

# **Environmental Impact Statement Preparation Notice**

## **PROPOSED WAI'ALE WATER TREATMENT FACILITY (TMK Nos. (2)3-8-046:020 (por.))**

**Prepared for:**

**A&B Properties, Inc.**

**Accepting Authority:**

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

**June 2008**



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## Executive Summary

**Project Name:** Proposed Wai`ale Water Treatment Facility

**Type of Document:** Environmental Impact Statement Preparation Notice

**Legal Authority:** Chapter 343, Hawai`i Revised Statutes

**Agency Determination:** Environmental Impact Statement to be prepared

**Applicable Environmental Assessment review “Trigger”:** Use of County Lands

**Location:** Island of Maui  
Wailuku  
TMK 3-8-046:020 (por.)

**Landowner:** A&B Properties, Inc.  
P. O. Box 156  
Kahului, Hawai`i 96732  
Contact: Diane Bevilacqua  
Phone: (808) 872-4302

**Applicant:** A&B Properties, Inc.  
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Contact: Diane Bevilacqua  
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**Accepting Authority:** Department of Water Supply  
County of Maui  
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Contact: Jeffrey Eng  
Phone: (808) 270-7876

**Consultant:** Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawai`i 96793  
Contact: Karlynn Fukuda  
Phone: (808) 244-2015

**Project Summary:** The applicant proposes the development of a water treatment facility (WTF) adjacent to the Wai`ale Reservoir in Wailuku,

Maui. The facility will treat surface water to supply potable water. A total of three (3) filter units are proposed to yield a sustained average production capacity of approximately nine (9) million gallons per day (mgd). The plant's design and layout will provide space for capacity expansion if needed in the future. However, the scope of the proposed action is limited to the use of three (3) filter units only. Treated water will be conveyed to the nearby, existing 3.0 million gallon Wai'ale storage tank owned by the County of Maui. Access to the WTF will be via a new driveway from the Kuikahi Drive Extension. The water treatment facility and access driveway will be dedicated to the County of Maui upon completion.

# **I. PROJECT OVERVIEW**

# I. PROJECT OVERVIEW

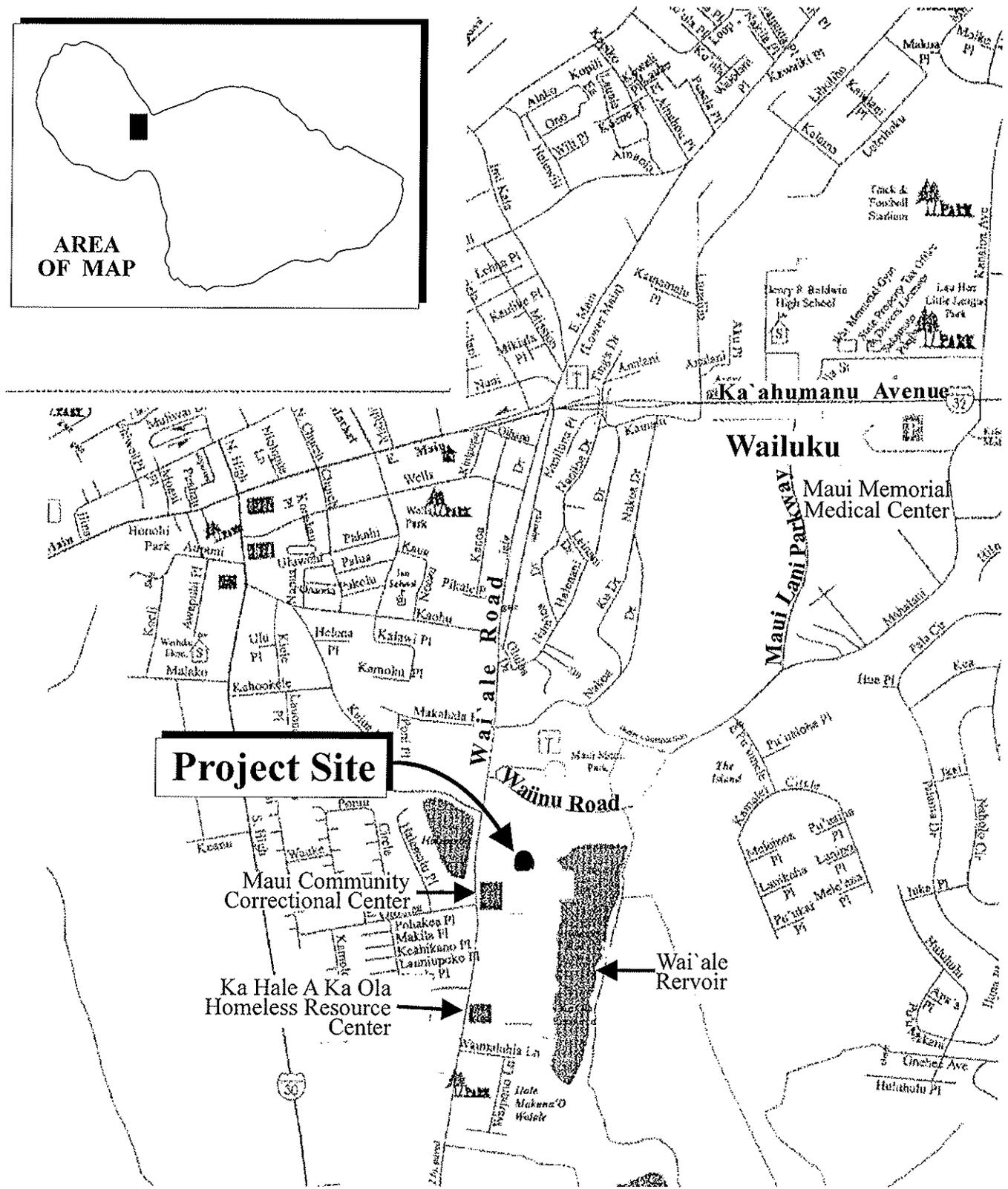
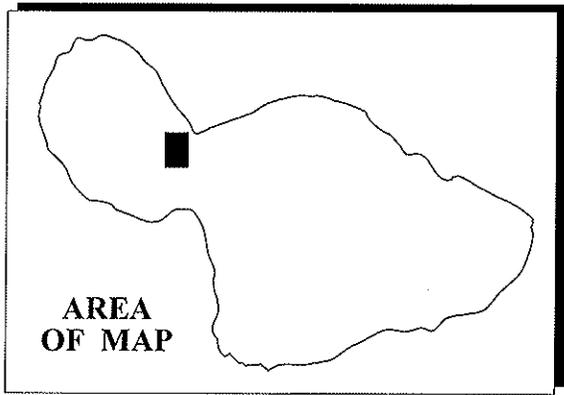
## A. PROJECT LOCATION, EXISTING USE, AND LAND OWNERSHIP

A&B Properties, Inc. (applicant), in collaboration with the County Department of Water Supply (DWS), proposes the development of a new water treatment facility (WTF) on lands adjacent to the Wai`ale Reservoir, in Wailuku, Maui. See **Figure 1**, and **Figure 2**, and **Figure 3**. These lands are identified by Tax Map Key (2)3-8-046:020. The Reservoir occupies approximately 79.93 acres of land, divided into the Upper and Lower Wai`ale Reservoirs. The WTF is proposed to be located near the northern property boundary of the Reservoir site, in the vicinity of the Maui Community Correctional Center. The subject property is owned by the applicant. These lands are undeveloped and currently contain flora common to the area such as kiawe trees and scrub brush.

## B. CHAPTER 343, HAWAII REVISED STATUTES APPLICABILITY

Detailed engineering designs are being undertaken for the proposed action, including designs for piping connections to the County of Maui's Wai`ale Water Tank, and utility connections to County infrastructure systems. Although the extent and scope of these interface components have not been defined, it is assumed that work affecting either the water tank site or the County rights-of-way will require environmental disclosure pursuant to Chapter 343, Hawaii`i Revised Statutes (HRS).

The County of Maui, as the Chapter 343, HRS accepting entity, has determined that the preparation of an Environmental Impact Statement (EIS) is warranted. This Environmental Impact Statement Preparation Notice (EISPN) serves as the initial document to facilitate scoping and preparation of the EIS.



