reviewed the subject application and have the following comments:

1. A detailed and final drainage report shall be submitted with the draft EA.

Please call Michael Miyamoto at 270-7845 if you have any questions regarding this letter.

Sincerely,

/s/ MILTON M. ARAKAWA, A.I.C.P.
Director

MMA:MMM:da
s:\LUCA\CZM\Kaupakalua_Well_Storage_Tank_pre_cons_ea_27015038_da_revised.wpd

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO

November 18, 2005

Milton Arakawa, Director
County of Maui
Department of Public Works
and Environmental Management
200 South High Street, Room 322
Wailuku, Hawaii 96793

SUBJECT: Proposed Kaupakalua Pump Control Tank, located at TMK 2-7-015:038, Haiku, Maui

Dear Mr. Arakawa:

Thank you for your letter dated September 29, 2005, commenting on the proposed pump control tank in Kaupakalua. In response to your comments, we would like to note the following:

1. The civil engineer is preparing the drainage report, which shall be included in the Draft Environmental Assessment.

Thank you again for your input. A copy of the Draft Environmental Assessment will be provided to your office for review and comment. In the meantime, if there are any questions in regards to this proposal, please do not hesitate to call me at 244-2015.

Very truly yours,

Tara K. Nakashima, Planner

TKN:yp
cc: Larry Winter, Department of Water Supply
Jerry Fujita, KAI Hawaii, Inc.
F:\DATA\KAIHI\Kaupakalua\dws.res.wpd

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

Maui Electric Company, Ltd. • 210 West Kamehameha Avenue • PO Box 398 • Kahului, Maui, HI 96733-6898 • (808) 871-8461

SEP 0 6 2005

September 1, 2005

Munekiyo & Hiraga, Inc.
Attention: Tara Nakashima, Planner
305 High Street, Suite 104
Wailuku, HI 96793

Dear Ms. Nakashima,

Subject: Proposed Kaupakalua Well Storage Tank –
Draft Environmental Assessment (EA)
Kaupakalua Road, Haiku
TMK: (2) 2-07-015: 038

Thank you for allowing us to comment on the subject project.

In reviewing our records and the information transmitted, Maui Electric Company (MECO) has no objections to the proposed project at this time.

If you have any questions or concerns, please call Ray Okazaki at 871-2340.

Sincerely,

Neal Shinyama
Manager, Engineering

NS/ro:lh

Chapter IX

Letters Received During the Draft Environmental Assessment Public Comment Period and Responses to Substantive Comments

IX. LETTERS RECEIVED DURING THE DRAFT ENVIRONMENTAL ASSESSMENT PUBLIC COMMENT PERIOD AND RESPONSES TO SUBSTANTIVE COMMENTS

A Draft Environmental Assessment for the subject project was filed and published in the Office of Environmental Quality Control's The Environmental Notice on December 8, 2005. Comments on the Draft EA were received during the 30-day public comment period. Comments, as well as responses to substantive comments, are included in this chapter.

DEC 1 4 2005

United States Department of Agriculture

USDA

NRCS Natural Resources Conservation Service

Our People...Our Islands...In Harmony

210 Imi Kala Street, Suite #209, Wailuku, HI 96793-2100

December 12, 2005

Tara Nakashima
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Subject: Proposed Kaupakalua Well Storage Tank, TMK (2) 2-7-15:038
TMK: (2) 2-2-02:por. 56

Dear Ms Nakashima,

I have reviewed the copy of the Draft Environmental Assessment and I have no comments.

Thank you for the opportunity to comment.

Sincerely,

Ranae Ganske-Cerizo
District Conservationist

LINDA LINGLE
GOVERNOR

DEC 2 3 2005
PATRICIA HAMAMOTO
SUPERINTENDENT

STATE OF HAWAI'I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI'I 96804

OFFICE OF THE SUPERINTENDENT

December 22, 2005

Ms. Tara K. Nakashima, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Nakashima:

SUBJECT: Draft Environmental Assessment for Kaupakalua Storage Tank, Haiku-Pauwela, Maui, TMK: 2-7-15: 38

The Department of Education has no comment or concern with the County of Maui's proposal to build a new water storage tank at Kaupakalua.

If you have any questions, please call Heidi Meeker of the Facilities Development Branch at 733-4862.

Very truly yours,

Patricia Hamamoto
Superintendent

PH:ly

cc: Assistant Superintendent, OBS
Duane Kashiwai, Facilities Development Branch
Ron Okamura, CAS, Hana/Lahaina/Lanai/Molokai Complex Areas

LINDA LINGLE
GOVERNOR OF HAWAII

JAN 04 2006

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

LORRIN W. PANG, M. D., M. P. H.
DISTRICT HEALTH OFFICER

STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
54 HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2102

January 3, 2006

Ms. Tara Nakashima
Munekiyo & Hiraga, Inc.
305 South High Street, Suite 104
Wailuku, Hawai'i 96793

Dear Ms. Nakashima:

Subject: **Proposed Kaupakalua Well Storage Tank**
TMK: (2) 2-7-15:038

Thank you for the opportunity to participate in the Environmental Assessment (EA) review process. Our comment remains the same as originally submitted during the early consultative process of the EA.

The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control". A noise permit may be required and should be obtained before the commencement of work.

Should you have any questions, please call me at 808 984-8230.

Sincerely,

Herbert S. Matsubayashi
District Environmental Health Program Chief

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO

KARLYNN KAWAHARA

January 27, 2006

Herbert S. Matsubayashi, Chief
District Environmental Health Program
Department of Health
State of Hawaii
54 High Street
Wailuku, Hawaii 96793

SUBJECT: Proposed Kaupakalua Well Site Storage Tank at Haiku, Maui, TMK (2)2-7-15:038

Dear Mr. Matsubayashi:

Thank you for your letter dated January 3, 2006 commenting on the Draft Environmental Assessment for the proposed Kaupakalua well site storage tank. In response to your comments, we would like to note the following:

1. Pursuant to Chapter 11-46, "Community Noise Control," a noise permit will be secured prior to commencement of construction, as applicable.

Thank you again for your input. Should you have further questions or concerns, please do not hesitate to call me at 244-2015.

Very truly yours,

Tara K. Nakashima, Planner

TKN:lfm
cc: Larry Winter, Department of Water Supply
Jeff Fujita, KAI Hawaii
F:\DATA\KAIHI\Kaupakalua\DOHMaui.dea.res.wpd

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR - LAND

DEAN NAKANO
ACTING DEPUTY DIRECTOR - WATER

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

December 23, 2006

Ms. Tara Nakashima
Munekiyo and Hiraga, Inc.
205 High Street, Suite 104
Wailuku, Hawai'i, 96793

Log No: 2005.2770
Doc No: 0512MK62
Archaeology

Dear Ms. Nakashima:

SUBJECT: **Chapter 6E-42 Historic Preservation Review – Review of a Draft Environmental Assessment *a Portion of Land in* West Kaupakalua, for the Proposed Kaupakalua Well Storage Tank Site (Concurrent with the review of the Archaeological Assessment)**
Kaupakalua Ahupua'a, Makawao District, Maui
TMK (2) 2-7-015:038

Thank you for the opportunity to review this Draft Environmental Assessment which was received by our staff on December 6, 2005. We are concurrently completing our review of the Archaeological Assessment for the subject property/project (Log 2005.2769/Doc 0512MK61) (Fredericksen 2005, *An Archaeological Assessment Survey Report for a Portion of Land in West Kaupakalua Ahupua'a, Makawao District, Island of Maui,[TMK (2) 2-7-15:38]*) submitted by Xamanek Researches LLC.

The above cited archaeological assessment has been accepted by our office. The inventory survey determined that the area has been subjected to previous impacts during construction of the existing DWS water tank facility. We concur that no further archaeological work is warranted on the subject parcel. As a contingency, in the event that historic sites (human skeletal remains, etc.) are identified during the construction activities, all work needs to cease in the immediate vicinity of the find, the find needs to be protected from additional disturbance, and the State Historic Preservation Office needs to be contacted immediately at 243-5169, on Maui.

Given the above information, we believe that "no historic properties will be affected" by the proposed undertaking. The historic preservation review process is concluded. As always, if you disagree with our comments or have questions, please contact Dr. Melissa Kirkendall (Maui/Lana'i SHPD 243-5169) as soon as possible to resolve these concerns.

Aloha,

MELANIE A. CHINEN, Administrator
State Historic Preservation Division

MK: kf

c: Bert Ratte, DPWEM, County of Maui
Michael Foley, Director, Dept of Planning, 250 S. High Street, Wailuku, HI 96793
Maui Cultural Resources Commission, Dept. of Plng, 250 S. High Street, Wailuku, HI 96793
Department of Water Supply, County of Maui, 200 South High Street, Wailuku, HI 96793

LINDA LINGLE
GOVERNOR

SEP 09 . 5

RODNEY K. HARAGA
DIRECTOR

Deputy Directors
BRUCE Y. MATSUI
BARRY FUKUNAGA
BRENNON T. MORIOKA
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

STP 8.1867

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

August 31, 2005

Ms. Tara Nakashima, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Nakashima:

Subject: Proposed Kaupakalua Well Storage Tank
Draft Environmental Assessment Early Consultation

Thank you for your transmittal requesting our review of the subject project.

The proposed development of a potable well, control tank, and construction of a 12-inch waterline will not have an impact on our State highway facilities.

We appreciate the opportunity to provide comments.

Very truly yours,

RODNEY K. HARAGA
Director of Transportation

PHONE (808) 594-1888

FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

JAN 0 3 2006

HRD05/1994B

December 27, 2005

George Y. Tengan
Department of Water Supply, Count y of Maui
200 South High Street
Wailuku, Maui 96793-2155

RE: Draft Environmental Assessment for the Proposed Kaupakalua Well Storage Tank, Ha'ikū, Maui, TMK (2) 2-7-15: 038.

Dear Mr. Tengan,

The Office of Hawaiian Affairs (OHA) is in receipt of your December 6, 2005 request for comment on the above listed proposed project, TMK (2) 2-7-15: 038. OHA offers the following comments:

Our staff recommends that archaeological monitoring of ground altering activities continue in support of the Kaupakalua Well Storage Tank project. As the results of prior monitoring have not yielded much in the way of material culture, it may be appropriate to amend the Archaeological Monitoring Plan in favor of on-call and spot check monitoring by a professional archaeologist.

OHA further requests your assurances that if the project goes forward, should iwi or Native Hawaiian cultural or traditional deposits be found during ground disturbance, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Thank you for the opportunity to comment. If you have further questions or concerns, please contact Jesse Yorck at (808) 594-0239 or jessey@oha.org.

'O wau iho nō,

Clyde W. Nāmu'o
Administrator

CC: ✓Tara K. Nakashima
Munekiyo and Haraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii, 96793

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO

KARLYNN KAWAHARA

January 27, 2006

Clyde Nāmu`o, Administrator
State of Hawaii
Office of Hawaiian Affairs
711 Kapiolani Blvd., Suite 500
Honolulu, Hawaii 96813

SUBJECT: Proposed Kaupakalua Well Site Storage Tank at Haiku, Maui, TMK (2)2-7-15:038

Dear Mr. Nāmu`o:

Thank you for your letter dated December 25, 2005, commenting on the Draft Environmental Assessment for the proposed Kaupakalua well site storage tank. In response to your comments, we would like to note the following:

1. Based on the results of the archaeological assessment survey, the project archaeologist has deemed that no monitoring will be necessary during construction of the proposed project. However, coordination with the State Historic Preservation Division (SHPD) will continue to ensure that applicable requirements of the SHPD are addressed.

2. Should material of archaeological or cultural significance be found during groundbreaking activity, all work in the area of the finding will cease and the State Historic Preservation Division will be contacted.

Thank you again for your input. In the meantime, should you have further questions or concerns, please do not hesitate to call me at (808) 244-2015.

Very truly yours,

Tara K. Nakashima, Planner

TKN:lfm
cc: Larry Winter, Department of Water Supply
Jeff Fujita, KAI Hawaii
F:\DATA\KAIHI\Kaupakalua\OHA.dea.res.wpd

305 High Street, Suite 104 Wailuku, Hawaii 96793 · ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
COUNTY OF MAUI

ALAN M. ARAKAWA
Mayor

ALICE L. LEE
Director

HERMAN T. ANDAYA
Deputy Director

200 SOUTH HIGH STREET • WAILUKU, HAWAII 96793 • PHONE (808) 270-7805 • FAX (808) 270-7165

DEC 16 2005

December 9, 2005

Ms. Tara Nakashima
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Nakashima:

SUBJECT: PROPOSED KAUPAKALUA WELL STORAGE TANK

We have reviewed the draft Environmental Assessment (EA) for the subject project and do not have any comment to offer.

Thank you for the opportunity to comment. We are returning the draft EA for your use.

Very truly yours,

ALICE L. LEE
Director

ETO:hs

Enclosure

c: Housing Administrator

ALAN M. ARAKAWA
Mayor

MICHAEL W. FOLEY
Director

WAYNE A. BOTEILHO
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

January 9, 2006

Ms. Tara K. Nakashima, Planner
Munekiyo & Hiraga, Inc.
305 South High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Nakashima:

RE: Draft Environmental Assessment for the Proposed Kaupakalua Well Water Storage Tank, located at TMK: 2-7-015:038, Haiku, Island of Maui, Hawaii (EAC 2006/0001)

The Maui Planning Department (Department) has reviewed the above referenced document and provides the following comments:

1. Discuss how the proposal is consistent with the Paia-Haiku Community Plan, including:

   a. The Community Plan states that "there is concern over the development of new ground water sources in Ha'iku and the allocation of this resource to service other regions of the island, namely Wailuku-Kahului and Kihei-Makena ... if and when the present and future needs of the Pa'ia-Ha'iku area are not met." Please discuss how this project addresses the concerns raised in the above statement.

   b. Discuss how this project relates to the water improvement master plan for the Paia-Haiku region.

2. Please discuss the paint color for the proposed tank with regards to visual impact mitigation. Will it be painted the same color as the existing tank?

3. Discuss the anticipated timetable for the construction phase of the project.

4. Discuss in greater detail the Best Management Practices (BMP's) which will be implemented during the construction phases of the project to reduce impacts on air and water quality as well as promote soil conservation.

5. Discuss any traffic impacts that this project will have on Kaupakalua Road during its construction phase, and what roadway safety and traffic control measures will be taken to mitigate such impacts. (Police Department)

6. The Preliminary Design Report (Appendix A) mentions that "the Department of Water Supply will secure a construction easement from the property owner and their consent in order for the contractor to perform the grading work on the property adjacent to the project site."

   Discussion of the easement acquisition, including a description of the adjacent property on which the easement will be acquired, should be included in the Project Summary and Project Overview Sections of the Environmental Assessment.

Thank you for the opportunity to comment. Should you require further clarification, please contact Mr. Dan Shupack, Staff Planner, of this office at 270-5517.

Sincerely,

MICHAEL W. FOLEY
Planning Director

MWF:DBS:lar
c: Wayne Boteilho, Deputy Planning Director
Clayton Yoshida, AICP, Planning Program Administrator
Kivette Caigoy, Environmental Planner
Dan Shupack, Staff Planner
OEQC
Project File
General File
K:\WP_DOCS\PLANNING\EAC\2006\0001_Kaupakalua_WaterStorageTank\DEA_comments.wpd

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO

KARLYNN KAWAHARA

January 31, 2006

Michael W. Foley, Director
Department of Planning
County of Maui
Attention: Dan Shupack
250 South High Street
Wailuku, Hawaii 96793

SUBJECT: Proposed Kaupakalua Well Site Storage Tank at Haiku, Maui, TMK (2) 2-7-15:038

Dear Mr. Foley:

Thank you for your letter dated January 9, 2006, commenting on the Draft EA for the proposed Kaupakalua well site storage tank. In response to your comments, we would like to note the following:

1. a. The proposed project will not involve the development of new groundwater sources. It will only involve the construction of a new tank, which will supplement water storage and pump control service to the Haiku area.

   b. The proposed action is part of the Department's long-range capital plan, to ensure adequate water service to the Haiku region, and will be considered for inclusion in updates of the water use and development plan for this region.

2. The County of Maui, Department of Water Supply is planning to select the color of the tank prior to construction, which is anticipated to be commence in July 2006. The proposed tank will most likely be painted a similar green color as the existing tank, so as to blend with the surrounding landscape.

3. The tank will be constructed, as soon as all approvals and permitting are received. The Department of Water Supply is planning to issue the Notice to Proceed to the contractor in July. After the Notice to Proceed is issued, the contractor will be asked to submit a construction schedule. Construction duration is estimated to be approximately 270 days or nine (9) months.

environment
planning
305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 · planning@mhinconline.com

4. The Best Management Practices that will be adhered to during construction, to reduce impacts on air, water and soil are set forth on the grading plan. See **Exhibit "A"** and **Exhibit "B"**. Some of the measures will include use of silt fences, laying gravel down for the construction entrance and grassing of graded areas as soon as practicable.

5. There should be minimal, if any traffic impact on Kaupakalua Road due to the project's location, inland and away from the main accessway. Construction vehicles will enter the site through the access road and park onsite. Traffic back-up along Kaupakalua Road is not anticipated for construction of this size and scale. Notwithstanding, traffic control measures (e.g., use of flaggers) will be implemented as needed, to ensure safe passage of vehicles along Kaupakalua Road.

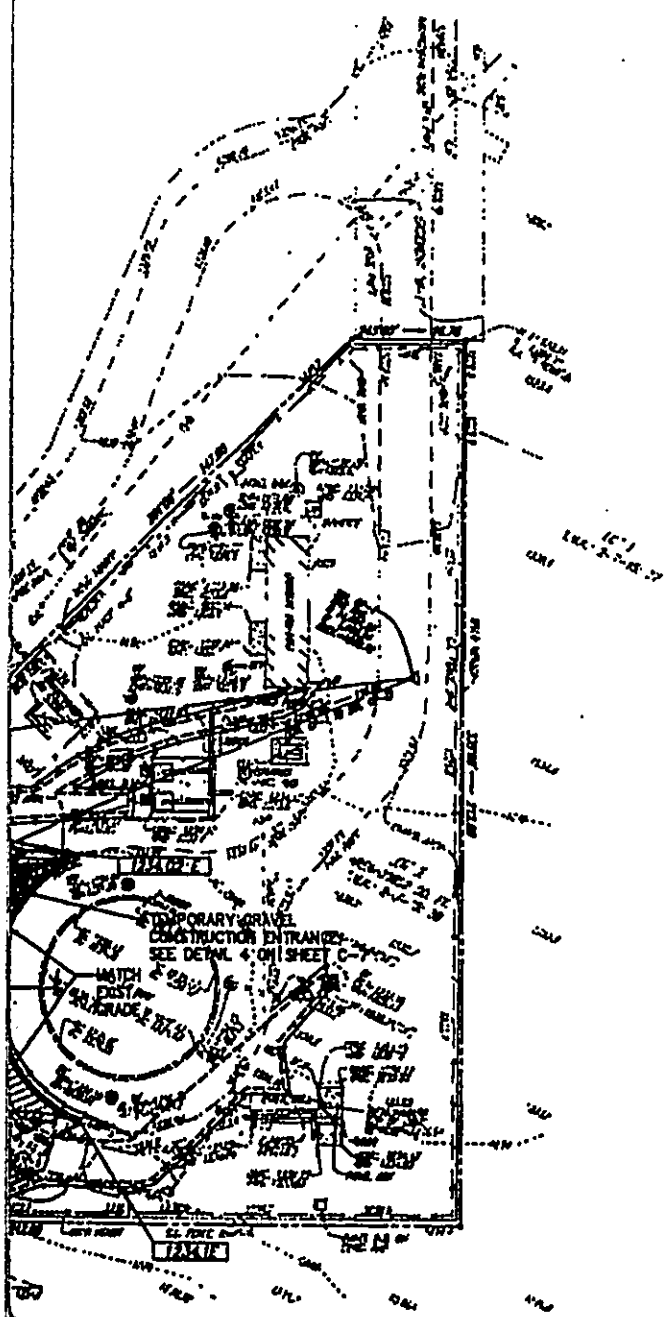
6. The applicant has clarified that a right-of-entry, rather than an easement, will be acquired from Alexander & Baldwin, the adjacent landowner, to perform grading work on their property. Attached is a plan showing the right-of-entry. See **Exhibit "C"**. The right-of-entry acquisition, as well as a description of the adjacent property will be included in the Final Environmental Assessment.