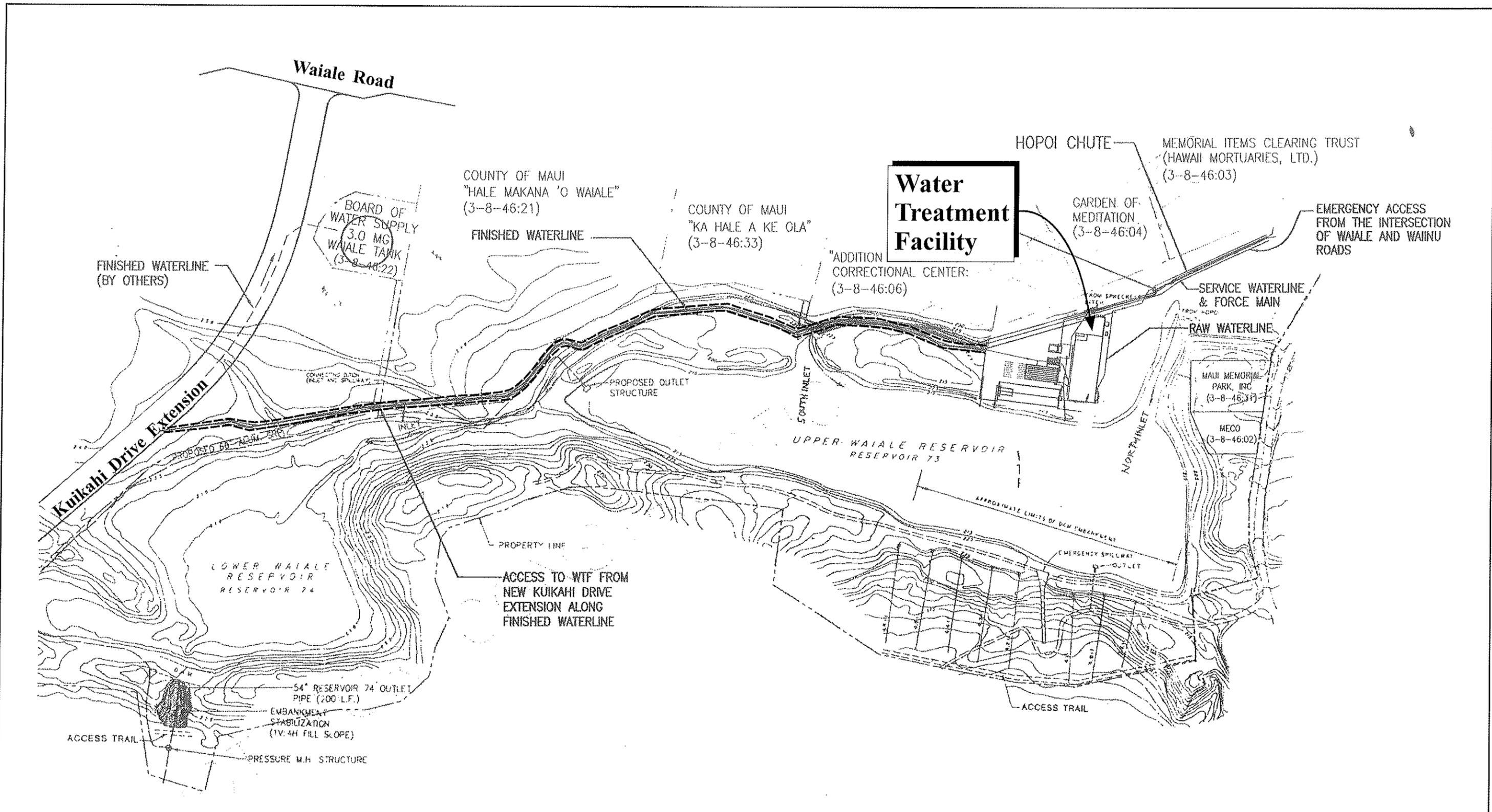
Source: Austin, Tsutsumi & Associates, Inc.

Figure 1

# Proposed Wai'ale Water Treatment Facility Regional Location Map

NOT TO SCALE





Source: Austin, Tsutsumi & Associates, Inc.

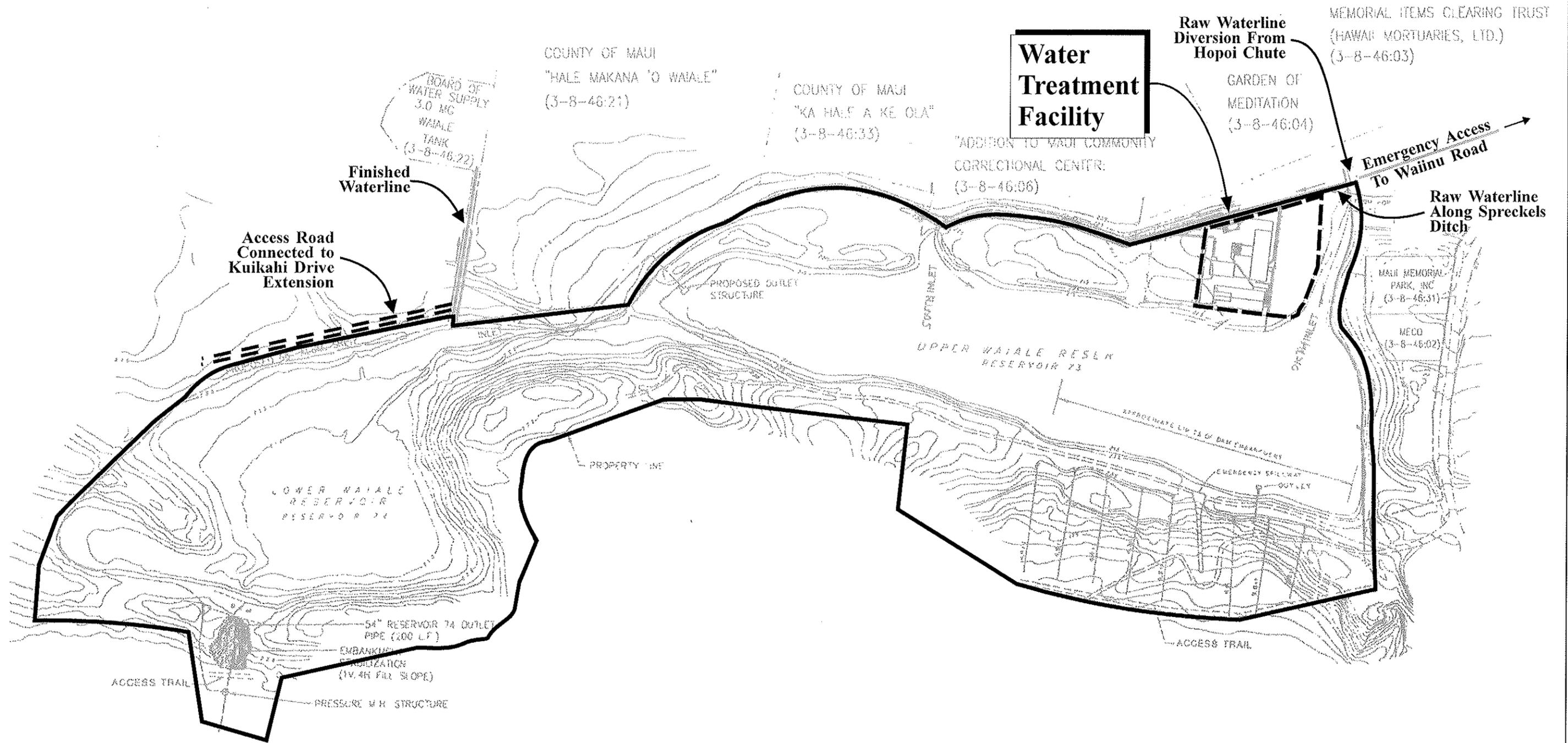
Figure 2

Proposed Wai'ale Water Treatment Facility  
Area Location Plan

NOT TO SCALE



Prepared for: A&B Properties, Inc.



Source: Austin, Tsutsumi & Associates, Inc.

Figure 3

### Proposed Wai'ale Water Treatment Facility Site Location Map



Prepared for: A&B Properties, Inc.

MUNEKIYO & HIRAGA, INC.

## **C. WATER USE AND DEVELOPMENT CONTEXT FOR CENTRAL MAUI**

The DWS is the principal purveyor of domestic water to Central Maui residents. The DWS's Central Maui system, serving the Kihei-Makena and Wailuku-Kahului Community Plan regions, consists primarily of groundwater sources, storage tanks, transmission lines and a network of distribution lines. The DWS is in the midst of updating its Water Use and Development Plan (WUDP) which addresses the Central Maui system. The updated WUDP will serve as the long-range planning blueprint for all uses of water for the County of Maui.

The County's strategic objective in meeting water needs for its residents is reflected in its WUDP update process. Specifically, the WUDP will identify resource strategies or options for meeting water source needs. Such options will include short-term resource options that could mitigate immediate capacity reserve shortfalls.

Planning for water use is critical for the Island's short-term and long-term social well being and economic viability, as water demands have taxed the current availability of source and attendant delivery infrastructure. The significance of water use and development is reflected in public policy which includes the County's recently adopted Ordinance No. 3502 relating to water availability. This ordinance specifically requires verification of a long-term, reliable supply of water before subdivisions can be approved.

The proposed WTF is viewed as a viable component of an integrated approach to the provision of new source both for the short term and long term.

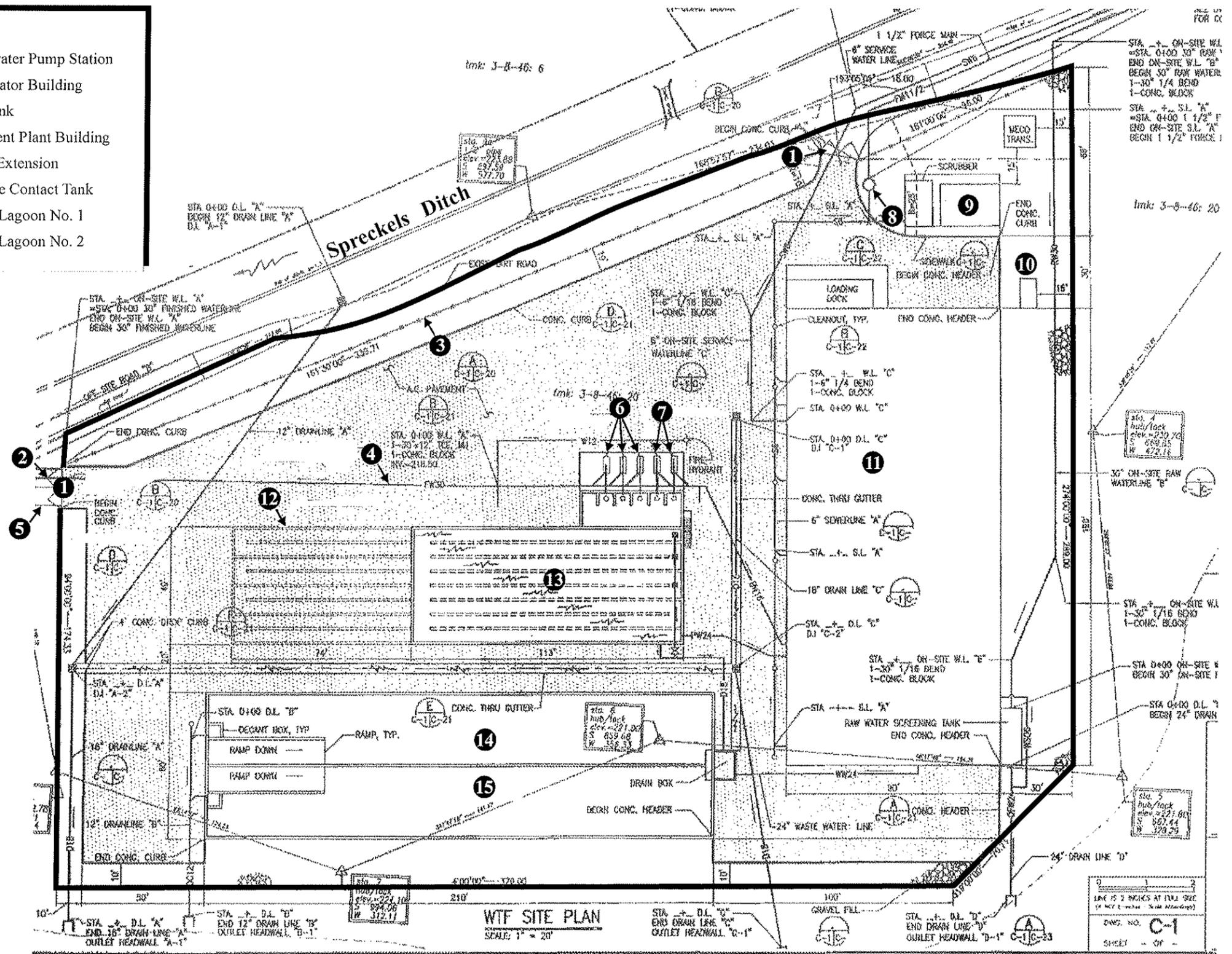
The Draft EIS will elaborate on the water use and development context for Central Maui in order to provide insight on the relationship of the proposed WTF to the County's overall water use and development strategy.

## **D. PROPOSED ACTION**

### **1. Treatment Plant and Source Overview**

The proposed project is the development of a new WTF that will process surface water into potable water. See **Figure 4**. A total of three (3) filter units are proposed for the WTF. Implementation of the three (3) filter units is anticipated to occur in a single phase, yielding a sustained average production capacity of approximately nine (9) million gallons per day (mgd). The plant's design and layout will provide space

- KEY**
- 1 18' Wide x 6' High Double Swing C.L. Gate
  - 2 30" Finished Waterline to Waiale Tank
  - 3 6' High C.L. Fence
  - 4 30" Finished Waterline
  - 5 15' Wide A.C. Road
  - 6 Finished Water Pumps
  - 7 Backwash Pumps
  - 8 Wastewater Pump Station
  - 9 Chlorinator Building
  - 10 Fuel Tank
  - 11 Treatment Plant Building
  - 12 Future Extension
  - 13 Chlorine Contact Tank
  - 14 Sludge Lagoon No. 1
  - 15 Sludge Lagoon No. 2



Source: Austin, Tsutsumi & Associates, Inc.

Figure 4

## Proposed Wai'ale Water Treatment Facility Site Plan

NOT TO SCALE



Prepared for: A&B Properties, Inc.

for capacity expansion if needed in the future. However, the scope of the proposed action is limited to the use of the three (3) filters only.

Currently, the Wai`ale Reservoir receives water from two (2) sources, the Hopoi Chute and Spreckels Ditch. The Hopoi Chute is a 36-inch diameter, corrugated metal pipe which conveys water from the Waihee Ditch into the Upper Wai`ale Reservoir. In the vicinity of the project site, the Hopoi Chute is mounted above Spreckels Ditch. Spreckels Ditch conveys waters to a diversion structure that allows for discharge into either the Upper or Lower Reservoirs. All flow from Spreckels Ditch currently discharges into the Upper Reservoir and the Lower Reservoir is generally dry.

All water to be treated at the WTF will be received from the Hopoi Chute (Waihee Ditch Source). The proposed project will not treat any water from the Wai`ale Reservoir or the Spreckels Ditch. Average daily flow through the Hopoi Chute between January 1994 and December 2003 was 22.02 mgd. The amount of water flowing through the Hopoi Chute is controlled by the operation of the Waihee Ditch system. Any WTF overflow from the Hopoi Chute will be discharged into the reservoir as it is at present. There are emergency overflows from the Wai`ale Reservoirs that lead to the Maui Lani golf course. The Draft EIS will describe the source and infrastructural components comprising the Hopoi Chute delivery system to the WTF.

Treated water will be conveyed to the nearby Wai`ale Storage Tank, owned by the County of Maui. A new access driveway to the WTF will be developed to connect to the Kuikahi Drive extension. Additionally, an emergency access will be provided to connect to Waiinu Road, near its intersection with Wai`ale Road. Refer to **Figure 2** and **Figure 3**.

## **2. Treatment Process Description**

A new diversion structure will divert a majority of the water from the Hopoi Chute to the WTF. The surface water will flow by gravity through a screening unit and into an adjacent raw water well. From the wet well, the water will be pumped through a strainer and chemicals added prior to entering flocculation tanks, which are essentially holding tanks with a slow mixer. The water will then gravity flow into the adjacent tanks containing submerged membranes to filter out contaminants. The pumps, strainers, flocculation tanks and membrane tanks will all be within the control building. Upon passing through the membrane, the water will be conveyed

to an enclosed concrete chlorine contact tank outside of the building, after injection of chlorine into the conveyance pipe. This tank essentially is a storage tank to ensure that there is sufficient chlorine contact time with the filtered water to provide proper disinfection. The water will then be pumped to the County's Wai'ale Tank for subsequent distribution in the County system.

A metal control building will house all treatment components, prior to disinfection within the chlorine contact tank. This building will have interior rooms constructed of concrete masonry units (CMU) for sound attenuation related to equipment operations, as well as for chemical storage and office/laboratory facilities.

A CMU building separate from the control building will house the gas chlorination equipment. A vapor scrubber will be installed next to the chlorinator building to treat chlorine gas, in the remote possibility of a chlorine leak.

Another major structure on the site will be dual sludge lagoons, which will receive the backwash water from the filter treatment process. These lagoons will be concrete structures without a cover, as the process is dependent on sunlight to dry the settled silt after the water has been decanted. These lagoons are analogous to storm water desilting basins. Sludge from the facility would be processed by shutting down one (1) of the sludge lagoon cells to allow for gravity settlement of the solids. The cell would be allowed to dry out via percolation through the dirt bottom and evaporation. When the solids content of the sludge dries to approximately 35 percent solids, it will be removed via machinery from the lagoon, transported and disposed of in the County of Maui landfill. The expected quantity of dried solids is estimated at approximately 15,000 gallons or 2,000 cubic feet, per cell, per cleaning. The frequency of cleaning will vary, based on the production rate of the WTF and the raw water quality.

The technical elements of the proposed action will be described in the Draft EIS.