Thank you again for your input. Should you have further questions or concerns, please do not hesitate to call me at 244-2015.

Very truly yours,

Tara K. Nakashima, Planner

TKN:yp
Enclosure
cc: Larry Winter, County of Maui Department of Water Supply (w/enclosure)
Jerry Fujita, KAI Hawaii (w/enclosure)
F:\DATA\KAIH\Kaupakalua\planning.dearos.wpd



EARTHWORK SUMMARY

EXCAVATION=3380
EMBANKMENT=24

N

GRAPHIC SCALE: 1" = 20'

APPROVED

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

OKAHARA & ASSOCIATES, INC.
ENGINEERING CONSULTANTS

DEPARTMENT OF WATER SUPPLY
MAUI COUNTY
WAILUKU, MAUI, HAWAII

KAUPAKALUA WELL
STORAGE TANK

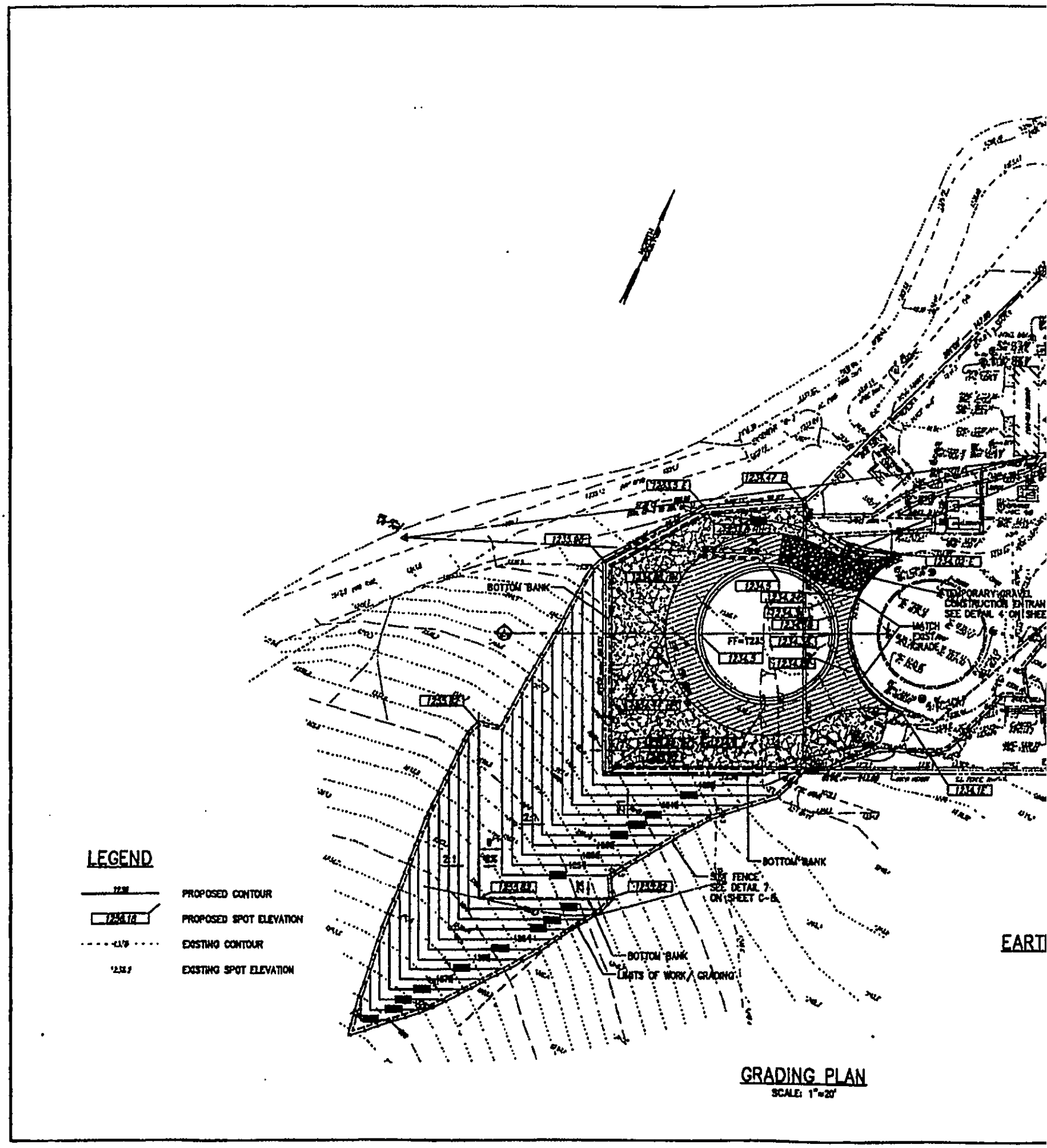
GRADING PLAN

APPROVED
DATE
JOB NO. 83-12

SHEET __ OF __ SHEETS

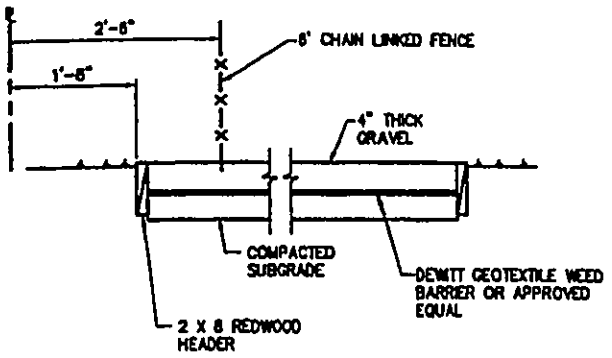
C-4

EXHIBIT "A"



GRADING PLAN

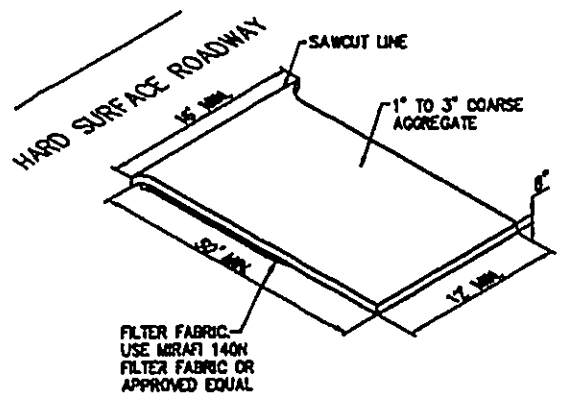
SCALE: 1"=20'



NOTES:
1. GRAVEL SURFACE TO FOLLOW THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SECTION 31-AGGREGATE BASE COURSE.
2. GRAVEL SURFACE TO BE COMPACTED TO AT LEAST 95% OF ASTM-D 1557 MAXIMUM DRY DENSITY.

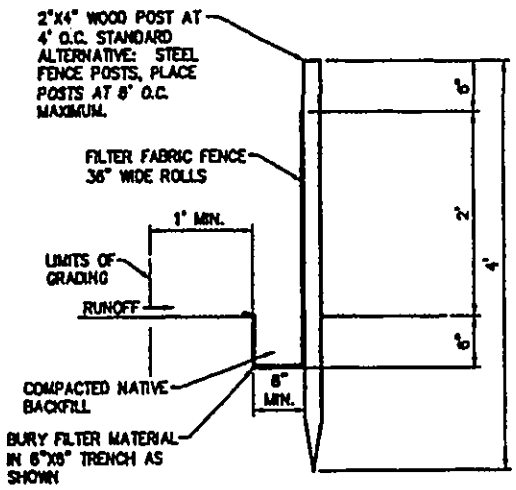
3 / C-8 GRAVEL SURFACE TYPICAL SECTION

N.T.S.



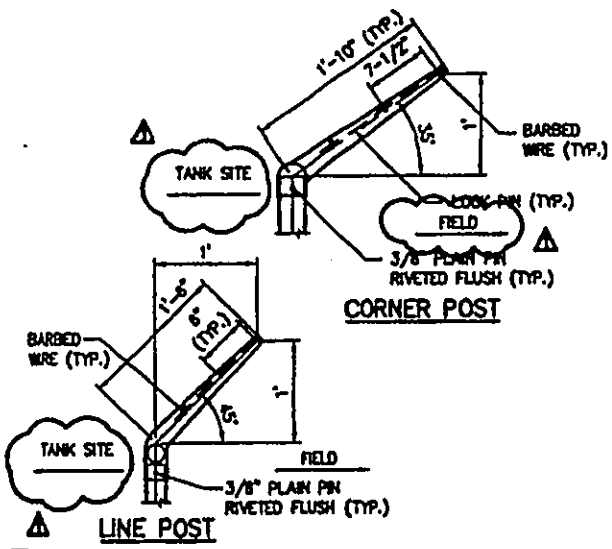
4 / C-8 TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

N.T.S.



7 / C-8 SEDIMENT FENCE DETAIL

N.T.S.



8 / C-8 3 STRAND EXTENSION ARM DETAIL

N.T.S.

APPROVED

APRIL 2006

NO.	DATE	DESCRIPTION	APPROVED
1	11/01/05	DWS COMMENTS	

REVISIONS

OKAHARA & ASSOCIATES, INC.
ENGINEERING CONSULTANTS

DEPARTMENT OF WATER SUPPLY
MAUI COUNTY
KAHULUI, MAUI, HAWAII

KAUPAKALUA WELL STORAGE TANK

DETAILS

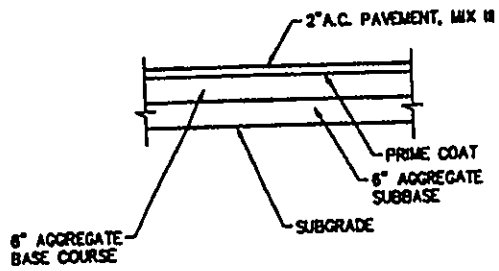
APPROVED

JOB NO. 03-13

DATED

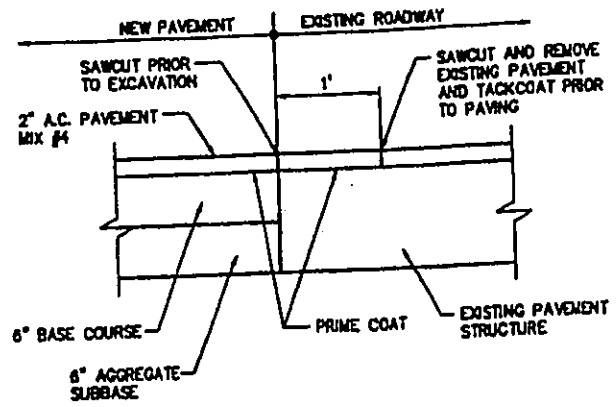
SHEET __ OF __ SHEETS

EXHIBIT "B" C-8

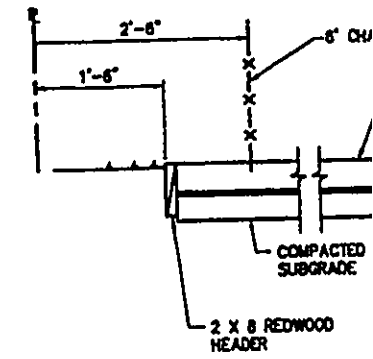


NOTE:
1) BASE & SUBBASE COURSE, COMPACTED SUBGRADE, SHALL BE COMPACTED TO AT LEAST 95% OF ASTM D 1557 MAX. DRY DENSITY.
2) SCARIFY SUBGRADE TO A DEPTH OF 8", MOISTURE CONDITION TO ABOVE OPTIMUM MOISTURE, COMPACT TO 95% OF ASTM D 1557 MAX. DRY DENSITY.

1 C-8 TYPICAL A.C. PAVEMENT SECTION
N.T.S.

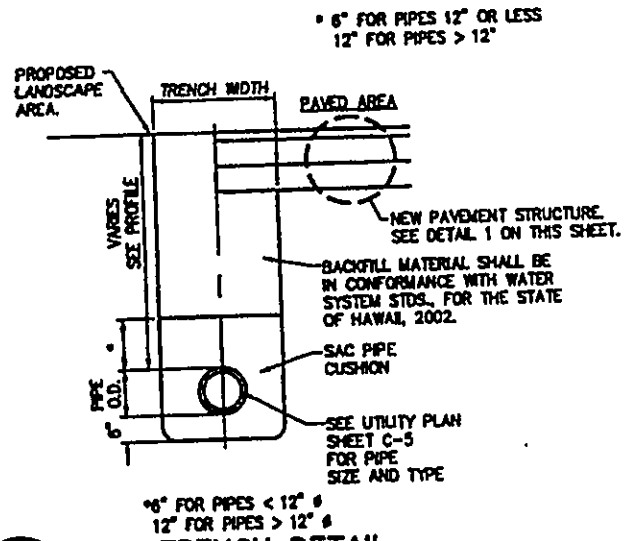


2 C-8 SAWCUT DETAIL FOR ROADWAY
N.T.S.

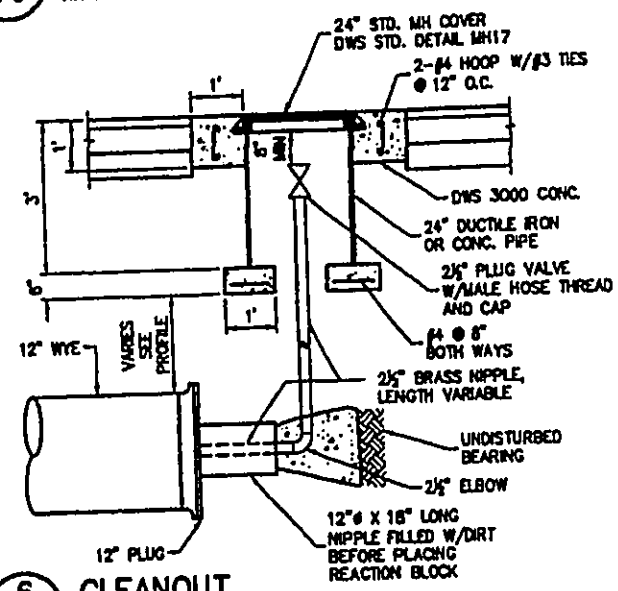


NOTES:
1. GRAVEL SURFACE TO FOLLOW THE STAN
WORKS CONSTRUCTION, SECTION 31-A
2. GRAVEL SURFACE TO BE COMPACTED T
MAXIMUM DRY DENSITY.

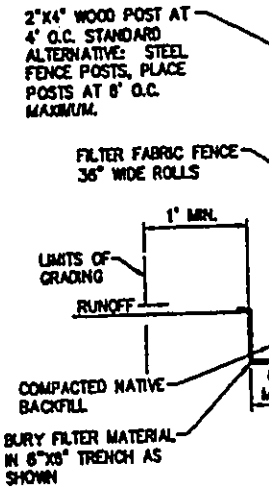
3 C-8 GRAVEL SURFACE
N.T.S.



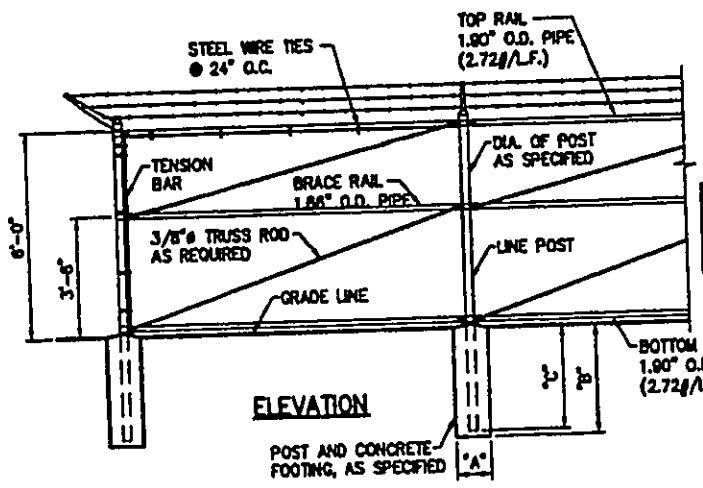
5 C-8 PIPE TRENCH DETAIL
N.T.S.