## **E. PROJECT PURPOSE AND NEED**

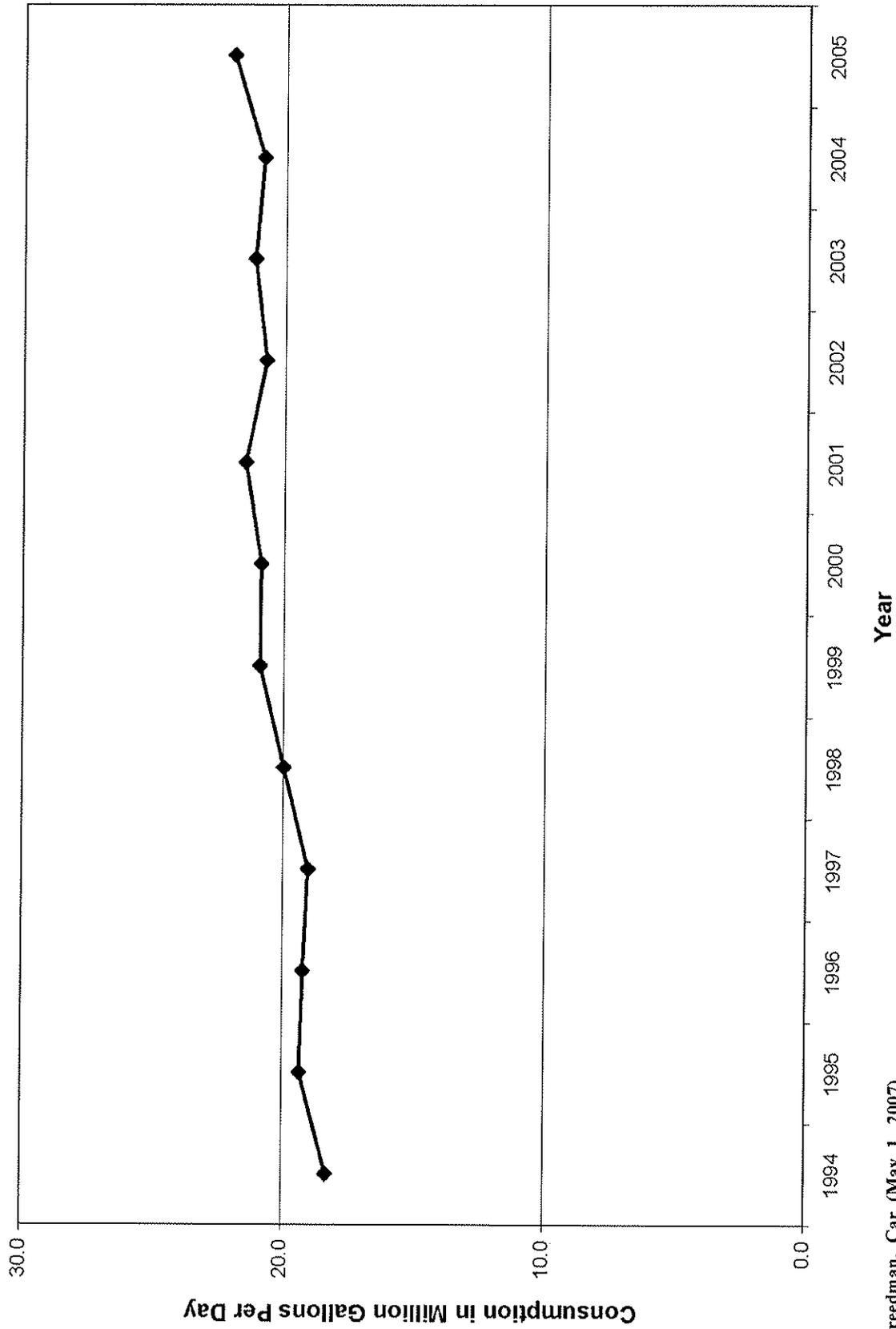
Water source development is a key element in sustaining the economic and social well-being of the Island of Maui. Availability of production capacity in Central Maui is particularly significant in the context of historical potable water consumption data which shows a steady pattern of increasing demand for water (Freedman 2007). See **Figure 5**. Between 1994 and 2005, Central Maui's potable water demand increased by approximately 20 percent, from 18.3 mgd to 22.0 mgd.

According to water demand projection analyses prepared for the DWS, water consumption over the next several years will continue to hold the pattern of increasing use (Freedman, 2007). The DWS projections covered a range of possible demand outcomes over time, including three (3) projection scenarios utilizing the County of Maui's socio-economic forecast prepared for the General Plan Update process. According to the DWS projections for Central Maui, water demand in the year 2030 under the three (3) scenarios would range between 29.5 mgd and 46.5 mgd. The projected demand for the base case or mid-projection estimate in the year 2030 is 34.1 mgd. See **Figure 6**. In the near-term projection year of 2015, the estimated water consumption demand would range between 23.8 mgd and 29.2 mgd. The projected demand for the base case or mid-projection estimate for the year 2015 is 25.5 mgd.

When comparing the 2005 historical Central Maui demand of 22.0 mgd against the base case or mid-projection demand for 2015 of 25.5 mgd, the additional water requirement is approximately 3.5 mgd, or a 16 percent increase. Similarly, the additional water requirement using the base case projection for the year 2020 is 28.2 mgd, or a 28 percent increase over the 2005 historical demand figure.

There is a current need for new sources of water. Current source availability is limited, as evidenced by the recent adoption of Ordinance 3502 relating to Water Availability which requires verification of a long-term reliable supply of water before subdivision approval can be granted.

In the context of existing supply and public policy considerations, and future water demand requirements, the development of new sources is deemed necessary for the continued economic and social well-being of the County. With this background, the applicant has

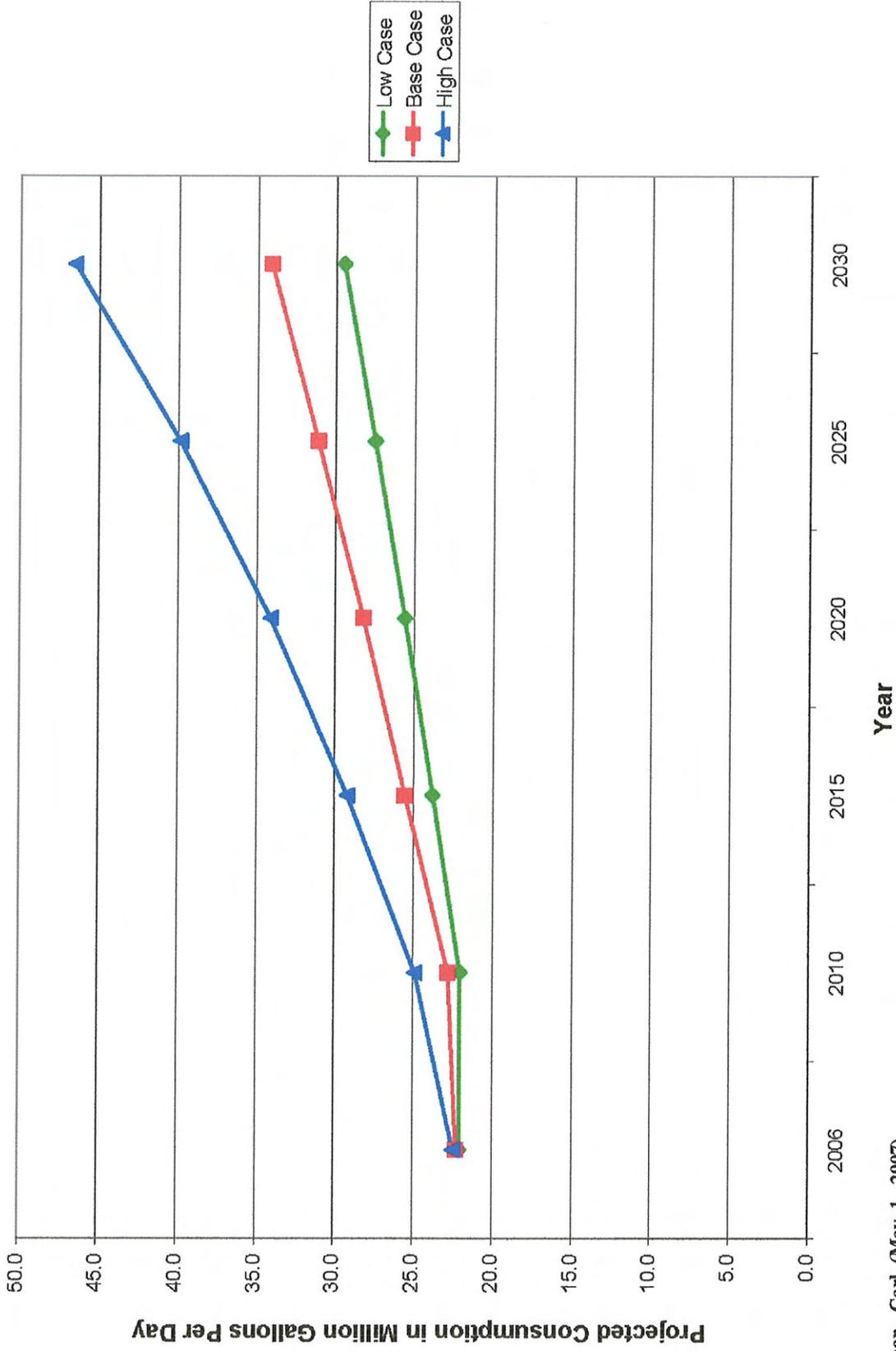


Source: Freedman, Car (May 1, 2007)

**Figure 5** Proposed Wai`ale Water Treatment Facility  
 Historical Potable Water Metered Consumption for Central Maui

Prepared for: A&B Properties, Inc.





Source: Freedman, Carl (May 1, 2007)

**Figure 6** Proposed Wai`ale Water Treatment Facility  
Composite Water Consumption Projections

Prepared for: A&B Properties, Inc.

coordinated with DWS to develop the proposed WTF as an appropriate new source for the County's public water system.

**F. IMPLEMENTATION CONSIDERATIONS**

The Draft EIS will address cost and implementation timing factors related to the proposed WTF.

**II. AFFECTED  
ENVIRONMENT,  
POTENTIAL IMPACTS  
AND MITIGATION  
MEASURES**

## II. AFFECTED ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES

### A. PHYSICAL ENVIRONMENT

#### 1. Surrounding Land Use

##### a. Existing Conditions

The project area is located in the Wailuku-Kahului area. Wailuku is the seat of government within the County. Wailuku, located on the foothills of the West Maui Mountains, encompasses a diverse range of commercial, light industrial, and public uses, as well as older established and newly developed residential areas. Kahului includes the island's only deep water port and the second busiest airport in the State. With its proximity to Kahului Harbor and the Airport, the Kahului region contains a variety of heavy industrial, light industrial, and commercial wholesale and retail activities and services. Three (3) major shopping areas, the Ka`ahumanu Center, Maui Mall and the Kahului Shopping Center, are located in Kahului.

The subject property is adjacent to the Wai`ale Reservoir to the east, and the Maui Community Correctional Center, the Ka Hale A Ke Ola Homeless Resource Center, and the Hale Makana O Wai`ale low-income housing facility to the south. Various commercial properties, such as T.J. Gomes Trucking, are located to the north and west.

Further out, but in the near vicinity, are the Maui Police Department (MPD) headquarters, the State Department of Land and Natural Resources (DLNR) Annex, Kaiser Permanente Medical Clinic, Maui Memorial Medical Center, and the Wailuku Health Center. Multi-family and single-family residential uses of the Kehalani Project District are located west of the project site.

Located to the north, beyond the subject property, is Ka`ahumanu Avenue and the War Memorial Complex. Baldwin High School is located to the

north of the subject property and west of the War Memorial Center Complex. The Maui Lani Project District, which is currently being developed, and the Sand Hills residential area are located to the east and north of the project area, respectively.

**b. Impacts and Mitigation Measures**

The proposed project is located within an area of residential, commercial, public/quasi-public, agricultural and industrial uses. While the proposed project is not anticipated to have an adverse effect on surrounding land uses and activities, land use relationships will be examined in greater detail in the Draft EIS.

**2. Climate, Topography and Soils**

**a. Existing Conditions**

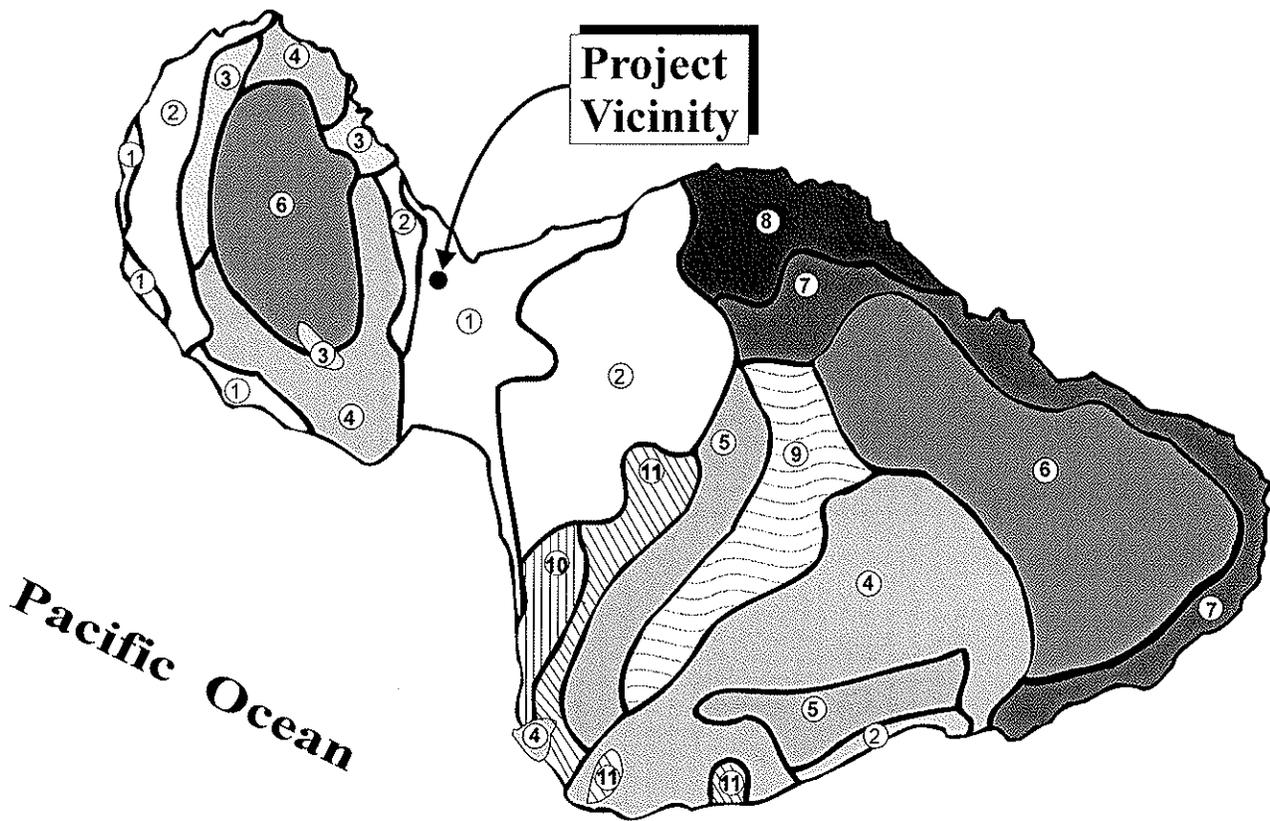
Like most areas of Hawai`i, Maui's climate is relatively uniform year round. Characteristic of Hawai`i's climate, the project area experiences mild and uniform temperatures, moderate humidity and relatively consistent tradewinds. Variations in the Island's climate are largely left to local terrain.

Average temperatures in the project area (based on temperatures recorded at Kahului Airport) range from low 60s to the high 80s. August is historically the warmest month, while January and February are the coolest. Rainfall in the project area averages approximately 20 inches per year. Winds in the Kahului region are predominantly out of the north and northeast. When the trades are blowing, portions of the project site near the shoreline experience brisk winds with velocity decreasing further inland.

Underlying the project area and surrounding lands are soils belonging to the Pulehu-Ewa-Jaucas association. See **Figure 7**. This soil association is characteristically deep and well-drained and located on alluvial fans and basins. The soil type specific to the project area is of the Puuone Sand classification (PZUE). See **Figure 8**. PZUE soils are predominant in the region and are typified by a sandy layer and a cemented sand underlayment.

# LEGEND

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



Map Source: USDA Soil Conservation Service

Figure 7

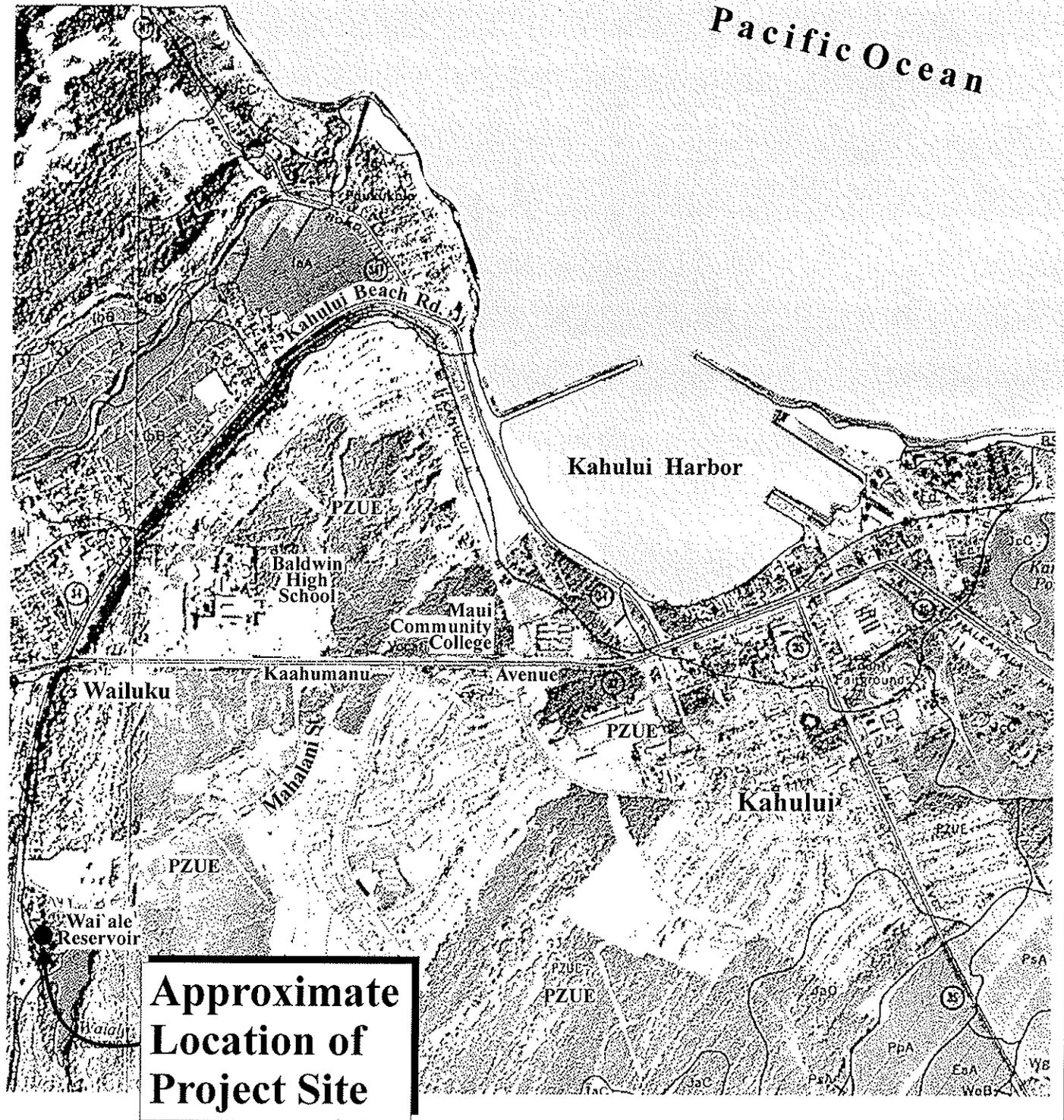
Proposed Wai'ale Water  
Treatment Facility  
Soil Association Map

NOT TO SCALE



Prepared for: A&B Properties, Inc.