6 C-8 CLEANOUT
N.T.S.



7 C-8 SEDIMENT FENCE
N.T.S.



LINE AND CORNER POSTS

FENCE HEIGHT	LINE POST O.D.	CORNER POST O.D.	TYPE POST	"A" DIAM.	"B" DEPTH	"C" POST DEPTH
6'-0" TO 7'-0"	2.375	2.875	LINE	12"	36"	36"
			CORNER	12"	36	36"

9 C-8 6' HIGH CHAINLINK PERIMETER FENCE WITH 3 STRAND BARBED WIRE
N.T.S.

TRUE NORTH

NOT TO SCALE

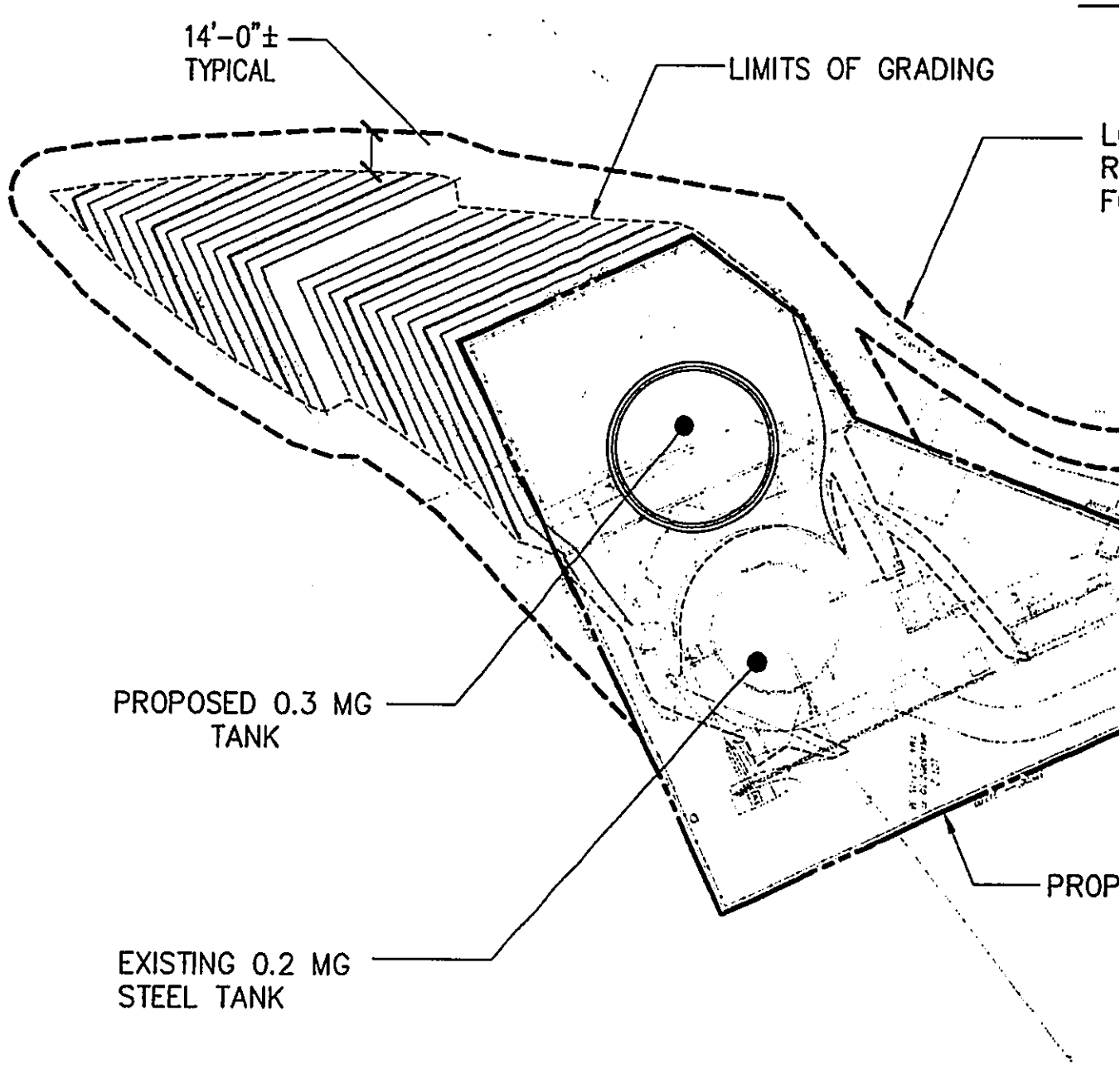
OF GRADING

LOCATION OF
RIGHT-OF-ENTRY
FOR CONSTRUCTION

ACCESS ROAD TO
KAUPAKALUA ROAD

PROPERTY LINE

EXHIBIT "C"


14'-0"±
TYPICAL
LIMITS OF GRADING
PROPOSED 0.3 MG
TANK
EXISTING 0.2 MG
STEEL TANK

DEC 1 9 2005

ALAN M. ARAKAWA
Mayor

GLENN T. CORREA
Director

JOHN L. BUCK III
Deputy Director

(808) 270-7230
Fax (808) 270-7934

DEPARTMENT OF PARKS & RECREATION

700 Hali'a Nakoa Street, Unit 2 , Wailuku, Hawaii 96793

December 12, 2005

Munekiyo & Hiraga, Inc.
Attention: Tara Nakashima
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Nakashima:

SUBJECT: Proposed Kaupakalua Well Storage Tank
Haiku, Maui
TMK (2) 2-7-15:038

We have reviewed the Draft Environmental Assessment for the proposed Kaupakalua Pump Control Tank and have no comments to offer at this time.

Thank you for the opportunity to comment. Should you have any questions, please feel free to contact me or Mr. Patrick Matsui, Chief of Planning and Development, at 270-7387.

Sincerely,

GLENN T. CORREA
Director

c: Patrick T. Matsui, Chief of Planning and Development

DEC 2 3 2005

POLICE DEPARTMENT
COUNTY OF MAUI

ALAN M. ARAKAWA
MAYOR

OUR REFERENCE
YOUR REFERENCE

55 MAHALANI STREET
WAILUKU, HAWAII 96793
(808) 244-6400
FAX (808) 244-6411

THOMAS M. PHILLIPS
CHIEF OF POLICE

KEKUHAUPIO R. AKANA
DEPUTY CHIEF OF POLICE

December 20, 2005

Ms. Tara Nakashima
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

Dear Ms. Nakashima:

SUBJECT: DEA for Proposed Kaupakalua Well Storage Tank at TMK (2) 2-7-15:038, Haiku, Maui, Hawaii

Thank you for your letter of December 6, 2005, requesting comments on the above subject.

We have reviewed the information submitted for this project and have no comments or recommendations to make at this time. We are returning the DEA which was submitted for our review. Thank you for giving us the opportunity to comment on this project.

Very truly yours,

Acting Assistant Chief Charles Hirata
for: Thomas M. Phillips
Chief of Police

c: Mr. George Tengan, Dept. of Water Supply

JAN 10 2006

Maui Electric Company, Ltd. • 210 West Kamehameha Avenue • PO Box 398 • Kahului, Maui, HI 96733-6898 • (808) 871-8461

January 6, 2006

Munekiyo & Hiraga, Inc.
Attention: Tara Nakashima, Planner
305 High Street, Suite 104
Wailuku, HI 96793

Dear Ms. Nakashima,

Subject: Proposed Kaupakalua Well Storage Tank –
Draft Environmental Assessment (EA)
Kaupakalua Road, Haiku
TMK: (2) 2-07-015: 038

Thank you for allowing us to comment on the subject project.

In reviewing our records and the information transmitted, Maui Electric Company (MECO) has no objections to the proposed project at this time. Should the customer's current electrical demand requirement increase, we ask that the consultant contact our office as soon as possible.

If you have any questions or concerns, please call Ray Okazaki at 871-2340.

Sincerely,

Neal Shinyama
Manager, Engineering

NS/ro:lh

JAN 1 0 2006

LINDA LINGLE
GOVERNOR OF HAWAII

GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186
E-mail: oeqc@health.state.hi.us

January 6, 2006

Mr. George Tengan, Director
Department of Water Supply
County of Maui
200 South High Street
Wailuku, Hawaii 96793

Dear Mr. Tengan:

Subject: Draft Environmental Assessment for the Kaupakalua Well Site Storage Tank, Maui

Thank you for the opportunity to review the subject document. We have the following comments.

1. Please illustrate the visual impacts of the proposed tank from public places such as roads and lookouts. Photos of existing conditions taken from public viewpoints are helpful in evaluating visual impacts. Provide renderings of future structures superimposed on photos of existing views. We recommend constructing and painting the tank with materials and colors that blend with the surroundings. We also recommend landscaping with native Hawaiian plants to reduce the visual impacts.

2. This project should comply with sections 103D-407 and 408 of Hawaii Revised Statutes concerning the use of indigenous plants and recycled glass.

Should you have any questions, please call Jeyan Thirugnanam at 586-4185.

Sincerely,

Genevieve Salmonson
Director

c: Munekiyo and Hiraga

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO

KARLYNN KAWAHARA

January 27, 2006

Genevieve Salmonson, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

SUBJECT: Proposed Kaupakalua Well Site Storage Tank at Haiku, Maui, TMK (2) 2-7-15:038

Dear Ms. Salmonson:

Thank you for your letter dated January 6, 2006, commenting on the Draft Environmental Assessment for the proposed Kaupakalua well site storage tank. In response to your comments, we would like to note the following:

1. Please find attached two (2) photos, one of the existing tank from the access road, near Kaupakalua Road, leading to the project site and the other of the access road leading to Kaupakalua Road, taken near the site. See Exhibit "A". As you will see, the existing tank is barely visible off of Kaupakalua Road, the closest public roadway. (Kaupakalua Road is located 922 feet from the tank). The view is blocked by trees and a cattle guard. From Kaupakalua Road, the new tank will be located, immediately behind the existing tank on the same parcel. It will resemble the existing tank, which is green in color and be composed of the similar construction material, most likely steel, which will blend into the surrounding pasture grass. No new landscaping within the tank property is proposed. The existing vegetation character surrounding the facility will not be altered.

2. The project will comply with Hawaii Revised Statute, Section 103D-408, relating to the use of recycled glass as construction material, where applicable.

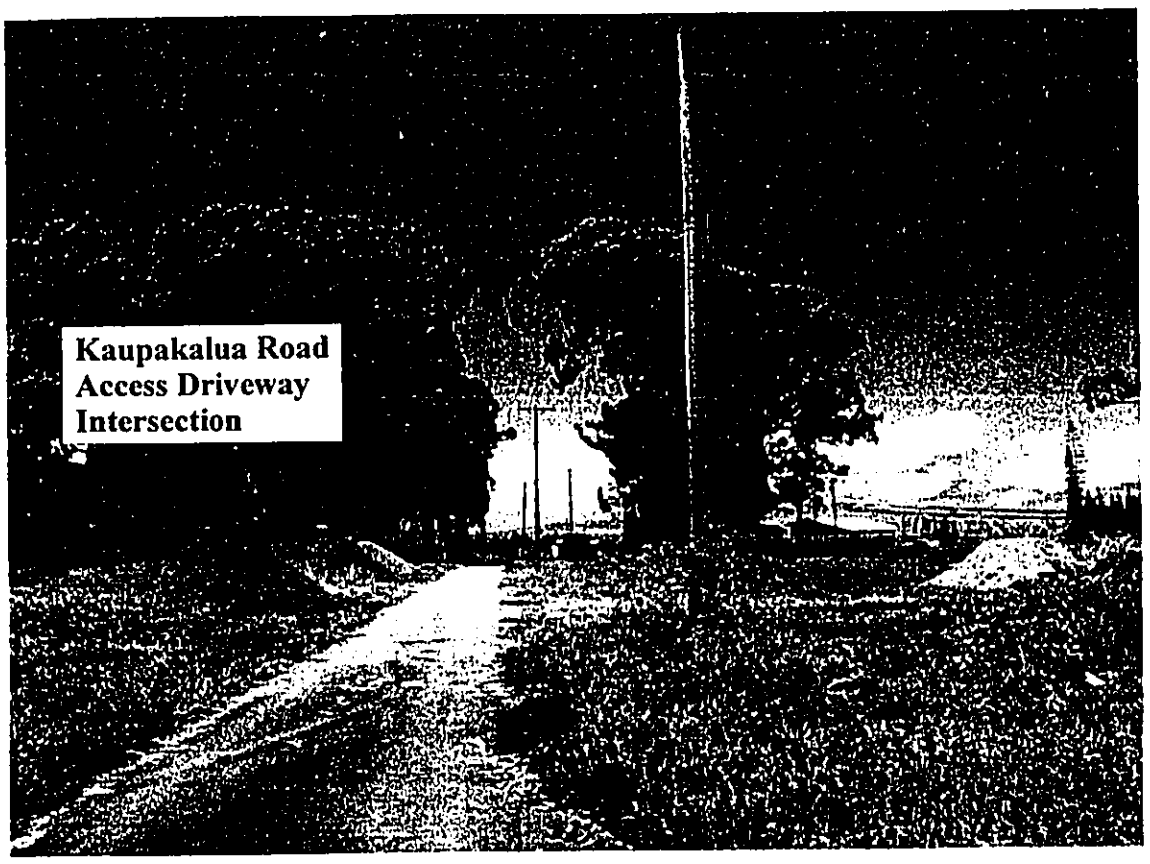
305 High Street, Suite 104 Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 planning@mhinconline.com

Should you have any further questions or concerns, please call me at (808) 244-2015.

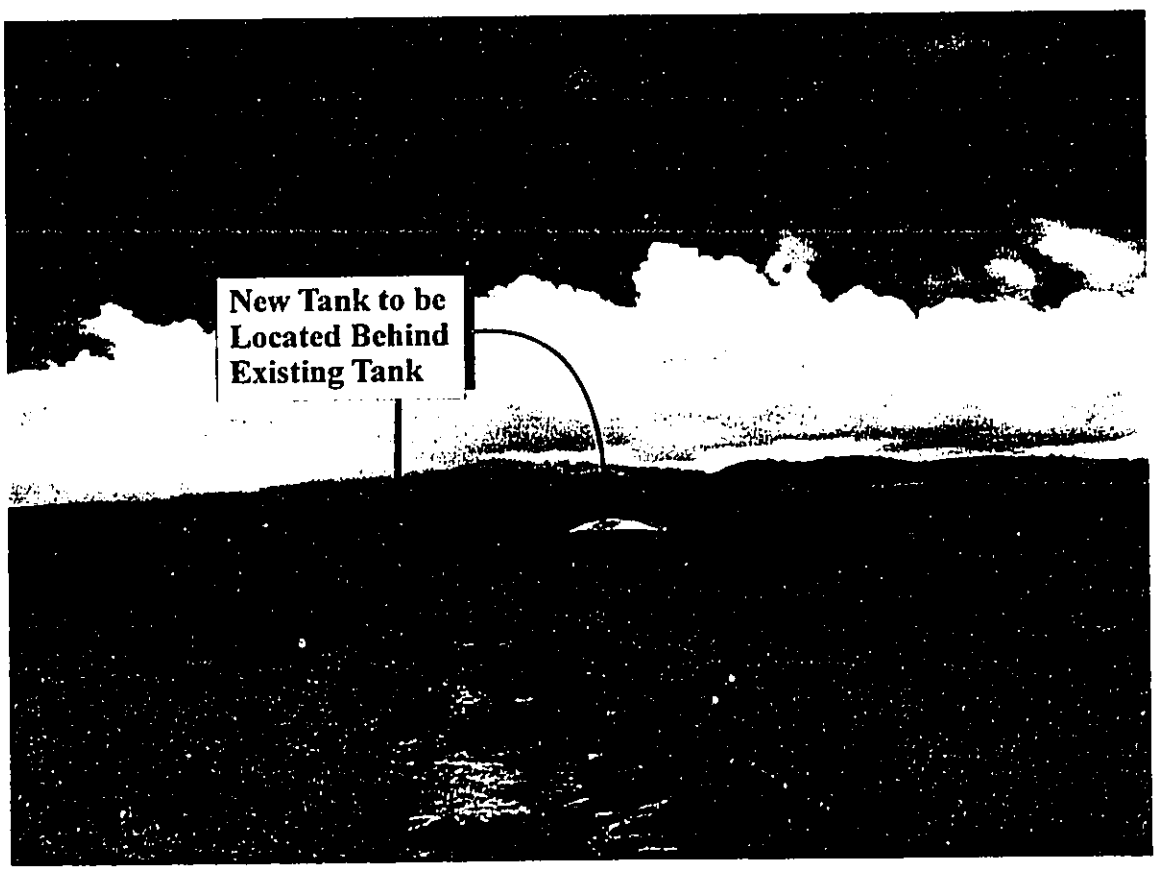
Very truly yours,

Tara K. Nakashima, Planner

TKN:yp
Enclosure
cc: Larry Winter, County of Maui, Department of Water Supply (w/enclosure)
Jerry Fujita, KAI Hawaii (w/enclosure)



View toward Kaupakalua Road from
midpoint of access driveway



View of project site (from access driveway)
near Kaupakalua Road

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO

KARLYNN KAWAHARA

February 7, 2006

Genevieve Salmonson, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

SUBJECT: Proposed Kaupakalua Well Site Storage Tank at Haiku, Maui, TMK (2) 2-7-15:038

Dear Ms. Salmonson:

In our letter dated January 27, 2006, we incorrectly stated in comment number one (1) that the new tank will be located behind the existing tank and incorrectly referenced the proposed location of the tank in the second photo on Exhibit "A." The new tank will actually be located adjacent to the existing tank. Please see the attached, revised Exhibit "A."

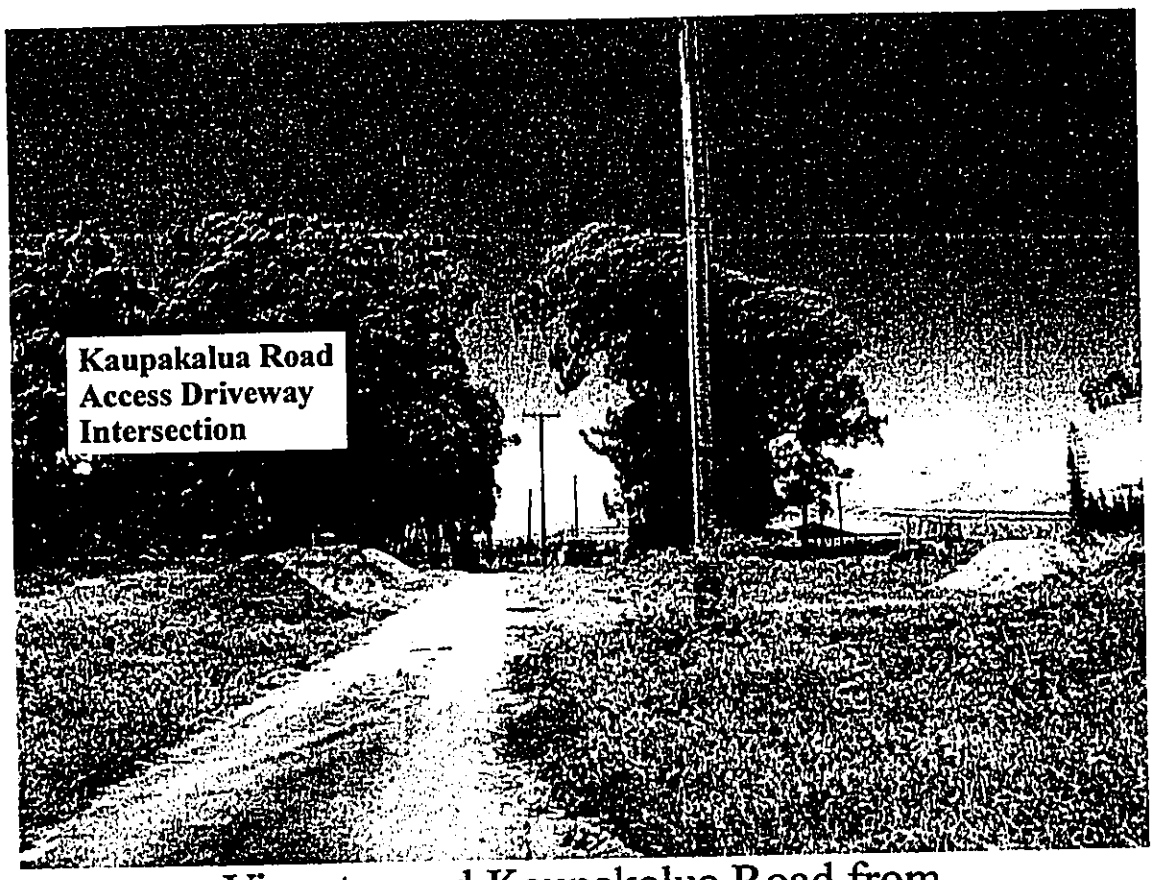
Should you have any further questions or concerns, please call me at (808) 244-2015.