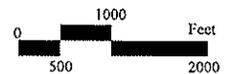
MUNEKIYO & HIRAGA, INC.



**Approximate  
Location of  
Project Site**

Source: USDA, Soil Conservation Service

**Figure 8** Proposed Wai'ale Water Treatment Facility Soil Classification Map



Vegetation associated with this series include bermuda grass, kiawe, and lantana.

The project area is situated within lands that are designated Zone "C" by the Flood Insurance Rate Map. See **Figure 9**. Zone "C" is an area of minimal flooding.

**b. Impacts and Mitigation Measures**

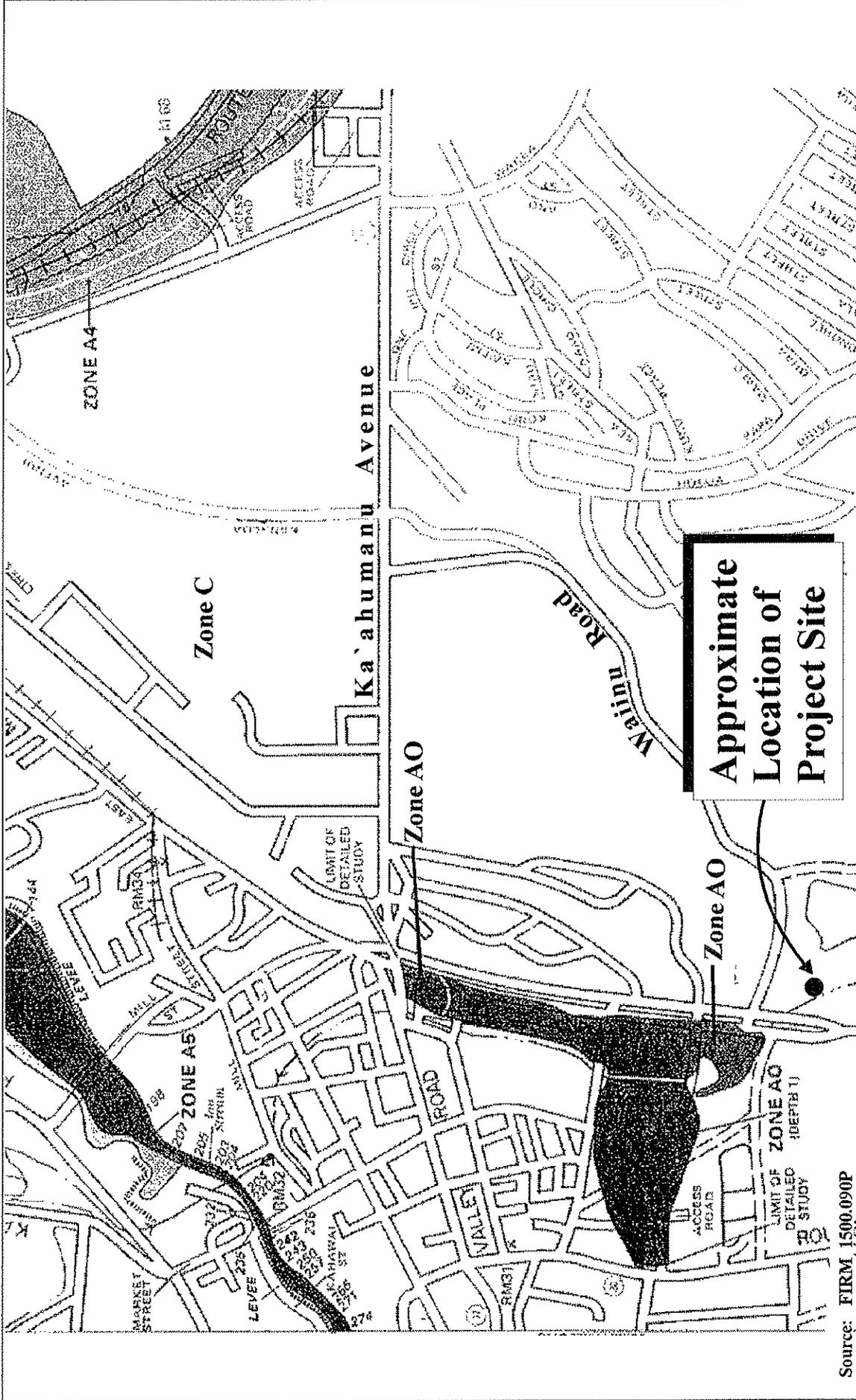
The proposed improvements are not anticipated to adversely alter topographic characteristics in the vicinity. Some grading and grubbing will be required for project implementation. No tsunami or flood-related impacts are associated with the proposed project.

**3. Relationship to Agricultural Productivity**

**a. Existing Conditions**

The Central Maui region has historically served as an area rich in agricultural production, principally sugar cane and pineapple cultivation, and to a lesser extent, macadamia nut production. With the island's economy less reliant on large scale agricultural endeavors, present-day agriculture in Central Maui is by HC&S's sugar plantation which encompasses approximately 35,000 acres of cultivated lands. In addition to its sugar fields, HC&S operates its sugar processing mill and power plant in Pu'unene.

A major component of HC&S' sugar operations is its irrigation systems, which includes surface water collection and transmission systems in East Maui and West Maui. The Hopoi Chute, the proposed source for the WTF is part of the West Maui ditch system. The Draft EIS will describe the West Maui ditch system and its relationship to HC&S's agricultural productivity objectives.



Source: FIRM 1500.090P

**Figure 9** Proposed Wai'ale Water Treatment Facility  
 Flood Insurance Rate Map

NOT TO SCALE



Prepared for: A&B Properties, Inc.



ATA/Wai'aleWTF EA/firm

**b. Impacts and Mitigation Measures**

As noted above, the relationship of the proposed use of water for the WTF and HC&S's agricultural productivity objectives will be described in the Draft EIS.

**4. Flora and Fauna**

**a. Existing Conditions**

Fauna and avifauna that are found in the vicinity of the project area are typical of Wailuku's urban setting. Fauna typically found in the vicinity include mongoose, cats, dogs and rats. Avifauna typically include mynas, several types of doves, house sparrows, and francolin. The site is undeveloped and overgrown with weeds and grasses. There are no known significant habitats or rare, threatened, or endangered species of flora, fauna, or avifauna on the subject property.

**b. Impacts and Mitigation Measures**

A biological resources inventory addressing flora and fauna components on the project site will be conducted, with results presented in the Draft EIS.

**5. Streams and Wetlands**

**a. Existing Conditions**

There are no streams or wetlands in the immediate vicinity of the WTF project site. As previously noted, the source water for the Waiale Reservoirs is the Spreckels Ditch and Hopoi Chute (Waihee Ditch sources). Iao Stream is located approximately one (1) mile to the north of the project site, while Waikapu Stream is located about one and one-fourth (1-1/4) miles from the property. The Kealia Pond, a National Wildlife refuge, is located roughly five (5) miles to the south of the property, while the Kanaha Wildlife Sanctuary is located in Kahului, approximately three (3) miles from the WTF site.

**b. Impacts and Mitigation Measures**

The proposed action is not anticipated to impact wetlands or streams in the Central Maui region.

**6. Historical and Archaeological Resources**

**a. Existing Conditions**

An archaeological assessment was performed for the project site. The archaeological assessment for the project included a pedestrian survey and subsurface testing. No evidence of significant cultural remains were located during the pedestrian survey and the subsurface testing. Intact sand dune deposits were present in all but three (3) test trenches. Soil cores also indicated that sand dune deposits are relatively thick in all test instances.

While there were no historic properties located during the survey, the assessment noted that the Spreckles Ditch (Site 50-50-04-1508) lies to the west of the project site. However, this site will not be impacted by the proposed project.