Very truly yours,

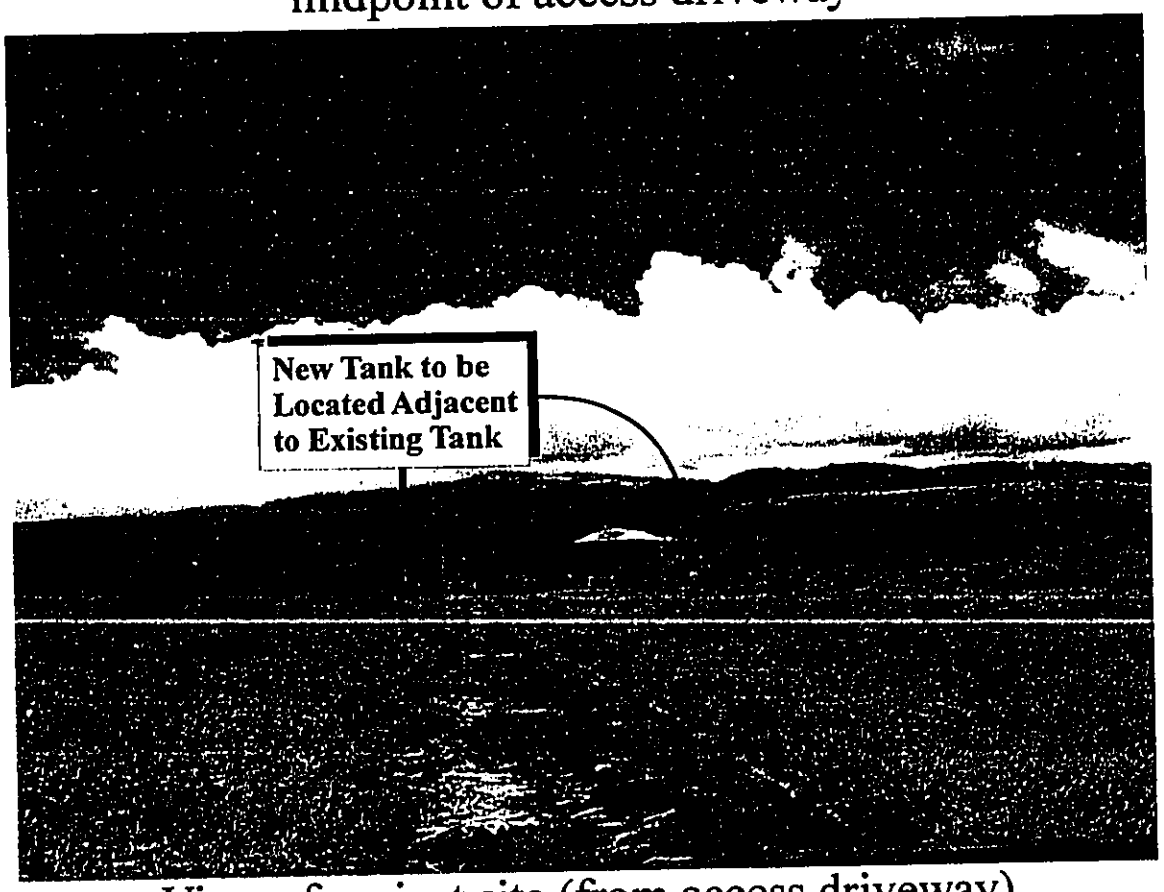
Tara K. Nakashima, Planner

TKN:yp
Enclosure
cc: Larry Winter, County of Maui, Department of Water Supply (w/enclosure)
Jerry Fujita, KAI Hawaii (w/enclosure)
F:\DATA\KAIHI\Kaupakalua\oeqc.revltr.wpd

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 fax: (808)244-8729 · planning@mhinconline.com



View toward Kaupakalua Road from
midpoint of access driveway



View of project site (from access driveway)
near Kaupakalua Road

Revised Exhibit "A"

ALAN M. ARAKAWA
Mayor

MILTON M. ARAKAWA, A.I.C.P.
Director

MICHAEL M. MIYAMOTO
Deputy Director

Telephone: (808) 270-7845
Fax: (808) 270-7955

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL MANAGEMENT
200 SOUTH HIGH STREET, ROOM 322
WAILUKU, MAUI, HAWAII 96793

RALPH NAGAMINE, L.S., P.E.
Development Services Administration

DAVID TAYLOR, P.E.
Wastewater Reclamation Division

CARY YAMASHITA, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

TRACY TAKAMINE, P.E.
Solid Waste Division

January 31, 2006

Mr. Michael Munekiyo, A.I.C.P.
MUNEKIYO & HIRAGA, INC.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Dear Mr. Munekiyo:

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR
KAUPAKALUA PUMP CONTROL TANK
TMK (2) 2-7-015:038

We reviewed the subject application and have the following comment:

1. The project shall comply with the "Rules for the Design of Storm Drainage Facilities in the County of Maui". The applicant shall provide verification that there is an adequate outlet for the increase in runoff or the additional runoff shall be stored onsite.

If you have any questions regarding this memorandum, please call Milton Arakawa at 270-7845.

Sincerely,

/s/ MILTON M. ARAKAWA, A.I.C.P.
Director of Public Works and
Environmental Management

MMA:MMM:jm/da
S:\LUCA\CZM\Kapaukalua_pump_ctrl_tank_dea_27015038_jm.wpd

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO

KARLYNN KAWAHARA

February 8, 2006

Milton Arakawa, Director
County of Maui
Department of Public Works
and Environmental Management
200 South High Street, Room 322
Wailuku, Hawaii 96793

SUBJECT: Proposed Kaupakalua Pump Control Tank, located at TMK 2-7-015:038, Haiku, Maui

Dear Mr. Arakawa:

Thank you for your letter dated January 31, 2006, commenting on the Draft Environmental Assessment for the proposed pump control tank in Kaupakalua. In response to your comments, we would like to note the following:

I. The project will comply with the *"Rules for the Design of Storm Drainage Facilities in the County of Maui."* Prior to building permit approval, the applicant shall provide verification that there is an adequate outlet for the increase of runoff or additional runoff shall be stored onsite.

Thank you again for your input. Should you have any other questions in regards to this proposal, please do not hesitate to call me at 244-2015.

Very truly yours,

Tara K. Nakashima, Planner

TKN:yp
cc: Larry Winter, Department of Water Supply
Jerry Fujita, KAI Hawaii, Inc.
F:\DATA\KAIH\Kaupakalua\dpwem.deares.wpd

planning environment

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 · planning@mhinconline.com

References

References

County of Maui, The General Plan of the County of Maui 1990 Update, 1990.

County of Maui, Haiku-Paia Community Plan, May 1995.

County of Maui, Maui County Data Book 2004, September 2004.

County of Maui, Wastewater Reclamation Division, Wastewater Flow Standards, September 28, 1993.

Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map (FIRM 1500030185D), May 15, 2002.

Land Study Bureau, Detailed Land Classification—Island of Maui, May 1967.

U.S. Department of Agriculture, Soil Conservation Service, Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii, 1972.

Wailuku Agribusiness Co., Inc., "Memorandum Re: July 2005, Department of Water Supply Pumping Report", August 10, 2005.

Appendices

Appendix A

Preliminary Design Report

PRELIMINARY DESIGN REPORT

of

KAUPAKALUA WELL STORAGE TANK

Kaupakalua Road (TMK 2-7-15:34)
Haiku, Maui, Hawaii

For

DEPARTMENT OF WATER SUPPLY
County of Maui
Wailuku, Hawaii

August 26, 2005

Prepared By:

KAI HAWAII
STRUCTURAL & FORENSIC ENGINEERS

31 N. Pauahi Street, 2nd Floor, Honolulu, HI 96817
Telephone: (808) 533-2210
FAX: (808) 533-2686
E-mail: mail@kaihawaii.com

KAUPAKALUA WELL STORAGE TANK
PRELIMINARY DESIGN REPORT
TABLE OF CONTENTS

BASIS OF DESIGN

A. Purpose

The purpose of this Preliminary Design Report is to document the design scope of work, present the design criteria and design concept for the project. This report includes design concept drawings, a description of the design concept and list of materials proposed and a preliminary estimate of construction cost.

B. Scope of Work

The intent of the project is to design and construct a second storage tank on the Kaupakalua well site to increase the storage capacity for the service area. A existing 200,000 gallon capacity steel tank was constructed in 2000. The project included plans to provide a 300,000 gallon tank in the future. This project is to design and have constructed this second tank. It will be located just West of the existing tank on the same land parcel.

The project will include grading the tank pad and stabilizing the resulting cut slopes, preparation of the subsurface soil beneath the tank, construction of the 300,000 gallon tank, install all tank appurtenances, piping and controls to connect to the existing potable water system and pumps on the site.

A new 12" ductile iron influent line will be constructed from the existing influent line to the new storage tank. A new 12" ductile iron effluent line will be constructed from the new storage tank to the existing effluent line. A new 12" ductile iron bypass line will be constructed from the new influent line to the new effluent line. Gate valves will be provided on the new influent, effluent and bypass lines.

Site improvements include grading, paving an access road around the proposed tank, extending the perimeter fencing to include the proposed tank, and providing a drainage course for surface water as part of the scope of work. The building pad for the proposed tank will require grading the adjacent hill outside of the property lines in order to eliminate the need for a retaining wall. The slope of the cut will be 2 horizontal to 1 vertical and follow the recommendations of the project's geotechnical consultant, Geolabs, Inc. for slope stability. The Maui County, Department of Water Supply will secure a construction easement from the property owner and their consent in order for the contractor to perform the grading work on the property adjacent to the project site. The proposed site plan showing the limits of grading are shown on Exhibit 1 of this report.

Boundary corners of the land parcel will be staked in the area where the perimeter fence will be extended and a topographic survey will be conducted as part of the design. A Chapter 343, Hawaii Revised Statutes environmental assessment will be performed for the proposed project, it is anticipated an archaeological inventory or assessment will be required as part of this. A geotechnical investigation and design report will be included as part of the project design.

C. Design References

The project design will be in accordance with the following references. The more stringent design requirements will be used from the listed references. The entire design shall conform to the latest applicable rules and regulations of the County of Maui, the State of Hawaii, Federal and other applicable laws, codes, rules or regulations.

1. Maui County Code
2. Rules and Regulations of the Department of Water Supply, County of Maui
3. Water System Standards, 2002
4. ACI 350R-01, "Requirements for Environmental Engineering Concrete Structures", 2001, American Concrete Institute
5. ACI 350.3R-01, "Seismic Design of Liquid-Containing Concrete Structures", 2001, American Concrete Institute
6. PCA Circular Concrete Tanks Without Prestressing, 1993, Portland Cement Association

D. Project Site Description

The project site is located along Kaupakalua Road in Haiku, Maui, Hawaii. The asphalt access road to the reservoir site was constructed as part of the 200,000 gallon tank project. Chain link fencing surround the existing tank site and control building (See Photo No. A-1, Appendix A). The concrete block masonry control building, the two pumps, two electric transformers, a water well, a stainless steel at-grade water tank with geodesic aluminum dome roof (See Photo No. A-2, Appendix A) and a paved access road past the control building and around the tank are included on the site. A catch basin located adjacent to the well on the site drains area surface water (See Photo No. A-3, Appendix A). Most of the site however, appears to drain by surface flow across the site.

The proposed tank location will require the perimeter chain link fence to be extended and an adjacent hill to be cut in order to create the tank pad (See Photo Nos. A-4 and A-5 in Appendix A).

The second pump and control wiring for the proposed tank were installed as part of the original tank project in anticipation of this 300,000 gallon tank being constructed in the future.

E. Proposed Materials

1. 300,000 Gallon Reservoir

The design of the tank will be conventional cast-in-place reinforced concrete construction with a flat cast-in-place concrete roof, interior concrete columns, a concrete floor slab and continuous ring footing below

the slab. A bid alternative for a stainless steel tank with a cast-in-place concrete floor slab and all appurtenances matching the existing tank will be part of the project documents.

2. Piping
   a. Ductile Iron Pipe: AWWA C151, Class 52
   b. Ductile Iron fittings: AWWA C110, Class 350 Mechanical Joint.
   c. Gasket: AWWA C111
   d. Polyethylene Wrap: AWWA C105, 8 mil
   e. Coating: Bituminous coating, 1-mil
   f. Lining: AWWA C104, cement mortar lining
   g. Gate Valves: AWWA C509, resilient-seated gate valves, 200 psi working pressure
   h. Air Release Valves: AWWA C512, 3/4-inch
   i. Pre-Cast Concrete Strom Drain Manhole

All materials incorporated into the water system shall comply with Water System Standards 2002, as amended. All materials used for road construction and restoration and drain manholes shall comply with the Standard Specifications for Public Works Construction September 1986, as amended.

F. Preliminary Construction Cost Estimate

Based upon the proposed conceptual design concept and described scope of work, the estimated preliminary construction cost is $1,165,000. See Appendix B for cost estimate breakdown.

An estimated cost for a stainless steel tank matching the dimensions and appurtenances of the concrete tank is based in a similar capacity stainless steel tank, but with a larger diameter and shallower water depth. Adjusting for these differences the cost of the stainless steel tank alternative is estimated at $500,000. By comparison, the cost of the concrete tank is estimated at just under $600,000.

G. Project Schedule

In order to meet the project-funding deadline, advertising of the project for bid is required to occur on October 7, 2005, only 63 days after the Notice to Proceed. This will allow a bid opening date of November 11, 2005. The proposed project schedule has been provided in Appendix C.

H. Environmental Assessment Requirement

The project involves County funds, therefore an environmental assessment in accordance with Chapter 343, Hawaii Revised Statutes will be prepared for the proposed project. It is anticipated an archaeological inventory or assessment will be required as part of the assessment.

The project does not involve federal funding and is not a part of the Drinking Water State Revolving Fund project, therefore attendant coordination or analysis of Federal Cross Cutters will not be required.

After receiving early consultation comments from agencies and organizations, a Draft Environmental Assessment (EA) will be prepared and filed with the Office of Environmental Quality Control (OEQC). The availability of the Draft EA will be published in the OEQC's Environmental Notice. A 30-day public comment period will allow agencies, organizations and individuals the opportunity of providing comments on the proposed action. Following the public comment period, the Final EA will be prepared and filed with the OEQC. It is anticipated that the Final EA will be published in the Environmental Notice as a Finding of No Significant Impact or FONSI.

I. Permits Required

The permits likely required for this project are listed below. The entire area of the project is in County of Maui owned property.

1. National Pollutant Discharge Elimination System (NPDES) Dewatering Permit
2. Grading Permit

In addition, we anticipate the State Historic Preservation and the Disability and Communication Access Board will review the project documents.

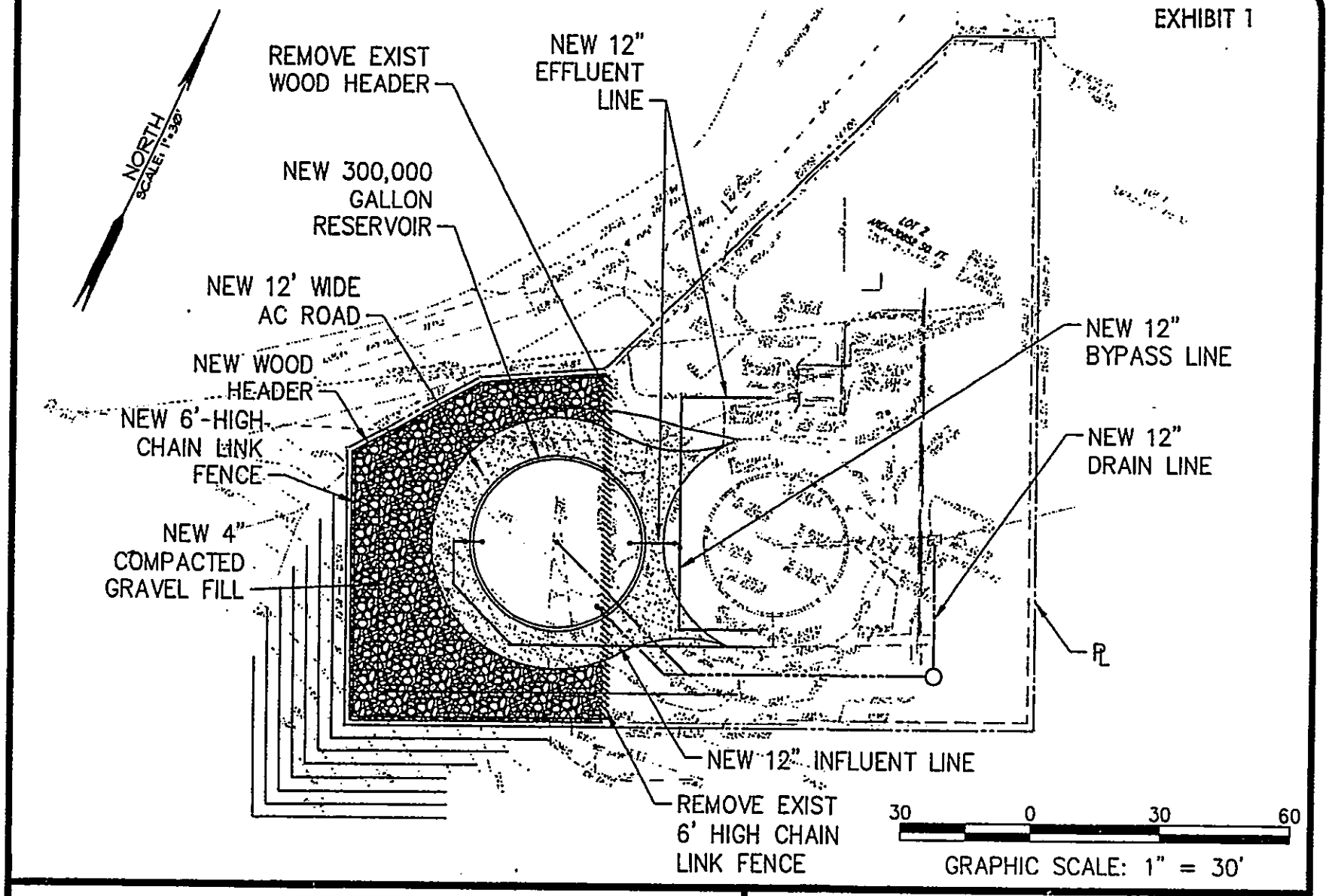
J. Easement Requirement

A temporary construction easement will be required to perform the proposed grading to create the tank pad. Required easement will be secured from the adjacent property owner by DWS.

K. Unknown Costs

Areas of possible unknown or unaccounted cost include the operating condition of the existing control building equipment and the booster pumps. Cost for rehabilitation or upgrading of existing equipment has not been accounted for in our construction cost estimate.

EXHIBIT 1



PROJECT	TITLE
KAUPAKALUA WELL STORAGE	SITE PLAN

APPENDIX A

Photo A-1: Control Building, Pumps and Transformer in foreground

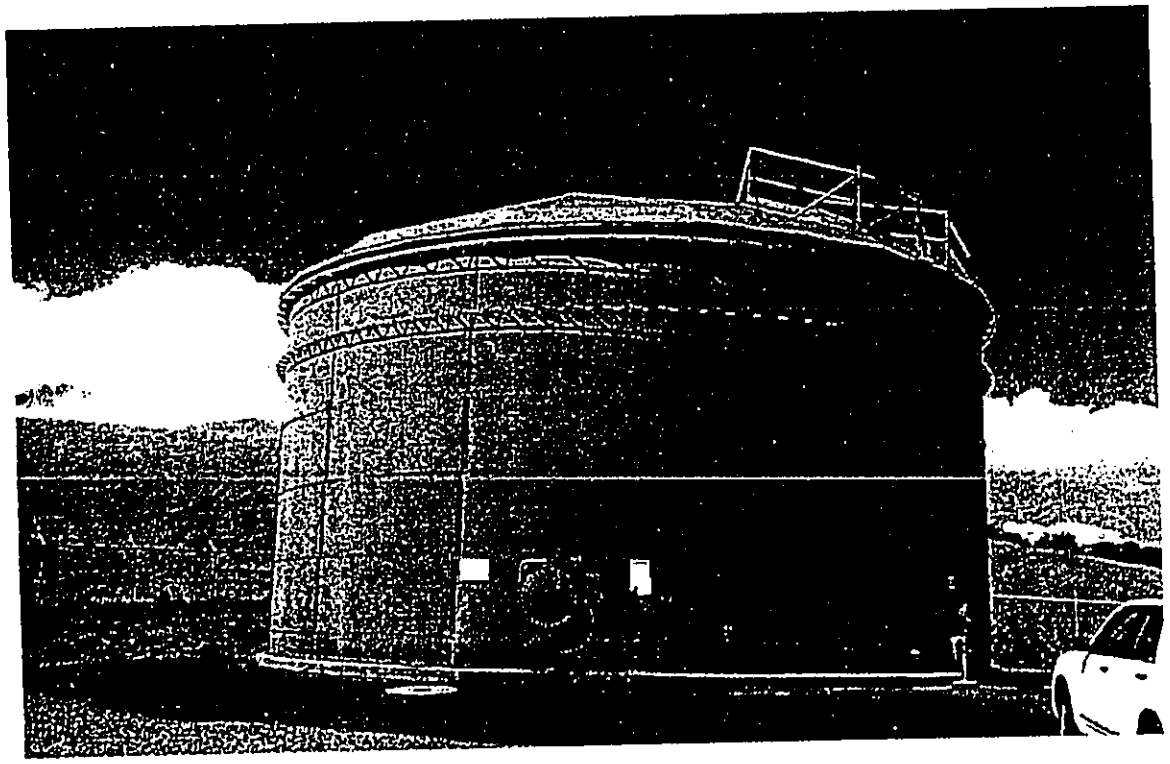


Photo A-2: Existing 200,000 Gallon Steel Reservoir

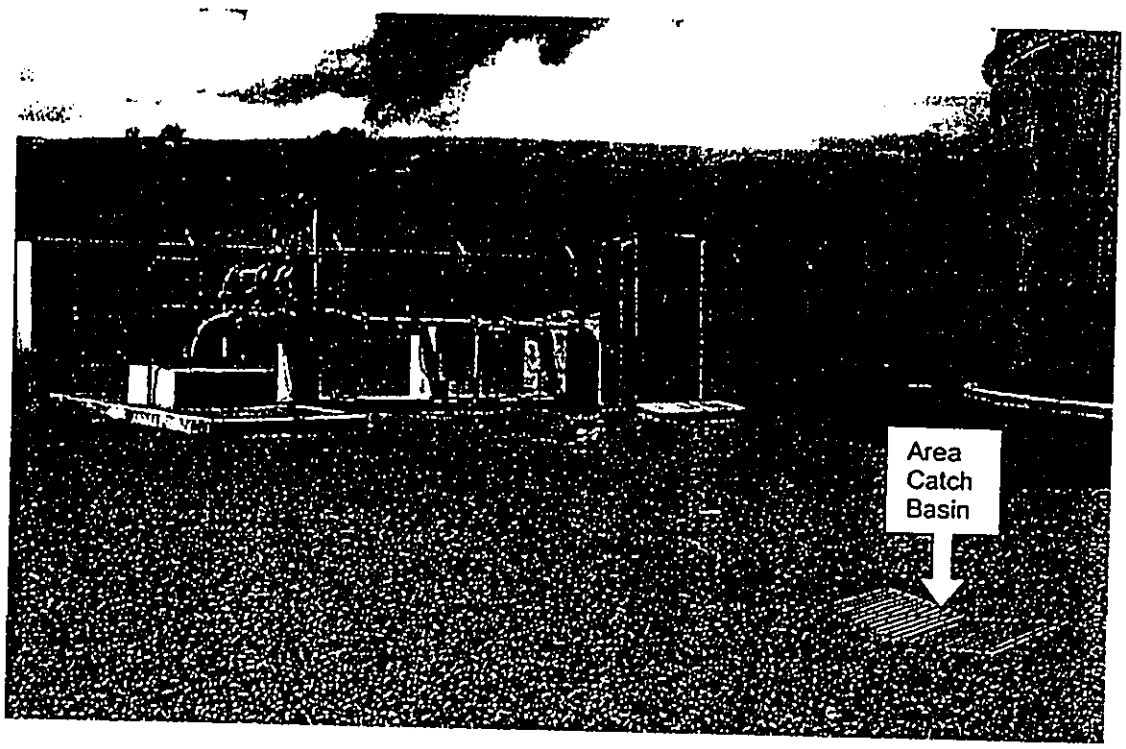


Photo A-3: Area Catch Basin Adjacent to Well Pump

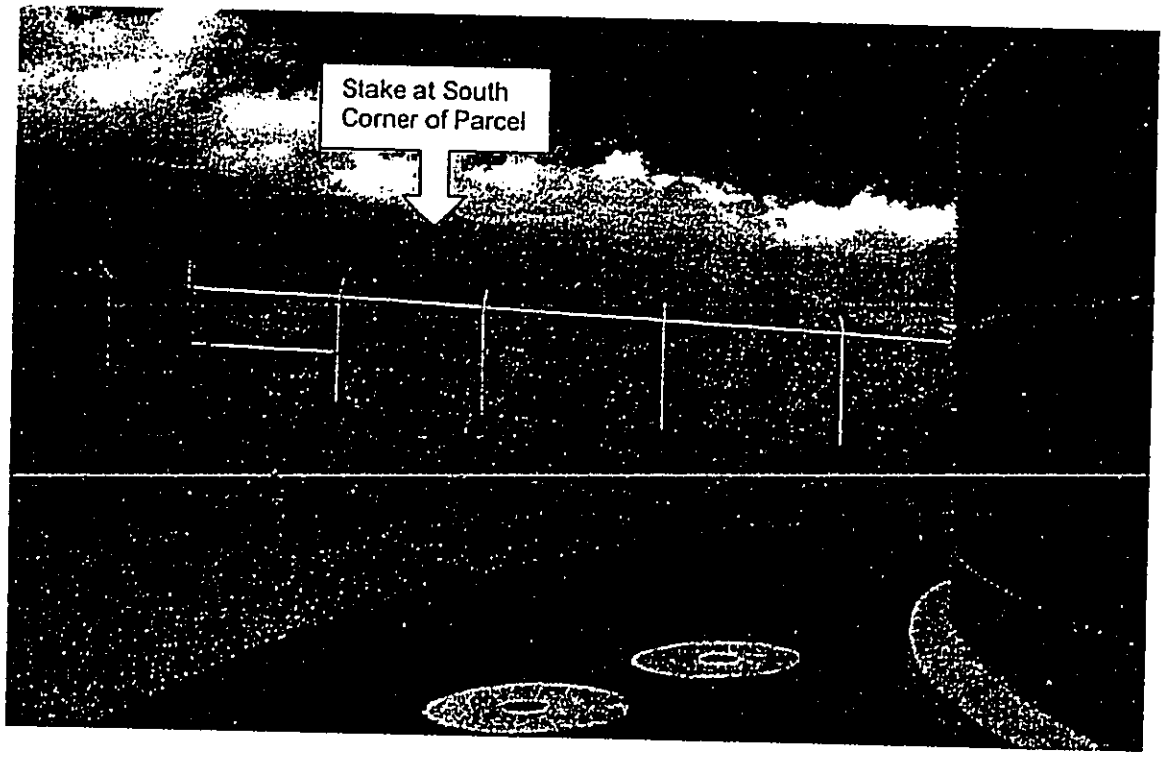


Photo A-4: South Corner of Parcel Viewed from South Side of Reservoir

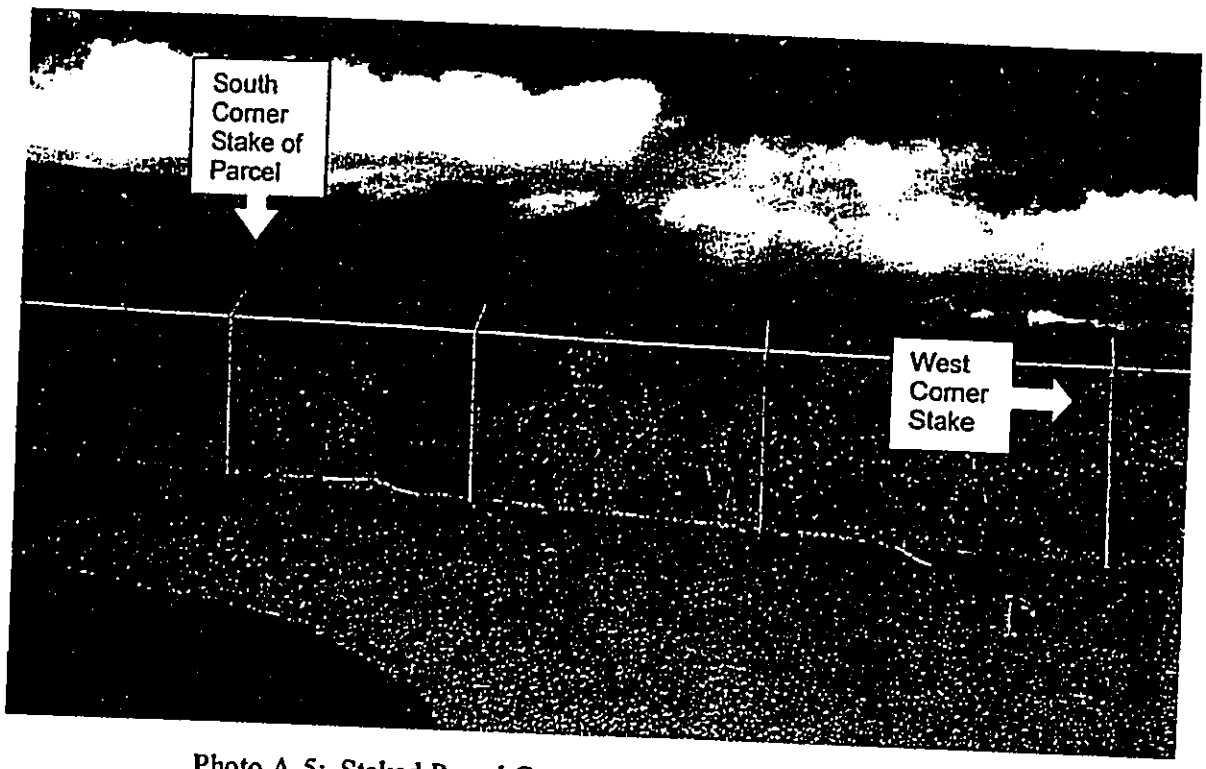


Photo A-5: Staked Parcel Corners from North Side of Reservoir

APPENDIX B

CONSTRUCTION COST ESTIMATE

KAI Hawaii, Inc.					Date: 04-Oct-05
Project Name:	Kaupakalua Well Storage Tank 300,000 Gallon Capacity	**Job #:** 1522	**Status of Design:** Pre-Final		
		Client DWS Maui (Job No. 03-12)			
Location:	Haiku, Maui, Hawaii	**Estimated By:** J. Chen		**Chkd By:** J. Fujita	

Project Description	**Quantity**		**Engineering Estimate**		**Section**
0.3 MG Circular Conventional Reinforced Reservoir	**No.**	**Unit**	**Unit Cost**	**Total**	**Total**
SITE WORK					
Demolition					
Clearing and Grubbing	1	LS	$5,000.00	$5,000	
Existing Chain Link Fence	105	LF	$20.00	$2,100	
Existing Paving Header	115	LF	$15.00	$1,725	
Earthwork					
Cut and Haul	3369	CY	$25.00	$84,225	
Embankment	24	CY	$15.00	$360	
Erosion & Dust Control	1	LS	$5,000.00	$5,000	
Construction					
Chain Link Fence	243	LF	$45.00	$10,935	
Redwood Header	245	LF	$15.00	$3,675	
Gravel Overlay	529	SY	$12.00	$6,348	
Paving					
AC Paving and Base Material	316	SY	$45.00	$14,220	
Total For Site Work					$133,588
PIPING and CONSTRUCTION					
Piping					
12" Ductile Iron Pipe	329	LF	$140.62	$46,264	
12" GV with Valve Box	2	EA	$3,000.00	$6,000	
1" PVC w/ Fittings	110	LF	$75.00	$8,250	
1" PVC Globe Valve w/ Valve Box	1	EA	$150.00	$150	
Construction					
Connect to Existing Inlet Box or Line	2	EA	$2,750.00	$5,500	
Drain Manhole	1	EA	$5,000.00	$5,000	
1" PVC Concrete Encasement	115	LF	$110.00	$12,650	
Disinfection					
Chlorination & Testing	1	LS	$8,000.00	$8,000	
Equipment					
Level Transmitter	1	LS	$8,000.00	$8,000	
Total For Piping and Construction					$99,814

CONSTRUCTION COST ESTIMATE

KAI Hawaii, Inc.				**Date:**	04-Oct-05
Project Name:	Kaupakalua Well Storage Tank 300,000 Gallon Capacity	**Job #:**	1522	**Status of Design:**	Pre-Final
		Client	DWS Maui (Job No. 03-12)		
Location:	Haiku, Maui, Hawaii	**Estimated By:**	J. Chen	**Chkd By:**	J. Fujita

Project Description	**Quantity**		**Engineering Estimate**		**Section**
0.3 MG Circular Conventional Reinforced Reservoir	**No.**	**Unit**	**Unit Cost**	**Total**	**Total**
RESERVOIR STRUCTURE					
Floor Slab					
6 1/2" Reinforced Concrete Slab & Ftgs.	110	CY	$750.00	$82,500	
Pipe Jackets	54	LF	$400.00	$21,600	
Waterstop - Slab Joint	58	LF	$15.00	$870	
Wall Base Joint	170	LF	$40.00	$6,800	
Walls					
16" Thick Wall	180	CY	$1,200.00	$216,000	
20" Square Concrete Columns	8	CY	$1,500.00	$12,000	
Waterstops - Wall Joints	85	LF	$15.00	$1,275	
Interior Coating	5850	SF	$8.00	$46,800	
Exterior Painting	3700	SF	$6.00	$22,200	
Roof Structure					
8" Thick Concrete Slab & Drop Panels	68	CY	$1,600.00	$108,800	
Roofing, Traffiic Pads & Flashing	2470	SF	$7.00	$17,290	
Waterstop - Slab Joints	55	LF	$18.00	$990	
Louver Vents	1	EA	$1,500.00	$1,500	
Roof Hatches	2	EA	$5,000.00	$10,000	
2-Rail S.S. Guardrailing	26	LF	$70.00	$1,820	
Galv. Steel Ext. Ladder & Saf-T-Climb	1	LS	$10,000.00	$10,000	
Exterior Ladder Security Guard	1	LS	$3,500.00	$3,500	
SS Overflow Supports	1	LS	$6,000.00	$6,000	
SS Interior Ladder & Saf-T-Climb	1	LS	$15,000.00	$15,000	
Level Indicator System	1	LS	$12,000.00	$12,000	
Total For Structure					$596,945

Total For Sections		$830,347
	15% Contingency	$124,552
GRAND TOTAL ESTIMATE		$954,899
	SAY	**$960,000**

Bid Alternate: Stainless Steel Tank w/ Aluminum Dome Roof $540,000

PRELIMINARY CONSTRUCTION COST ESTIMATE

APPENDIX B

KAI Hawaii, Inc.				**Date:**	22-Aug-05
Project Name:	Kaupakalua Well Storage Tank 300,000 Gallon Capacity	**Job #:**	1522	**Status of Design:**	Preliminary
		Client	DWS Maui (Job No. 03-12)		
Location:	Haiku, Maui, Hawaii	**Estimated By:**	J. Chen	**Chkd By:**	J. Fujita

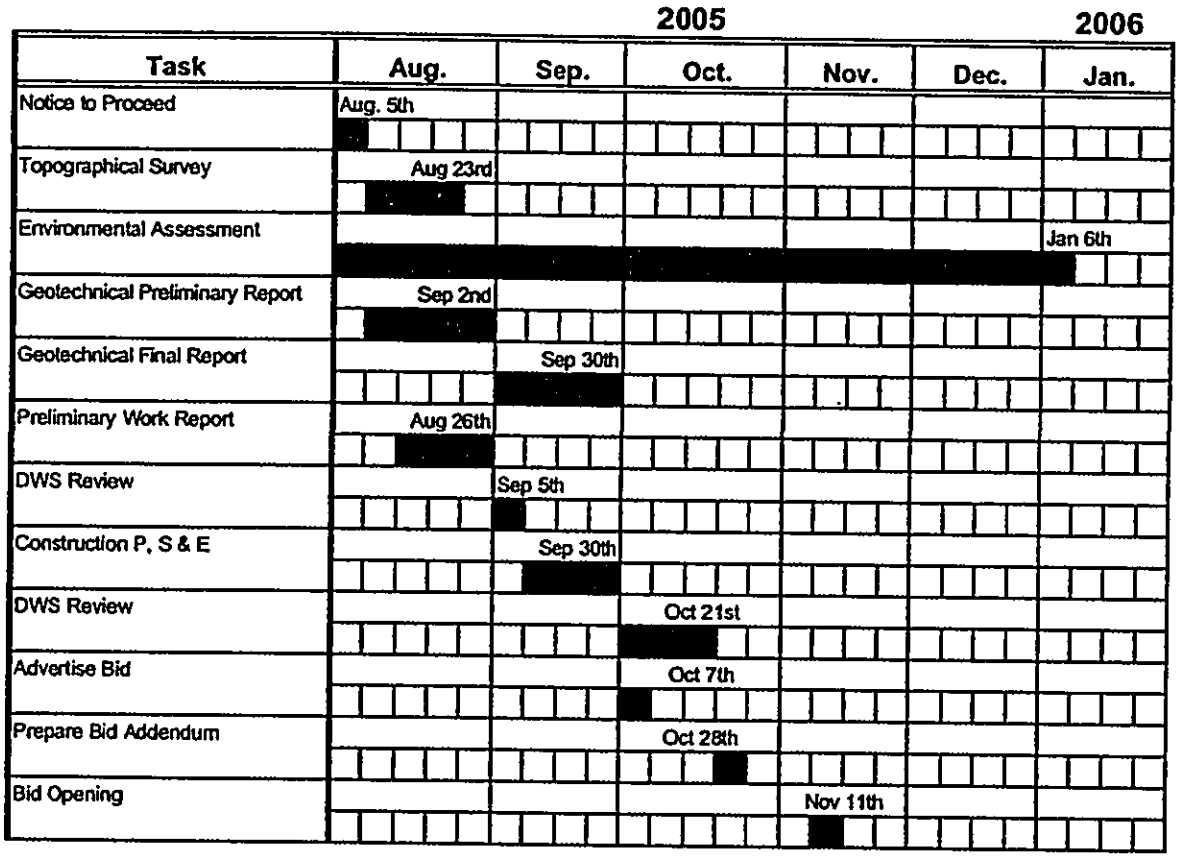
Project Description	**Quantity**		**Engineering Estimate**		**Section**
0.3 MG Circular Conventional Reinforced Reservoir	**No.**	**Unit**	**Unit Cost**	**Total**	**Total**
SITE WORK					
Demolition					
Clearing and Grubbing	1	LS	$1,500.00	$1,500	
Existing Chain Link Fence	106	LF	$20.00	$2,120	
Existing Paving Header	107	LF	$15.00	$1,605	
Earthwork					
Cut and Haul	8100	CY	$30.00	$243,000	
Paving					
AC Paving and Base Material	294	SY	$45.00	$13,230	
Total For Site Work					$261,455
PIPING and CONSTRUCTION					
Piping					
12" Ductile Iron Pipe	435	LF	$125.00	$54,375	
12" GV with Valve Box	3	EA	$3,000.00	$9,000	
Construction					
Connect to Existing Line	2	EA	$750.00	$1,500	
Drain Manhole	1	EA	$5,000.00	$5,000	
Disinfection					
Chlorination & Testing	1	LS	$5,000.00	$5,000	
Total For Piping and Construction					$74,875
RESERVOIR STRUCTURE					
Floor Slab					
6 1/2" Reinforced Concrete Slab & Ftgs.	110	CY	$750.00	$82,500	
Pipe Jackets	54	LF	$400.00	$21,600	
Waterstop - Slab Joint	58	LF	$15.00	$870	
Wall Base Joint	170	LF	$40.00	$6,800	
Walls					
16" Thick Wall	180	CY	$1,200.00	$216,000	
20" Square Concrete Columns	8	CY	$1,500.00	$12,000	
Waterstops - Wall Joints	85	LF	$15.00	$1,275	
Louver Vents	1	EA	$600.00	$600	
Interior Coating	5850	SF	$8.00	$46,800	
Exterior Painting	3700	SF	$6.00	$22,200	
Roof Structure					
8" Thick Concrete Slab & Drop Panels	68	CY	$1,600.00	$108,800	
Roofing, Traffiic Pads & Flashing	2470	SF	$7.00	$17,290	
Waterstop - Slab Joints	55	LF	$18.00	$990	
Roof Hatches	2	EA	$5,000.00	$10,000	
2-Rail S.S. Guardrailing	16	LF	$70.00	$1,120	
Galv. Steel Ext. Ladder & Saf-T-Climb	1	LS	$10,000.00	$10,000	
Exterior Ladder Security Guard	1	LS	$3,500.00	$3,500	
SS Overflow Supports	1	LS	$6,000.00	$6,000	
SS Interior Ladder & Saf-T-Climb	1	LS	$15,000.00	$15,000	
Level Indicator System	1	LS	$12,000.00	$12,000	
Total For Structure					$595,345
Total For Sections					$931,675
				25% Contingency	$232,919
GRAND TOTAL ESTIMATE					$1,164,594
				SAY	**$1,165,000**

APPENDIX C

KAUPAKALUA WELL STORAGE TANK

DWS Job No. 03-12 Project Schedule

KAI Hawaii, Inc.