**b. Impacts and Mitigation Measures**

The archaeological assessment concluded that the Pu'uone Sand Dune is known to contain occasional human burials and that burials have been recovered in the past. Therefore, the possibility exists that human remains could be present in untested areas of the project site. As such, the report recommended archaeological monitoring during all ground altering activities for the project.

Results of the archaeological assessment will be included in the Draft EIS. As recommended, the applicant will conduct archaeological monitoring in accordance with a monitoring plan submitted to the State Historic Preservation Division (SHPD) for review and approval. The monitoring plan, as well, will be described in the Draft EIS.

7. **Cultural Assessment**

a. **Existing Conditions**

Based on historical research of the project area and archaeological review, there are no traditional Native Hawaiian uses for the general project area, with the possible exception of traditional burials. Previous construction in the area, including the Wai`ale Reservoir in the early 1900s likely impacted the area. There are no known modern day cultural uses of the project site.

b. **Impact and Mitigation Measures**

A cultural impact assessment will be conducted for the proposed action. The scope of the assessment will include consultation with those familiar with the project area.

8. **Air and Noise Quality**

a. **Existing Conditions**

Air quality in the Wailuku-Kahului region is considered good, as point sources (e.g., Maui Electric Power Plant, HC&S Mill) and non-point sources (e.g., automobile emissions) of emissions do not generate problematic high concentrations of pollutants. The relatively high quality of air can also be attributed to the region's constant exposure to winds which quickly disperse emissions. This rapid dispersion is evident during sugar cane burning operations in fields south and east of the project site.

Traffic noise generated by vehicles traveling along Wai`ale Road is a source of background noise in the vicinity of the project. Other sources of noise include the recreational activity from the Iron Maehara Baseball Stadium, War Memorial Little League fields, and War Memorial gym, tennis courts and swimming pool. To the east, Kahului Harbor and Kahului Airport operations occasionally add to the background noise level in the surrounding region. The foregoing conditions, however, are not considered to be intrusive given their intermittent and distant locations.

b. **Impacts and Mitigation Measures**

Fugitive dust generated during construction activities may temporarily affect the air quality within the immediate vicinity. Mitigation measures include utilizing dust barriers, waterwagons, and/or sprinklers to control dust, and watering graded areas upon the completion of daily construction activities and/or weekends and holidays, as required.

It is noted that there is a single air monitoring station on the island of Maui, located in North Kihei within the Hale Pi'ilani Park. While the location of the monitoring station is approximately eight (8) miles from the project site, ambient conditions can generally be considered to be similar between the two (2) locations in terms of proximity to point and non-point sources of emissions. As with all monitoring stations in the State of Hawai'i, air quality data for the year 2006 for the Kihei monitoring station, shows that air quality is well within State and National Ambient Air Quality Standards.

On a long-term basis the proposed project is not anticipated to adversely impact air quality.

Ambient noise conditions may be temporarily affected by construction activities. Heavy construction machinery, such as backhoes, dump trucks, front-end loaders, paving equipments, and material-transport vehicles, are anticipated to be the dominant noise-generating sources during the construction period.

Proper equipment and vehicle maintenance are anticipated to minimize noise levels. Equipment mufflers or other noise attenuating equipment may also be employed as required. Site work and building erection activities will be limited to daylight working hours. As needed, interior work (after vertical shell construction is completed) may be undertaken. Such work, however, is not expected to generate noise audible outside of the buildings. On an ongoing post-construction operational basis, noise will be generated by some equipment associated with the WTF, with the primary noise generators being the air blowers and the generator. The equipment will be housed in separated rooms, constructed of CMU walls and concrete ceilings, to provide noise abatement. In addition, sound attenuation panels and louvers will be installed in the building to minimize noise. Once

constructed, the proposed project is not anticipated to generate adverse noise impacts.

9. **Scenic and Open Space Resources**

a. **Existing Conditions**

Scenic resources to the west of the project area include Iao Valley and the West Maui Mountains. The view to the north and south is effectively blocked by Maui Community Correctional Center and other buildings. The Wai`ale Reservoir lies immediately to the east of the major scenic resource. The subject property is overgrown and presents limited scenic resources. See **Figure 10**.

b. **Impacts and Mitigation Measures**

The subject property is not part of a scenic corridor and will not affect views from inland vantage points. In addition, in the context of surrounding public/quasi-public and baseyard uses, the proposed project will not adversely affect the scenic and visual character of the area. The site is currently overgrown and does not present any notable scenic resources.

**B. SOCIO-ECONOMIC ENVIRONMENT AND PUBLIC SERVICES**

1. **Population Parameters**

a. **Existing Conditions**

Maui County has experienced strong growth in recent years. The resident population has increased approximately 24 percent in the ten-year span from 1992 to 2002, from 108,585 in 1992 to 134,139 in 2002. Growth in the County is expected to continue with the resident population projected to rise to 151,300 by 2010 and 174,450 by 2020 (County of Maui, June 2006).



Source: Munekiyo & Hiraga, Inc.

**Figure 10**      **Proposed Wai`ale Water  
Treatment Facility  
Site Photos**

**NOT TO SCALE**

Prepared for: **A&B Properties, Inc.**

  
**MUNEKIYO & HIRAGA, INC.**

ATA/WaialeWTF EA/sitephotos

The Wailuku district has seen even greater growth over this period. The resident population of the district increased approximately 34 percent in the span from 1990 to 2000, from 45,685 in 1990 to 61,345 in 2000 (Maui County Data Book, 2003).

**b. Impacts and Mitigation Measures**

The new WTF will allow the County to supply Central and South Maui with potable water more efficiently and in consonance with projected demand. In particular, the County of Maui’s Socio-Economic Forecast prepared for its General Plan Update process reflects a continued pattern of growth on the island through the year 2030 (County of Maui, 2006). The baseline or mid-point projection indicates that the island’s population will grow from approximately 129,400 in the year 2005 to an estimated 186,200 in the year 2030. This projection also estimates an attendant increase in the number of island households from about 45,500 in the year 2005 to 70,000 in the year 2030.

Similar patterns of growth are projected for the Kihei-Makena Community Plan Region and the Wailuku-Kahului Community Plan Region, as depicted in **Table 1** and **Table 2**.

**Table 1. Population Projections for Kihei-Makena and Wailuku-Kahului Community Plan Regions**

Community Plan Region	Year					
	2005	2010	2015	2020	2025	2030
Kihei-Makena	25,609	28,114	30,597	33,227	35,962	38,757
Wailuku-Kahului	46,626	51,312	55,957	60,877	65,995	71,223
<b>Totals</b>	<b>72,235</b>	<b>79,426</b>	<b>86,554</b>	<b>94,104</b>	<b>101,957</b>	<b>109,980</b>

Source: County of Maui, 2006

**Table 2.** Household Projections for Kihei-Makena and Wailuku-Kahului Community Plan Regions

Community Plan Region	Year					
	2005	2010	2015	2020	2025	2030
Kihei-Makena	10,204	11,286	12,353	13,506	14,705	15,897
Wailuku-Kahului	15,205	17,229	19,226	21,383	23,625	25,855
<b>Totals</b>	<b>25,409</b>	<b>28,515</b>	<b>31,579</b>	<b>34,889</b>	<b>38,330</b>	<b>41,752</b>
Source: County of Maui, 2006						

**2. Economy**

**a. Existing Conditions**

The Kahului region is the island's center of commerce. Combined with neighboring Wailuku, the region's economic character encompasses a broad range of commercial, service, and governmental activities. In addition, the region is surrounded by agricultural lands which include sugar cane and pineapple fields. This vast expanse of agricultural land, managed by HC&S, is considered a key component of the local economy.

**b. Impacts and Mitigation Measures**

On a short-term basis, the project will support construction and construction-related employment. Accordingly, the project will have a beneficial impact on the local economy during the period of construction.

From a current and long-term perspective, the proposed WTF will provide source to meet projected demands in resident and business growth over time. With the continued anticipated growth in the Central Maui region, infrastructure systems, including water source capacity, will need to be developed. Provision of such capacity via the proposed action will support the community's social well-being and enable economic expansion required

to sustain employment growth associated with an increasing resident population.

## **C. PUBLIC SERVICES**

### **1. Recreational Facilities**

#### **a. Existing Conditions**

The Wailuku-Kahului region provides a range of recreational opportunities, including shoreline and boating activities at Kahului Harbor and nearby beach parks, and individual and organized athletic activities available at numerous County parks. The War Memorial complex includes an Olympic-sized swimming pool, locker room, a gymnasium, five (5) Little League baseball fields, a practice soccer field, tennis courts, sumo ring, baseball stadium, as well as the football stadium. The project area is in close proximity to County facilities such as Keopuolani Park, Kahului Community Center and Kanaha Beach Park, as well as Iao Valley State Park.

#### **b. Impacts and Mitigation Measures**

There are no impacts to recreation facilities anticipated from the proposed WTF.

### **2. Police and Fire Protection**

#### **a. Existing Conditions**

Police protection for the Wailuku-Kahului region is provided by MPD headquarters in Wailuku, nearby the project site. The region is served by the MPD's Wailuku patrol division.

Fire prevention, suppression, and protection services for the Wailuku-Kahului region are provided by the Maui Fire Department's (MFD) Wailuku Station, located approximately one (1) mile from the project site. In addition, the MFD's Kahului Station (located on Dairy Road), is approximately three (3) miles from the project site.