Revision 1 - 8/18/05

Appendix B-1

Archaeological Assessment Report

AN ARCHAEOLOGICAL ASSESSMENT SURVEY REPORT FOR A PORTION OF LAND IN WEST KAUPAKALUA *AHUPUA`A*, MAKAWAO DISTRICT, ISLAND OF MAUI

(TMK: (2) 2-7-15: 38)

Prepared at the direction of:

KAI Hawaii, Inc.
Honolulu, Hawaii

Prepared on behalf of:

The County of Maui
Department of Water supply,
Wailuku, Maui

Prepared by:

Xamanek Researches, LLC
Pukalani, Maui
Erik Fredericksen

October 18, 2005

ABSTRACT

Xamanek Researches, LLC conducted an archaeological assessment survey of a 0.708 acre portion of land in West Kaupakalua *Ahupua`a*, Makawao District, Island of Maui in September 2005 (TMK: (2) 2-7-15: 38). Project plans call for the construction of a 300,000 gallon water tank essentially adjacent to an existing 200,000 gallon County of Maui Department of water Supply facility.

There was no evidence of significant material culture remains located during the assessment study. One access road cut face (associated with a pasture) was inspected and spot screened, yielding no findings of significance. Based on the results of this assessment survey, no further work appears warranted at this time.

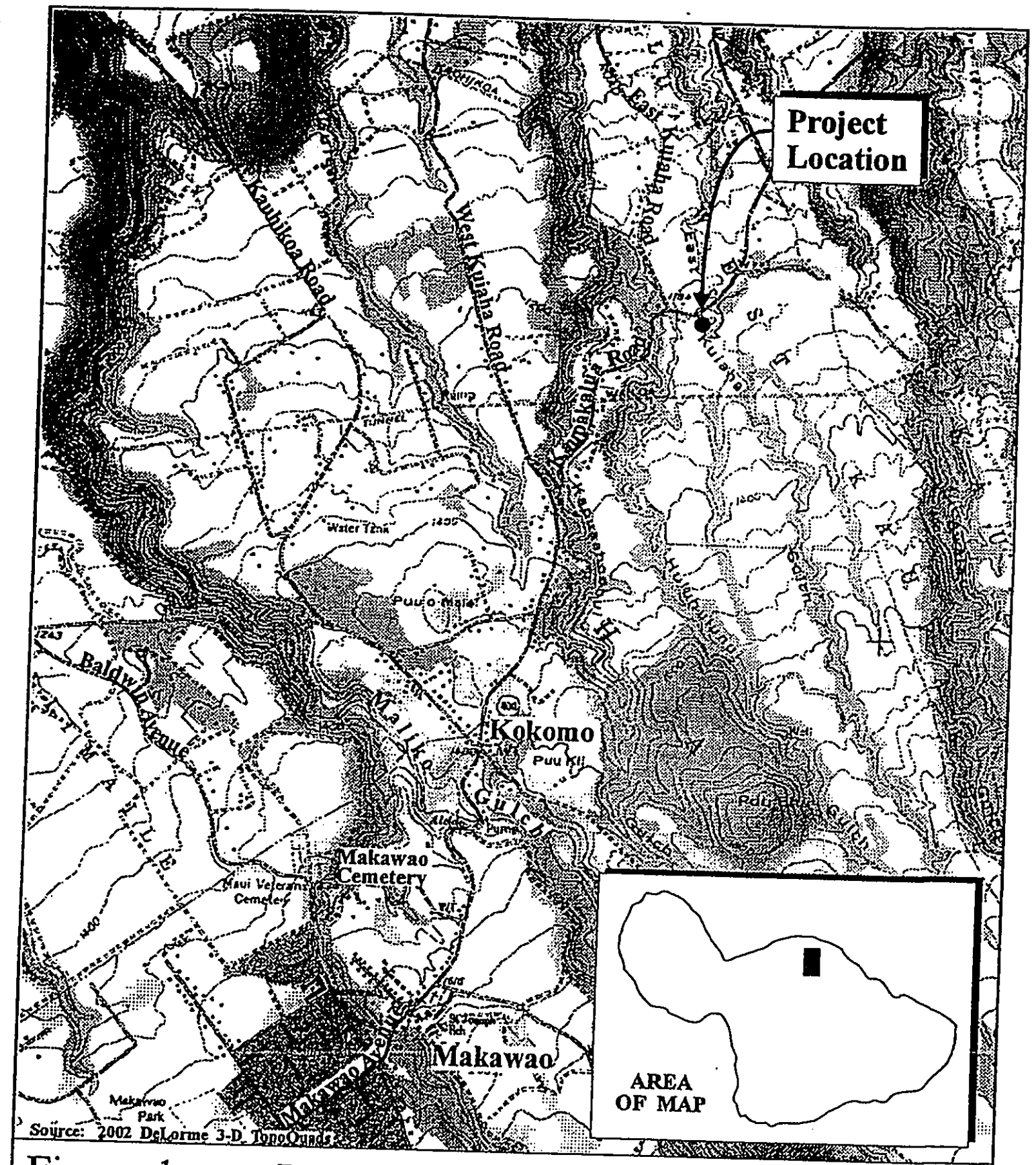


Figure 1 Proposed Kaupakalua Well Storage Tank
Regional Location Map

NOT TO SCALE

Prepared for: County of Maui, Dept. of Water Supply

MUNEKIYO & HIRAGA, INC.

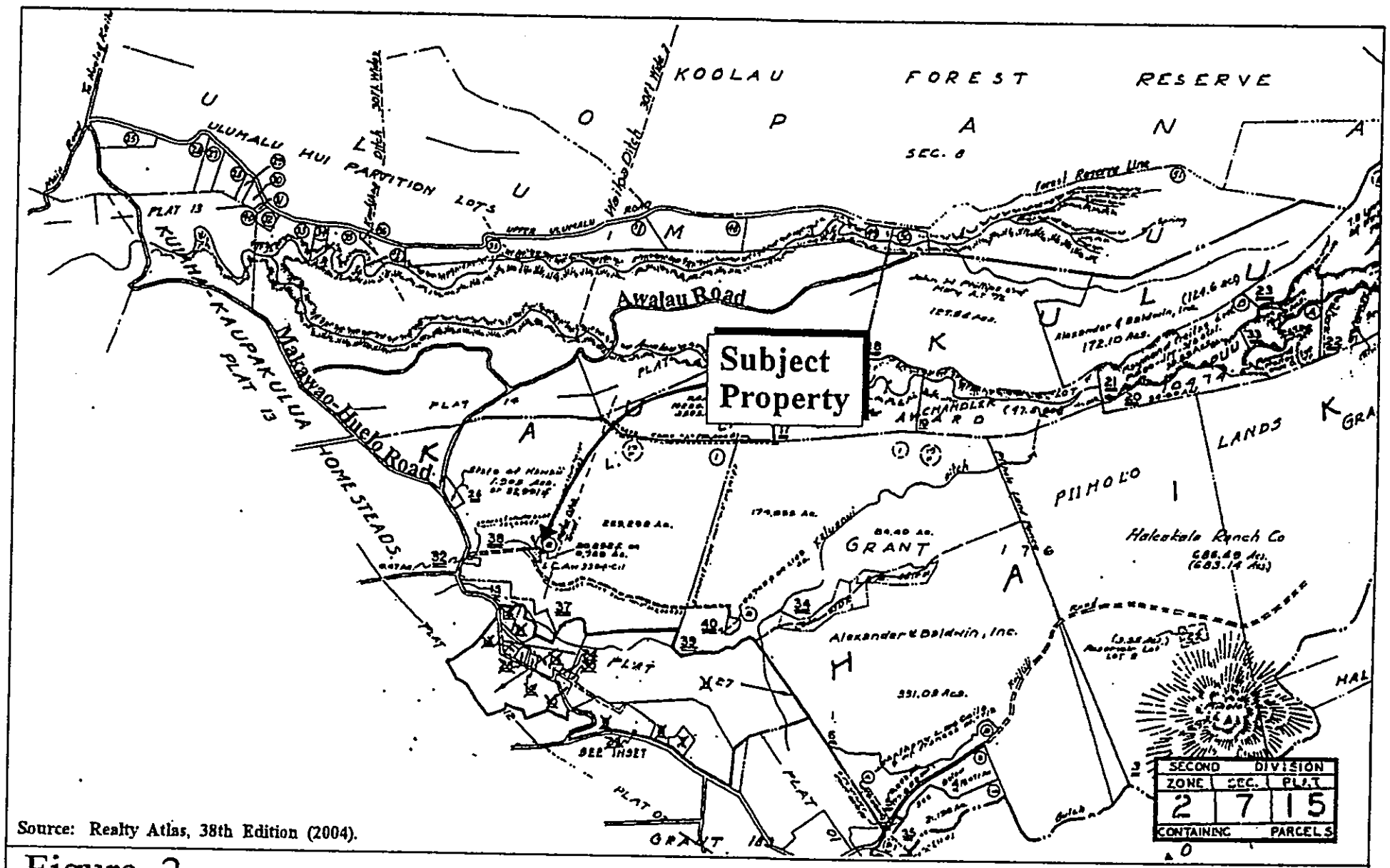


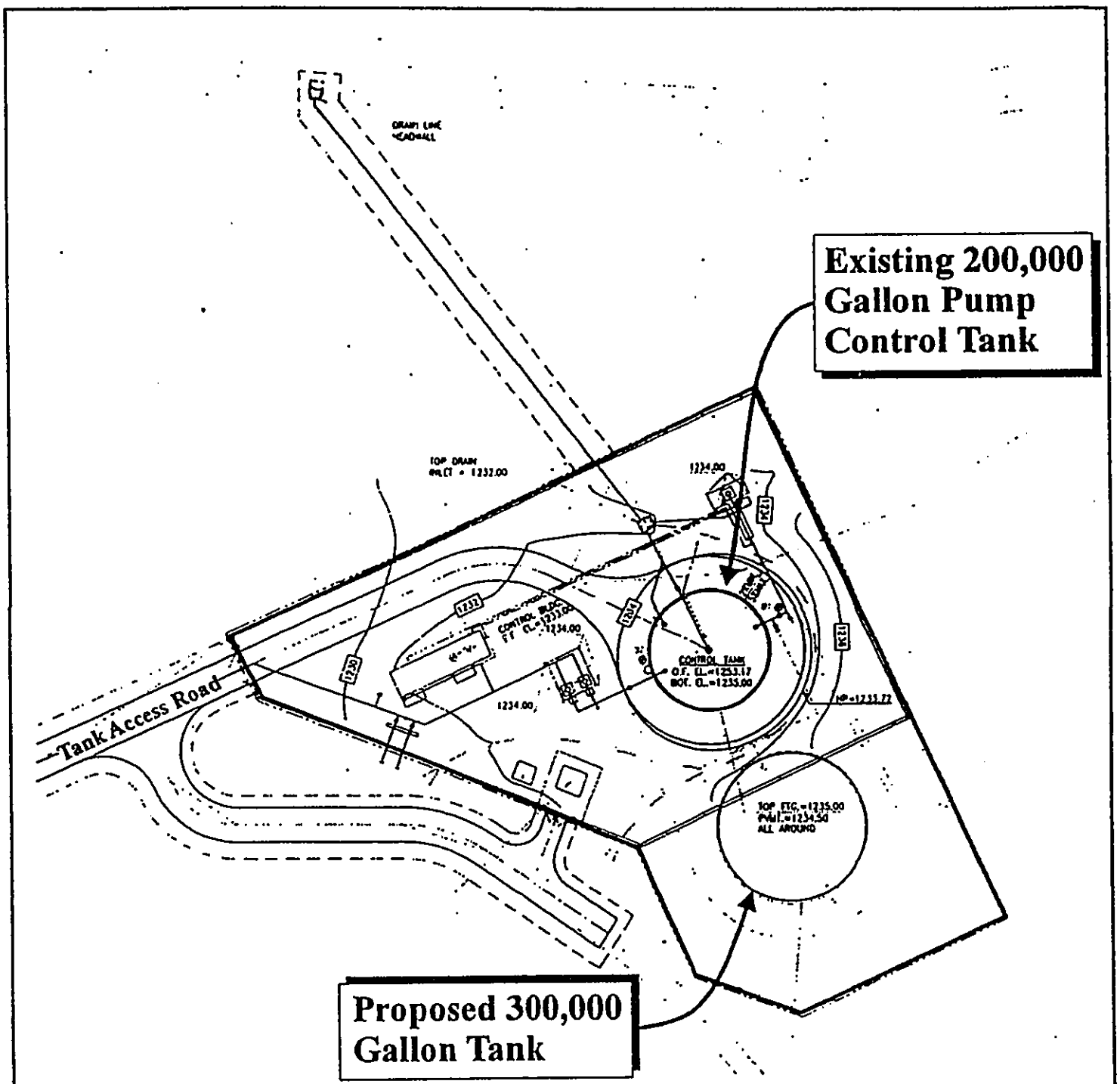
Figure 2

Proposed Kaupakalua Well Storage Tank
Site Location Map

0 1000 Feet
500 2000

Prepared for: County of Maui, Dept. of Water Supply

MUNEKIYO & HIRAGA, INC



Source: Austin, Tsutsumi & Associates, Inc.

Figure 3 Proposed Kaupakalua Well Storage Tank
Plot Plan

NOT TO SCALE

Prepared for: County of Maui, Dept. of Water Supply

MUNEKIYO & HIRAGA, INC.

INTRODUCTION

Ms. Tara Nakashima, staff planner with Munekiyo & Hiraga, Inc. contacted Xamanek Researches, LLC during the early summer of 2005 about an archaeological survey for a planned County of Maui Department of Water Supply (DWS) project in Ha`iku. Known as the Kaupakulua Water Tank project, this DWS work would construct an additional 300,000 gallon tank essentially adjacent to an existing DWS 200,000 gallon water tank. This project was located in West Kaupakalua *Ahupua`a*, Makawao District, Maui (TMK: (2) 2-7-15: 38). DWS plans called for the construction of the water tank, as well as an additional section of access road and some new fencing. Given that the project was located in an area that had been previously disturbed, it was anticipated that subsurface excavation might not be necessary.

We were asked to submit a proposal for the scope of work for this project, and submitted our cost estimate to the DWS for review. We were subsequently given the notice to proceed with this small inventory survey.

As noted above, the project area lies in West Kaupakalua *ahupua`a,* Makawao District, Maui (Figures 1, 2 and 3). The County of Maui owns this parcel of land. The field portion of this archaeological assessment study was carried out during September of 2005. The following report presents the results of this archaeological assessment survey. The report has been prepared on behalf of the County of Maui Department of Water Supply, at the direction of KAI Hawaii, Inc.

STUDY AREA

As indicated above, the study area lies in West Kaupakalua *Ahupua`a*, Makawao District, Maui (TMK: (2) 2-7-15: 38). The survey area lies adjacent to and south east of Kaupakalua Road. The 0.708 acre project area contained an existing DWS 200,000 gallon water tank facility, which was surrounded by pasture at the time of our study. Vegetation noted in the general vicinity of the study area included Christmas berry (Schinus terebinthefolius), guava (Psidium guajava), Eucalyptus (Eucalyptus spp.), and a few Java plum (Eugenia cuminii) trees, as well as non-native grasses, annual weeds and naturalized non-native flowers.

The study parcel lies on the windward side of East Maui. Precipitation typically ranges from 80 to 120 inches per year on this portion of Maui. The climate is dominated by trade wind patterns. The study area is located in an actively utilized pasture, which lies to the east of Kaupakalua Road (Photographs 1 & 2). The approximate elevation of the project area is 1,235 feet AMSL. . Soils present on the parcel are identified as Haiku silty clay (HaB). Typically they occur on 3 to 7 percent slope. Runoff is slow, and the erosion hazard slight (Foote, 1972, p. 32). This soil is used primarily for pineapple production and pasture lands on this part of Maui.

The plant cover in the area surrounding the proposed impact zone essentially consists of non-native grasses and succulent weeds. This impact zone is estimated to be less than 0.25 acre (see Figure 3, Photographs 3, 5 and 6).

The subject property is owned by the County of Maui. The area to the north (*makai*) has been under pineapple cultivation and/or pasturage for decades. In addition, some pineapple is still grown in fields to the northwest and northeast. However, much of the area in the near vicinity of the project area consists of pasture and, increasingly, residential homes.

Background Information

In precontact times, the land surrounding the study area probably supported a modest population. There are several gulches in the general area that likely contained streams that flowed at least during the wet months of the year. In addition this portion of Maui typically receives 80-120 inches of annual precipitation. Some of the larger gulches in the Ha`iku area such as Maliko Gulch to the northwest offered an extensive valley that was ideal for the production of wetland *kalo*, breadfruit, *kukui* nut trees, yams and sugar cane. The coastal area provided excellent fishing grounds. Sweet potatoes were probably grown on the flat land between valleys as well. Handy and Handy mention Maliko Stream and adjacent *ahupua`a* (1972, p. 498):

"Hamakua Poko (Short Hamakua) and Hamakua Loa (Long Hamakua) are two coastal regions where gently sloping kula lands intersected by small gulches come down to the sea along the northern coast line of East Maui. Maliko Stream flowing in a gulch that widens and has a flat bottom to seaward, in pre-sugar-plantation days had a considerable number of lo`i. East of Maliko the number of named ahupua`a is evidence of habitation along this coast. Kuiaha Gulch, beyond Maliko, has a good stream and there were probably a few lo`i. Two kama`aina at Ke`anae said that there were small lo`i developments watered by Ho`olawa, Waipi`o, Hanehoi, Hoalua, Kailua and Na`ili`ilihaele Streams, all of which flow in deep gulches. Stream taro was probably

planted along the watercourses well up into the higher kula land and forest taro throughout the lower forest zone. The number of very narrow ahupua`a thus utilized along the whole of the Hamakua coast indicates that there must have been a very considerable population. This would be despite the fact that it is an area of only moderate precipitation because of being too low to draw rain out of trade winds flowing down the coast from the rugged and wet northeast Ko`olau area that lies beyond. It was probably a favorable region for breadfruit, banana, sugar cane, arrowroot; and for yams and `awa in the interior. The slopes between gulches were covered with good soil, excellent for sweet potato planting. The low coast is indented by a number of small bays offering good opportunity for fishing. The Alaloa, or "Long-road," that went around Maui passed through Hamakua close to the shore, crossing streams where the gulches opened to the sea."

Kamakau (1992, p. 23) relates the story of Kiha-a-Pi`i-lani concerning a famine that befell Kula and Makawao.... "and the people subsisted on *laulele, pualele, popolo* and other weeds." The legend goes that he set out to clear a patch of ferns in order to plant sweet potatoes to ease the famine. In a single night he cleared a patch so large that it was thought to be impossible to obtain enough slips to plant such a vast area. Kamakau continues (Ibid., p. 24):

"The people said skeptically of this great undertaking, 'Where will he find enough sweet-potato slips to cover the patch?' Next day Kiha-a-Pi`i-lani went to Hamakuapoko and Hali`imaile to ask for potato slips. The natives gave him whole patches of them wherever he went. ...Kiha-a-Pi`i-lani returned to his dwelling place with his huge bundle of sweet-potato slips. One bundle of slips was sufficient to cover every mound of the whole field. No sooner were they planted than a shower fell, and the chief who made efforts at farming was pleased."

Although Hamakua did not appear to be an area with a great deal of political importance, Kamakau relates that during the wars waged by the great Hawaii chief Kalani`opu`u, (Ibid., p. 91): "Ka-lani-`opu`u decided to go on to Ko`olau, Maui, where food was abundant.[1] He went to Ka`anapali and fed his soldiers upon the taro of Honokahua. ... At Hamakualoa Ka-lani-`opu`u landed and engaged in battle, but Ka-hekili hastened to the aid of his men, and they put up such a fierce fight that Ka-lani-`opu`u fled in his canoes. Landing at Ko`olau he slew the common people and maltreated the captives by urinating into their eyes."

During Kamehameha's conquest of Maui—Wailuku and Iao Valley—in c. 1790, Kamehameha's vast canoe fleet landed at various places along the Hamakua coast (Ibid., p. 112). Research conducted by Theresa Donham indicates that the mouth of Maliko Gulch was a precontact canoe landing (personal communication). Other landings along the Hamakua coast were located at Kuiaha, Ho`olawa, Waipio, and Huelo. These landings would have been usable in most circumstances. It is quite likely that other less suited landings were used in times when the ocean was calm. The latter all weather

[1] This was after having ravaged the island of Lana`i, and food to sustain his warriors had run out.

locations probably would have been ones used by the invading forces, and the inhabitants of the areas would have suffered in the ensuing hostilities.

In 1828, missionaries William Richards, Lorrin Andrews and J.S. Green conducted a tour around the island of Maui. In a notation dated August 22, 1828 they relate: "This day we came on to a pavement said to have been built by Kihapilani, a king, contemporary with Umi, and ancient king of Hawaii. He is said to have built it, that his name might not roll out. It extends more than 30 miles, and is a work of considerable magnitude. This pavement afforded us no inconsiderable assistance in traveling as we ascended and descended a great number of steep and difficult paries (palis)." [Sterling, 1998, p. 104]. The remnants of the road could still be seen well into the 19th century, and are referred to as "Kipapa of Kihapi`ilani" (Ibid.).[2]

Mahele Awards

The DWS project area appears to lie in Land Commission Award 3304-C: 1, which was used for pasturage. This 0.708 acre parcel was formerly owned by A&B Properties, Inc, but acquired by the County of Maui for the placement of the existing 200,000 gallon water tank.

There are 30 Land Commission Awards listed in the Indices of Awards for the adjacent Haiku *ahupua`a*. A sampling of Land Commission Awards in the lower Maliko Gulch area to the northwest of the study area include: LCA 3905-C—1.07 acres awarded to Kaili for taro cultivation; LCA 5453—2.04 acres awarded to Paele for pasture land and *kalo* cultivation; LCA 3304-B—0.58 acres awarded to Onaha for taro cultivation; and LCA 6510-L—about 2.5 acres to Ku for taro and pasture lands. Refer to Map 2 for locations of these lots.

All of the awards indicate that gulch areas in the lowlands of this part of windward Maui contained a zone of agricultural usage often with associated habitation. In addition, areas unsuitable for *taro* production were utilized as pasturage.

LCA	Area	Awardee	Land Use	
3304-B: 2	0.58 acres	Onaha	*Taro* cultivation	
3905-C	1.07 acres	Kaili	*Taro* cultivation	*[3]
5453	2.04 acres	Paele	Pasture land and *taro* cultivation	*
6510-L:2 and 3	c. 2.5 acres	Ku	Pasture land and *taro* cultivation	*
6510-O: 2	1.75 acres	Kamakaeu	*Taro* cultivation	

[2] The Belt Road, constructed between Hana and Kahului, was built along this historic trail. Begun at Hana in the late 1800s, it was finally connected to Central Maui in 1926. A section of Old Hana Highway, i.e. Belt Road, runs *makai* of the study parcel (Photos 4 and 5).

[3] Reference (*) Masterson, Chiogioji, and Hammatt, 1995, p. 9. Others—Waihona `Aina.

Post-1850

Bureau of Conveyances records indicate that Richard Armstrong purchased land from M. Kekuana`oa on five occasions between April of 1850 and July of 1855 (Masterson, Chiogioji, Hammatt, 1995, p. 11). One sale included Grant 165. In March 1861, Haiku Sugar Company obtained this land. One of the early successful sugar companies, it ran Hamakuapoko Mill from 1884 to 1905. In 1903 Samuel T. Alexander and Henry P. Baldwin formed the Maui Agricultural Company, when Haiku Sugar Company was merged with their Pa`ia Plantation. The sugar processing operation was then moved to Pa`ia Mill.[4]

Sugar production in this part of Maui depended on a reliable supply of water. In 1876, Alexander and Baldwin realized that more water was needed for their East Maui sugar operation. They formed the Hamakua Ditch Company[5] and began construction of a system of ditches, pipes and tunnels through 17 miles of rainforest on the windward side of Haleakala. Known as the Hamakua Ditch, this was an engineering achievement during its time. The crossing of Maliko Gulch was perhaps the largest obstacle, as the steep sides had to be connected by a bridge, which, when built became the longest and highest in the Hawaiian Kingdom (Figure 4). There is an often told incident about the one-armed Henry Baldwin, who during construction of the bridge, rappelled into the deep ravine to show workers it was not as dangerous as it seemed (Bartholomew and Bailey, 1994, p. 46).

Not to be outdone, Claus Spreckels, owner of Hawaiian Commercial & Sugar Company (HC&S Co) began the construction on the Haiku Ditch, which brought water from the East Maui Mountains to his plantation in Central Maui. Its route was *makai* of the Hamakua Ditch. Control of HC&S Co was wrested from Claus Spreckels in 1898 by Alexander and Baldwin in a stock manipulation.

During the early part of the 20th century, more and more sugar plantations were grafted onto the Maui Agricultural Company, including Kailua, Kula, Makawao, Pulehu, and Kalialinui. The sugar operations of HC&S were based in Pu`unene, while Maui Agricultural Company continued to be based in Pa`ia. In 1948, the two companies merged, consolidating all of A&B's sugar production on Maui under HC&S. In 1962 HC&S Co. merged with and became a division of Alexander and Baldwin, Inc. and East Maui Irrigation Company, Ltd. (EMI) became a subsidiary of A & B, Inc. (Wilcox, 1996, p. 121).

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[4] This mill continued to produce sugar until its closing on September 23, 2000.
[5] This later became East Maui Irrigation Company in 1908, succeeding the 1876 Hamakua Ditch Company (Wilcox, 1996, p. 117).

Kahului Railroad

The railroad system that initially served Hamakuapoko was started by Claus Spreckels' Hawaiian Commercial Company at Spreckelsville Plantation.[6] It was Spreckels intent that sugarcane could be moved most effectively via the railroad.

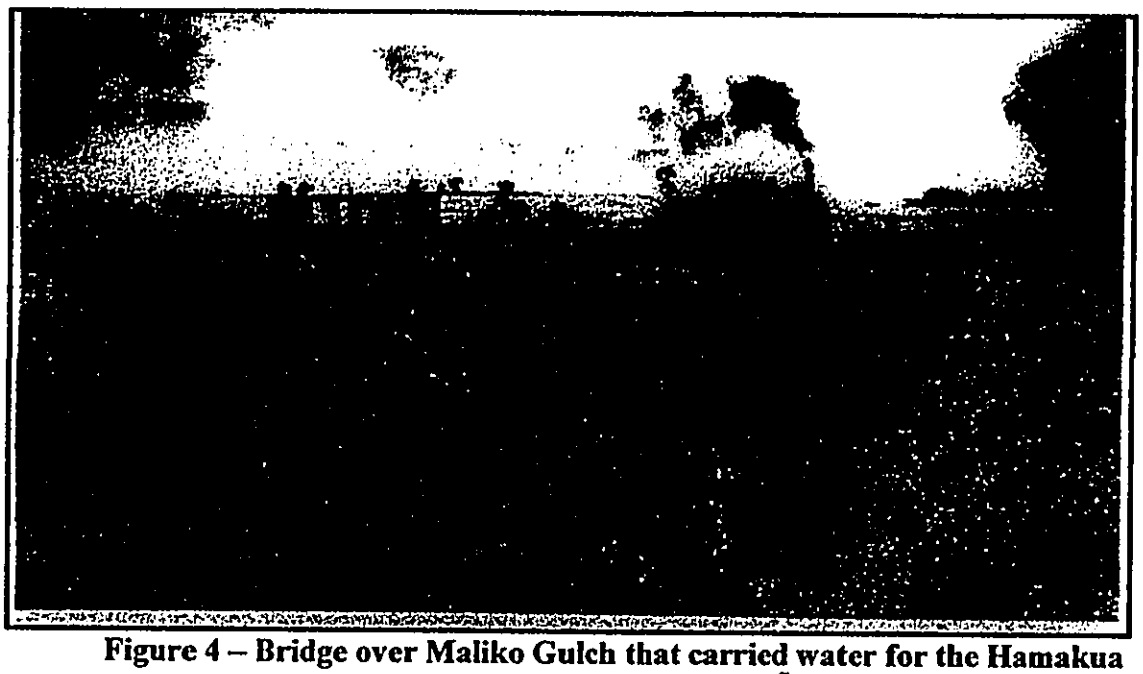

Figure 4 – Bridge over Maliko Gulch that carried water for the Hamakua Ditch and later the Kahului Railroad.[7]

Previous archaeological work

Perusal of documents at the SHPD office in Kahului, Maui, provided information on a number of sites that have been identified on the U.S.G.S. Pa'ia Quadrangle, along the Hamakua coast. As can be seen on the table below, many of the sites are burial sites located along the coastline. Site 1064 is a site from which both precontact burials and historic coffin burials are constantly eroding. The present authors have been called to that area on several occasions over the past 30 years, to retrieve human remains that have washed out of the bank following a storm. The broken long bones, and drilled shark's teeth[8] found, suggest that some of the burials may have been looted in precontact times, in search of material for the manufacture of fishhooks. A list of the sites is presented on Table 1 and locations indicated on Figure 3.

In 1995, Cultural Surveys Hawaii conducted an archaeological inventory survey of Lot 2 of the Haiku Agricultural Subdivision of A & B Properties. This c. 64-acre parcel lies south of the study area, and had been in pineapple cultivation for many years.

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[6] Hawaiian Commercial Company was established in 1878.
[7] From Bartholomew and Bailey, 1994, p. 48.
[8] Similar shark's teeth, attached to wooden handles, and used as knives, can be seen in Buck, 1964, Vol. X, p. 447.

Nothing was found during the pedestrian survey, and further work was not recommended (Masterson, Chiogioji and Hammatt, 1995, p. i). However, the authors did note that during a site inspection in June 1994, conducted by then Maui SHPD staff archaeologist, Theresa Donham on Lot 1 (the neighboring lot *makai* [north] of Lot 2), traditional Hawaiian artifacts were found. These included an *`ulu maika* stone, an adze fragment, a ground pebble tool, and a polished basalt flake. They conclude: "These artifacts could indicate the presence of a formerly intact archaeological deposit in the neighboring Lot 1 parcel." (Ibid. p. 7).

Xamanek Researches carried out an inventory survey during 1999 on Maliko Point, which lies on the *makai* (north) side of Hana Highway across from Lot 1. During the course of this fieldwork, we documented an extensive subsurface waterworn pavement, a habitation deposit, and precontact and post-contact burials. The pavement and habitation deposit were designated Site 50-50-05-4969, while the burials were designated Site 4833. Submitted charcoal samples returned radiocarbon date ranges in the late precontact to early post-contact period. A large portion of the Site 4969 was placed in passive preservation along with the Kalawaia *ohana* cemetery and Site 4833.

We also carried out an inventory survey of a parcel that contained a portion of the old Kahului Railroad Bed (Site 50-50-05-3112) in the summer of 2004. This project was located in Ha`iku *ahupua`a*—to the northwest of the study area, and no additional sites were found during the survey. Based on the level of previous disturbance associated with the construction of the railroad, it is not surprising that there were no undocumented sites in the survey corridor.

Xamanek Researches, LLC[9] conducted a field inspection of a parcel of land near Maliko Point in early summer of 2005. This property had been under pineapple cultivation for decades. This study utilized (voluntary) subsurface backhoe testing on the property. There were no significant material culture remains encountered during testing on the project area.

TABLE 1
Coastal sites in the general vicinity of project area

Site #	Site Type	Remarks
1063	Petroglyphs	Hamakuapoko petroglyphs
1064	Burials	Kalahau Burial Complex
1221	Agricultural complex	Kaupakalua Complex. Rectangular terraces (15), irrigation canal, and retaining wall.
1253	Habitation and burial	Pa`ia House and Grave complex. Well-preserved house outline, with rectangular pit. Surface artifacts include grindstone, basalt flakes. Food midden is also present around periphery.
1255	Platform	Ho`okipa platform. Badly eroded terraces (2) without surface artifacts or midden evident.
1271	Burial	Ho`okipa burial. Outline of burial pit in parking area.

[9] Xamanek Researches was converted to Xamanek Researches, LLC—a Hawaii-based Limited Liability Company—in February 2005.

Table 1 cont.

1265	Burials	Hamakuapoko Burial Complex
1700	Burials	Pauela Light House Burials
1779-1782	Burials and habitation	Located during monitoring of the Spreckelsville Sewer line project
4482	Historic	World War II Pill Box in Pa`ia
4833	Cemetery	Maliko—Kalawaia Cemetery with some additional unmarked burials
4969	Habitation/ ceremonial	Maliko Point habitation and ceremonial site with some possible precontact graves

Settlement Patterns and Expectations of findings

Flat plains intersected by deep gullies characterize this area of Maui. Maliko Gulch, although not as wet as valleys to the east, provided sufficient water for some *taro* production, as the LCA information notes. Sweet potatoes were thought to have been cultivated in the *kula* areas between drainage gulches according to Handy and Handy (1972). The relatively large bay at the mouth of Maliko Stream provided access to the abundant shore and deep-ocean resources. The vantage point provided by Maliko Point aided in the securing of these resources. A traditional canoe-landing site at Maliko is further evidence of the importance of marine resources to area inhabitants (Theresa Donham, personal communication). All in all, people living in this part of Haiku *ahupua`a* in late precontact times were probably fairly numerous. While human graves have been noted all along the coast, both to the west and to the east, there have not been any documented further inland. However, it is important to note that this lack likely is due to the general paucity of inland studies in this portion of Maui.

Expected Findings

Commercial pineapple and sugarcane cultivation began in the mid to late 1800s, and the subsequent importation of foreign labor for the plantation system changed the character of upcountry Maui. The plantations acquired large amounts of land, which displaced many native Hawaiians. The acquisition of stream water for pineapple and sugarcane cultivation essentially dried up many of the remaining *kalo* fields by the end of the 19th century. Subsequently, a pattern of dispersed villages and camps for plantation workers emerged. *Kuleana* land grants often changed ownership, as plantation workers became affluent enough to purchase land from Hawaiians who were willing to sell. Commercial development thus became a driving force that would continue and intensify through the 20th century.

Based on our background research and the lack of Land Commission Awards in the general project area, the expected findings could include possible precontact habitation and/or agricultural site remnants, possibly containing associated human burials, as well as ranching-related post-contact features. However, given that the present study area had been previously disturbed by the construction of the existing DWS tank facility, and had been actively used for pasturage for decades, we did not expect that any precontact/post-contact sites would remain within the survey area.

ARCHAEOLOGICAL METHODS

Fieldwork for this archaeological assessment survey was carried out during September 2005. Daniel Vicars and Erik Fredericksen conducted the surface walkover. Given that the area had been extensively modified by the construction of the existing DWS facility, and an access road cut was present for inspection, there was no manual testing carried out.[10] Erik Fredericksen was the project director for this assessment level study.

As noted above, the survey of the study area consisted of a surface walkover. Written notes were kept in the field, and photographs were taken in a digital format.

ARCHAEOLOGICAL RESULTS

As previously noted in this report, the project area is located in an area that is presently pasturage. There was no subsurface testing carried out per discussions with Dr. Melissa Kirkendall, SHPD staff archaeologist for Maui. There was no evidence no significant material remains noted during the surface walk-over or the inspection of the access road cut.

Access Road Cut

During the course of the surface walk-over, it was possible to inspect a c. 8 meter long cut bank that is associated with a pasture access road to the southeast of the proposed water tank location. This c. 20 to 70 cm cut face revealed two strata (refer to Photograph 4 in Appendix A).

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[10] As previously noted, consultation with Dr. Melissa Kirkendall, SHPD Maui staff archaeologist, indicated that it was not necessary to conduct any subsurface testing, due to the level of prior disturbance in the project area. We did, however, spot check this cut face area with 1/8th screen.

Layer I (0-15 cmbs) consisted of brown (7.5 YR 4/4) clay loam. This slightly friable stratum contained a few pieces of weathered rock, as well as grass rootlets. There were no cultural materials noted during spot screening with 1/8th inch hardware mesh. Layer II (15-70+cmbs) was composed of brown (7.5 YR 5/4) silty clay. This sterile layer contained weathered parent material and rocks.

SUMMARY AND CONCLUSIONS

There were no significant cultural materials encountered during our inspection of the project area. Based on the results of our walk-over, it appears that all of the study area has been impacted by previous earthmoving activities associated with the construction of the existing DWS water tank facility and the development/maintenance of the surrounding pasture. In addition, inspection of an existing pasture access road cut bank and follow up spot screening did not reveal any evidence of precontact activity.

Site Significance Evaluations

The following significance evaluations are based on the Rules Governing Procedures for Historic Preservation Review (DLNR 1996; Chapter 275). According to these rules, a site must possess integrity of location, design, setting, materials, workmanship, feeling and association and shall meet one or more of the criteria below:

Criterion "a"—Be associated with events that have made an important contribution to the broad patterns of our history;

Criterion "b"—Be associated with the lives of persons important in our past;

Criterion "c"—Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; or possess high artistic value;

Criterion "d"—Have yielded, or is likely to yield, important information for research on prehistory or history;

Criterion "e"—Have an important traditional cultural value to the native Hawaiian people or to another ethnic group of the state due to associations with traditional cultural practices once

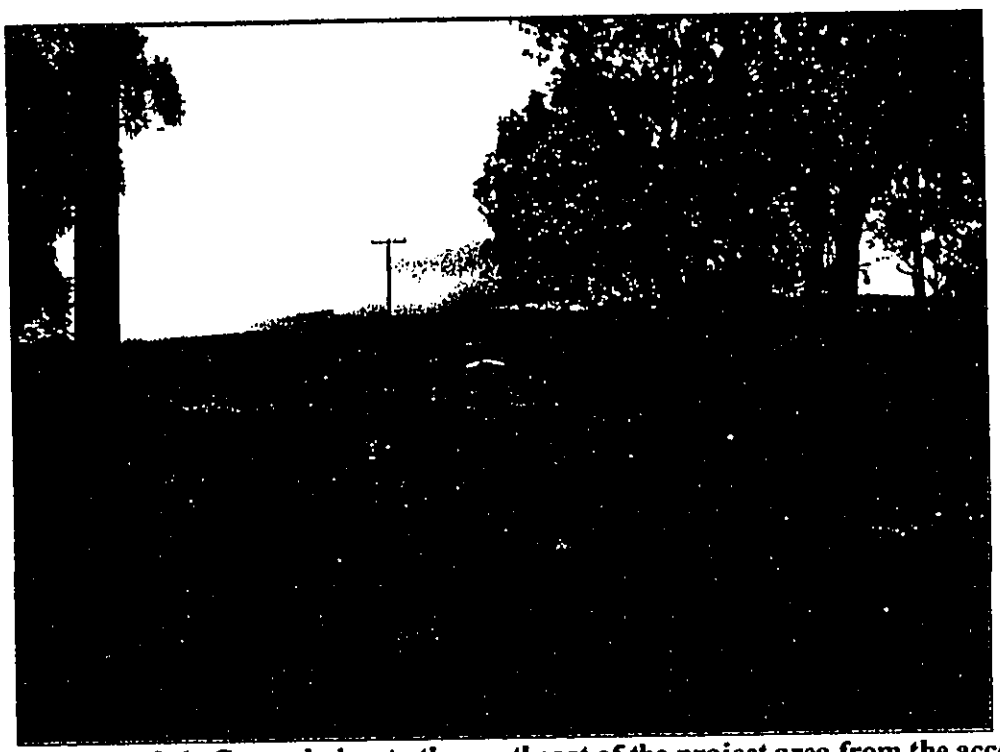
carried out, or still carried out, at the property or due to associations with traditional beliefs, events or oral accounts.

As noted earlier in this report, we did not locate any significant material culture remains on the project area during this assessment study. Consequently, there can be no site significance assessments made at this point in time.

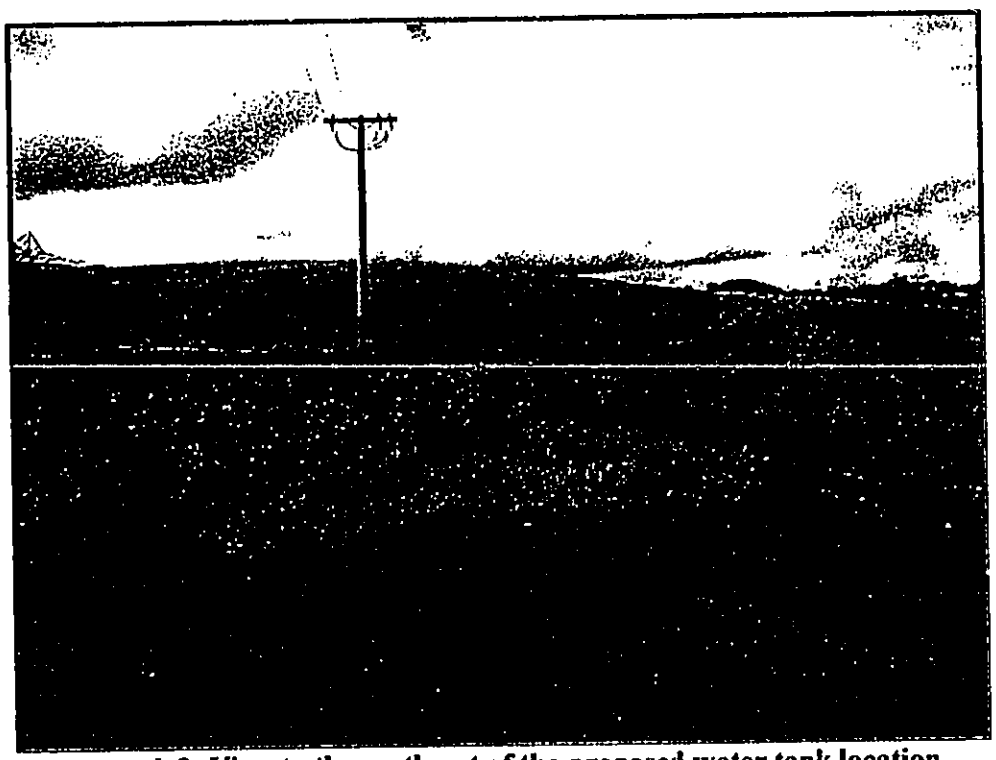
Mitigation Recommendations

Based on the results of this archaeological assessment survey, no further work is recommended at this point in time. However, if significant historic sites or human burials are encountered during construction activities, work must cease in the immediate area until appropriate mitigation measures can be determined by the SHPD Maui office and in the event that human remains are encountered the Maui/Lana`i Islands Burial Council.

APPENDIX A
Project area photographs

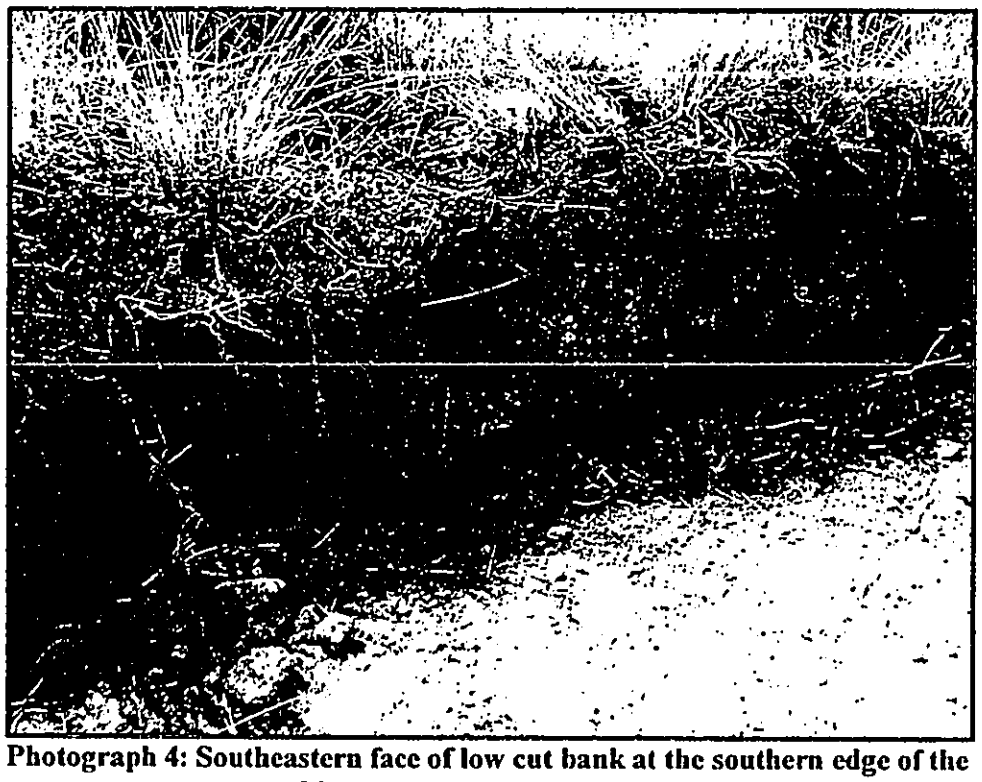


Photograph 1: General view to the northeast of the project area from the access road off of Kaupakalua Road.

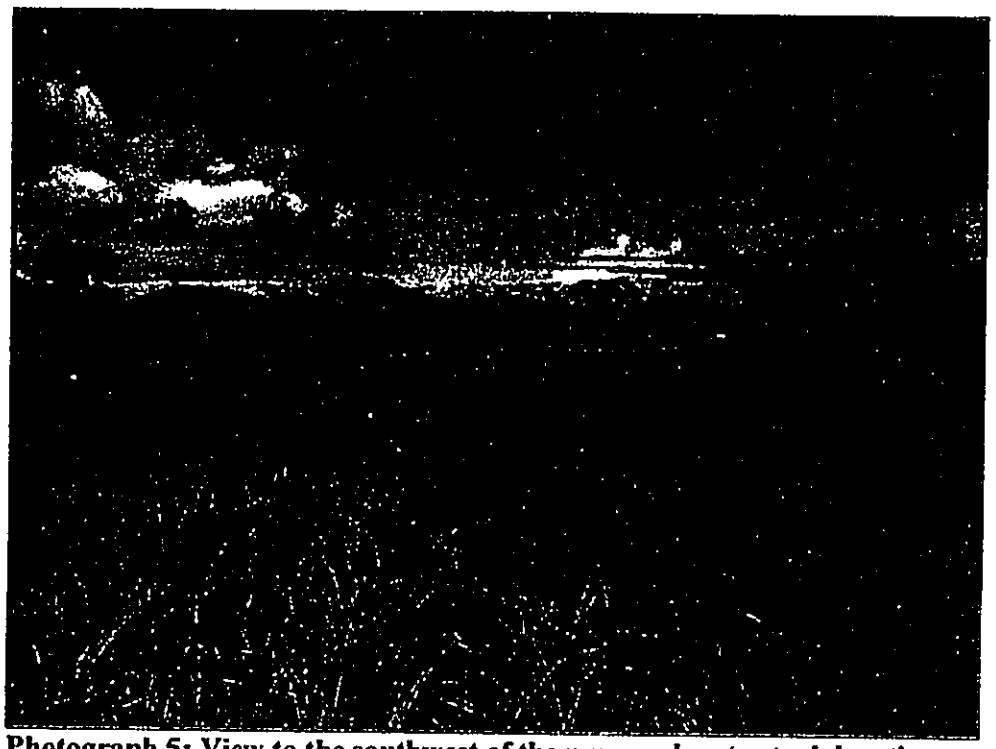


Photograph 2: View to the southeast of the proposed water tank location. Portion of existing paved access road is visible in foreground.

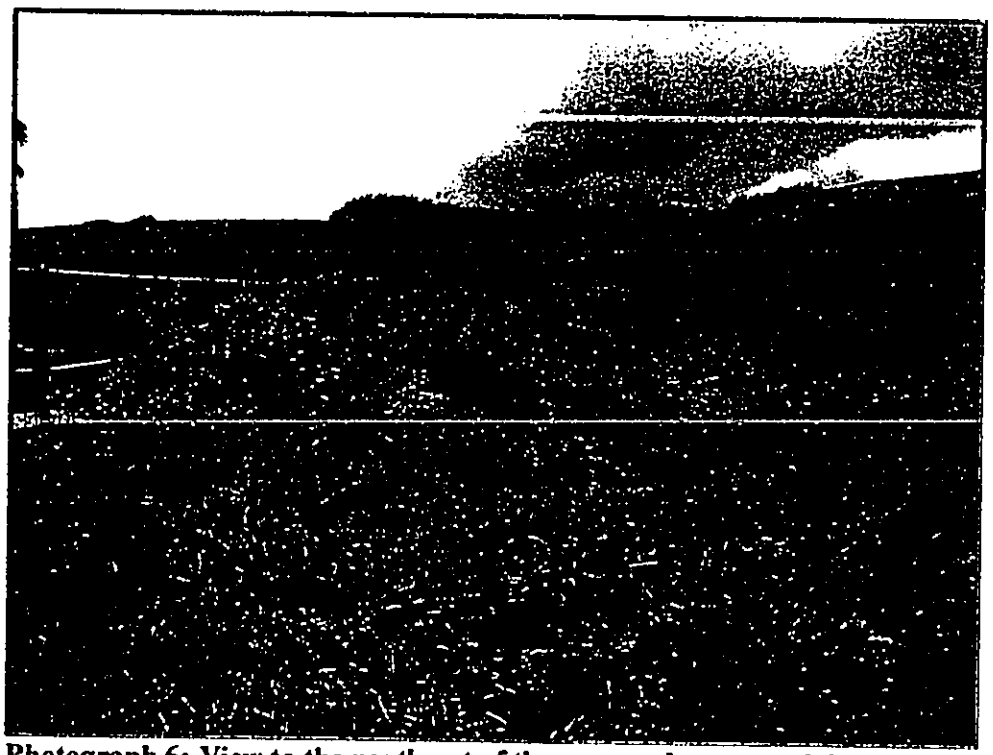
Photograph 3: View to the southeast of proposed water tank location. Cut bank visible at right center of photograph.



Photograph 4: Southeastern face of low cut bank at the southern edge of the proposed impact area.



Photograph 5: View to the southwest of the proposed water tank location; existing COM water tank visible at right.



Photograph 6: View to the northeast of the proposed water tank location; existing COM water tank facility fence at left.

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Appendix B-2

Letter Dated January 26, 2006 from State Historic Preservation Division

JAN 26 2006

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR - LAND

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ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
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HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

January 23, 2006

Mr. Erik Fredericksen
Xamanek Researches
P.O. Box 880131
Pukalani, Hawai'i 96788

LOG NO: 2005.2769
DOC NO: 0512MK61
Archaeology

Dear Mr. Fredericksen:

SUBJECT: **Chapter 6E-42 Historic Preservation Review - Archaeological Assessment Survey**
A Portion of Land in West Kaupakalua, for the Proposed Kaupakalua Well Storage Tank Site (Concurrent with the Draft Environmental Assessment Review)
Kaupakalua Ahupua'a, Makawao District, Maui
TMK (2) 2-7-015:038

Thank you for the opportunity to review this report which our staff received on October 25, 2005 (Fredericksen 2005, *An Archaeological Assessment Survey Report for a Portion of Land in West Kaupakalua Ahupua'a, Makawao District, Island of Maui, [TMK (2) 2-7-15:38]*...Xamanek Researches, LLC, ms). We are concurrently completing our review of the draft Environmental Assessment for the subject property/project (Log 2005.2770/Doc 0512MK62).

The assessment meets our minimum requirements, as set forth in HAR 276-5 (a) and (c). The background section acceptably establishes the ahupua'a settlement pattern and predicts the likely site pattern in the project area. The historical information provided summarizes the history of the post-contact period land uses. The summary of previous archaeological work in the area provides a baseline for the current work. The subject parcel has previously been utilized for commercial cultivation and ranching activities. The parcel is owned by the County of Maui, and currently has an existing 200,000 Gallon Pump control tank situated on it. An additional tank is proposed for the subject parcel.

The survey has adequately covered the project area documenting no historic properties. The area has been grubbed and graded previously, in association with the installation of the existing DWS water tank facility.

We concur that no further archaeological work is warranted on the subject parcel. As a contingency, in the event that historic sites (human skeletal remains, etc.) are identified during the construction activities, all work needs to cease in the immediate vicinity of the find, the find needs to be protected from additional disturbance, and the State Historic Preservation Office needs to be contacted immediately at 243-5169, on Maui.

We find this report to be acceptable. The historic preservation review process is concluded. Development of the project areas will have "no effect" on significant historic sites. As always, if you disagree with our comments or have questions, please contact Dr. Melissa Kirkendall (Maui/Lana'i SHPD 243-5169) as soon as possible to resolve these concerns.

Aloha,

MELANIE A. CHINEN, Administrator
State Historic Preservation Division

MK: kf

c: Bert Ratte, DPWEM, County of Maui
Michael Foley, Director, Dept of Planning, 250 S. High Street, Wailuku, HI 96793
Maui Cultural Resources Commission, Dept. of Plng, 250 S. High Street, Wailuku, HI 96793
Tara Nakashima, Munekiyo & Hiraga, Inc, 305 High Street, Suit 104, Wailuku, HI 96793
Department of Water Supply, County of Maui, 200 South High Street, Wailuku, HI 96793

Appendix C

Preliminary Drainage Report

DRAINAGE REPORT

FOR

KAUPAKALUA WELL STORAGE

MAKAWAO, MAUI

TMK: (2) 2-7-15:34

Prepared by: Okahara and Associates, Inc.

November 2005

PRELIMINARY DRAINAGE REPORT
FOR
KAUPAKALUA WELL STORAGE
Makawao, Maui, Hawaii

INTRODUCTION

The purpose of this report is to examine the existing drainage conditions and proposed drainage improvements related to the proposed project site.

SITE LOCATION AND PROJECT DESCRIPTION

Kaupakalua Wells is located in Makawao, Maui (TMK: (2) 2-7-15:34).

The current site has an existing well and 200,000 gallon reservoir enclosed within a secured chain-link fence. The proposed project will expand the existing site to add another reservoir to the existing site. The proposed improvements include some grading, paving, utility improvements, constructing a 300,000-gallon reservoir and all required appurtenances. The total site area after the proposed improvements is approximately 0.97 acres.

EXISTING TOPOGRAPHY AND SOIL CONDITIONS

The proposed site for the new improvements is currently undeveloped. The improvements will partially be within the existing fenced and graveled area, and partially within the existing grassed area outside of the existing fence line. The area contained within the secured fence is graveled and level. The area that lies outside of the fence is grassed and slopes up to the east significantly at a slope of 23%. The slope elevation ranges between 1236 feet and 1280 feet.

The site consists primarily of Pauwela soil (PfB) according to the "Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii (August 1972)," prepared by the United States Department of Agriculture Soil Conservation Service. The Pauwela soil is considered a clay or silty clay type of soil. The soil has a moderately rapid permeability with a slow runoff. The erosion hazard is slight.

EXISTING DRAINAGE CONDITIONS

The current storm drainage appears to runoff the grass sloped hill toward the reservoir site. The existing well and reservoir site is comprised mostly of gravel surface. The site also contains an existing drain inlet that conveys the water off of the property to the west. The stormwater is then piped and released through a drainage easement to a drainage ditch.

PROPOSED DRAINAGE SYSTEM

The proposed drainage system will utilize a similar design to the existing facility. The improved area will mainly be covered with a gravel surface. The gravel surface is still considered to be a pervious surface. The stormwater will sheet flow off of any impervious surface into this gravel area. The proposed development will not increase the runoff from the project site.

METHODOLOGY

The runoff calculations were computed utilizing the Rational Method, using Title MC-15, Department of Public Works and Waste Management, County of Maui, Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui. The drainage area is less than 100 acres; therefore a 10-year, 1-hour storm event was used in the calculations.

Rational Formula: $Q = CIA$

Where Q = rate of flow (cubic feet per second)

C = runoff coefficient

I = rainfall intensity for a duration of time (in/hr)

A = drainage area (acres)

SUMMARY

The existing drainage flow based on a 10-year, 1-hour rainfall event is 2.21 cfs. The proposed drainage system based on a 10-year, 1-hour rainfall event is 2.42 cfs. The majority of the new storm drainage will not reach the existing outlet because of the amount of pervious area available prior to reaching the inlet. The storm water should infiltrate into the ground surface prior to reaching the storm inlet.

The proposed site drainage system has been designed to control a 10-year design storm event and maintain the existing drainage patterns.