**b. Impacts and Mitigation Measures**

Police and fire services are not expected to be adversely impacted by the proposed project. The proposed project will not affect the service capabilities or extend the existing service area limits for emergency services.

**3. Solid Waste**

**a. Existing Conditions**

Single-family residential solid waste collection service is provided by the County of Maui on a once or twice-a-week basis. Residential solid waste collected by County crews is transported to the County's Central Maui Landfill, located 4.0 miles southeast of the Kahului Airport. The Central Maui Landfill also accepts commercial waste from private collection companies.

It is noted that illegal dumping has occurred on the project site with abandoned vehicles, industrial machinery and construction debris.

**b. Impacts and Mitigation Measures**

A solid waste management plan will be developed in coordination with the Solid Waste Division of the County Department of Environmental Management for the disposal of demolition and construction material during construction. For example, abandoned vehicles and industrial machinery will be taken to an on-island metal recycling facility, while construction waste will be hauled to an approved construction waste site. Materials from clearing and grubbing will be taken to an approved composting facility.

Information relating to sludge disposal from WTF operations will be included in the Draft EIS.

4. **Medical Services**

a. **Existing Conditions**

Maui Memorial Medical Center, the Island's only major medical facility, also services the Wailuku-Kahului region. Acute, general and emergency care services are provided by the 231-bed facility. In addition, numerous privately operated medical/dental clinics and offices are located in the area to serve the region's residents. A new Kaiser Permanente medical facility at the corner of Ka`ahumanu Avenue and Maui Lani Parkway was recently opened.

b. **Impacts and Mitigation Measures**

No impacts to medical services are anticipated from the proposed action.

5. **Schools**

a. **Existing Conditions**

The Wailuku-Kahului region is served by the State Department of Education's (DOE) public school system as well as several privately operated schools. DOE facilities in the Kahului area include Lihikai and Kahului Schools (Grades K-5), Maui Waena Intermediate School (Grades 6-8), and Maui High School (Grades 9-12). Existing facilities in the Wailuku area include Wailuku Elementary School (Grades K-5), Iao Intermediate School (Grades 6-8), and Baldwin High School (Grades 9-12). Maui Community College, a branch of the University of Hawai`i, serves as the Island's primary higher education facility.

b. **Impacts and Mitigation Measures**

The school nearest to the project site is Wailuku Elementary, located about one (1) mile away, to the northwest. No impacts to school resources are anticipated from the proposed action.

## **D. INFRASTRUCTURE**

### **1. Roadways**

#### **a. Existing Conditions**

Wai`ale Road is a two-way, two-lane County Roadway, with a posted speed limit of 20 miles per hour in the project area. It terminates to the south at its intersection with Waiko Road and to the north, it becomes Lower Main Street.

Ka`ahumanu Avenue is the main highway arterial that links Wailuku to Kahului and for the most part, is a four-lane, east-west, divided, major State arterial. East of Kahului Beach Road, Ka`ahumanu Avenue is a six-lane divided arterial to Hana Highway. Traffic signal systems, left-turn lanes and right-turn lanes are provided at the major intersections on Ka`ahumanu Avenue. The posted speed on Ka`ahumanu Avenue, in the project vicinity, is 45 miles per hour.

A new access road to the WTF will be developed to connect to the extension of Kuikahi Drive. Additionally, an emergency access will be provided to connect to Waiinu Road, near its intersection with Wai`ale Road.

#### **b. Impacts and Mitigation Measures**

The Draft EIS will include a detailed access plan for the WTF. Construction traffic duration is anticipated to be approximately 15 months, with the following construction phasing:

1. Site work: 2 Months;
2. WTF Construction: 12 Months; and
3. WTF Finish Work: 1 Month.

The average number of construction workers anticipated during the construction period is ten (10). Construction personnel are expected to be at the site approximately nine (9) hours per day, five (5) days a week. As needed, traffic controllers will be posted at the construction ingress and egress point to ensure safe movement of construction vehicles. Once the WTF is completed and in operation, staffing for WTF operations is anticipated to be between four (4) and eight (8) people, eight (8) hours a day, seven (7) days a week. Neither of these staffing requirements are deemed to be sufficient to create adverse traffic impacts in the area.

2. **Wastewater**

a. **Existing Conditions**

There are no wastewater facilities on the currently undeveloped subject property.

Domestic wastewater generated in the Wailuku-Kahului region is conveyed to the County's Wailuku-Kahului Wastewater Treatment Facility located one-half mile east of Kahului Harbor. The design capacity of the facility is 7.9 million gallons per day (MGD). Average daily flow currently processed through the plant is approximately 5.2 MGD.

b. **Impacts and Mitigation Measures**

Wastewater generated from the site, including the restroom facilities and water from the floor drains throughout the Treatment Plant Building and Chorinator Building, will flow by gravity to a package grinder pump station. The wastewater will then be pumped to the County's wastewater system in Wai'ale Road via a 1 ½-inch force main. The force main will run parallel to the Spreckels Ditch. The wastewater utility plan for the WTF will be described in the Draft EIS.

### 3. Water

#### a. Existing Conditions

The Wailuku-Kahului region is served by the Department of Water Supply's (DWS) domestic water system. The majority of the water for the Central Maui water system is provided by wells in Mokuhanu in Iao Valley and in Upper Waiehu. These well sources draw water from the basal lens referred to as the Iao Aquifer, which has an estimated sustainable yield of 20 MGD. These wells are augmented by the Iao Water Treatment Facility which draws water from the Iao-Waikapu Ditch. The balance of the water is withdrawn from the adjacent Waihee Aquifer to supplement that from Iao.

It is noted that the Iao Aquifer has been designated a groundwater management area by the State Commission on Water Resources Management. The DWS is therefore managing and limiting the allocation of new meters to ensure that the available source is not exceeded. New source development (e.g., Kupa'a Well and Maui Lani Wells) is being implemented by the DWS with new surface treatment capabilities, new wells and reallocation of source from wells outside the Iao Aquifer system.

#### b. Impacts and Mitigation Measures

As noted previously, the WTF will encompass three (3) filter units with a sustained average production capacity of approximately nine (9) mgd. Future expansion of the plant may be accomplished based on space provided at the WTF. The Wai'ale WTF will increase the amount of potable water available to Central Maui customers where the additional production of potable water is viewed as an important infrastructure system improvement.

Water service for the Treatment Building and facilities will be provided via an 8-inch service waterline, which will tap into the DWS main in Wai'ale Road. The service waterline will run parallel to the Spreckels Ditch. The service line will provide source water for the WTF plumbing fixtures, washdown facilities, etc. The service line will also provide for fire

protection for the WTF via the onsite fire hydrant and sprinkler system within the chlorinator building. The water system utility connection plan will be described in the Draft EIS.

**4. Drainage**

**a. Existing Conditions**

There are no drainage improvements on the undeveloped property. Storm water generally sheet flows into the Upper Wai`ale Reservoir or percolates onto the ground. Excess runoff flows along the grade.

**b. Impacts and Mitigation Measures**

The proposed onsite grading will continue to direct storm water runoff and discharge it into the Upper Wai`ale Reservoir. This will be accomplished by the construction of a drainage system to collect storm water runoff for discharge. Included in the drainage improvements are concrete gutters which direct storm water into inlets before being discharged at headwalls, designed to avoid erosion of the outlet. The Upper Wai`ale Reservoir will continue to serve as the retention basin for the project site. Soil erosion and drainage mitigation measures (Best Management Practices or BMPs) will be implemented during construction, as required by the Chapter 20.08, Maui County Code, relating to Soil Erosion and Sediment Control. Additionally, compliance with the National Pollutant Discharge Elimination System Permit (NPDES) will be required to manage discharges of stormwater associated with construction activities. The drainage system plan will be included in the Draft EIS.

**5. Electricity and Telephone Systems**

**a. Existing Conditions**

Electrical and telephone overhead distribution lines are available on Wai`ale Road. Electrical service is provided by Maui Electrical Company, Ltd. Telephone service is provided by Hawaiian Telcom.

b. **Impacts and Mitigation Measures**

Electrical power and telephone system services will be provided by Maui Electric Company, Ltd. and Hawaiian Telecom. Coordination with these utility companies will be undertaken during the engineering design phase of work.

E. **CUMULATIVE AND SECONDARY IMPACTS**

A cumulative impact is defined as *"the impact on 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."* Cumulative impacts of the proposed WTP will be addressed in the Draft EIS in the context of candidate resource development strategies advanced by the County's Draft WUDP.

A "secondary impact" or "indirect effect" from the proposed action means *"effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable."* Secondary effects of the project will be addressed in the Draft EIS.

**III. RELATIONSHIP TO  
GOVERNMENTAL PLANS,  
POLICIES AND  
CONTROLS**

### III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES AND CONTROLS

#### A. STATE LAND USE DISTRICTS

Chapter 205, HRS, relating to the Land Use Commission, establishes the four major land use districts in which all lands in the State are placed. These districts are designated "Urban", "Rural", "Agricultural", and "Conservation". The subject property is within the "Urban" district. See **Figure 11**. The proposed action is consistent with the provisions of the "Urban" district.

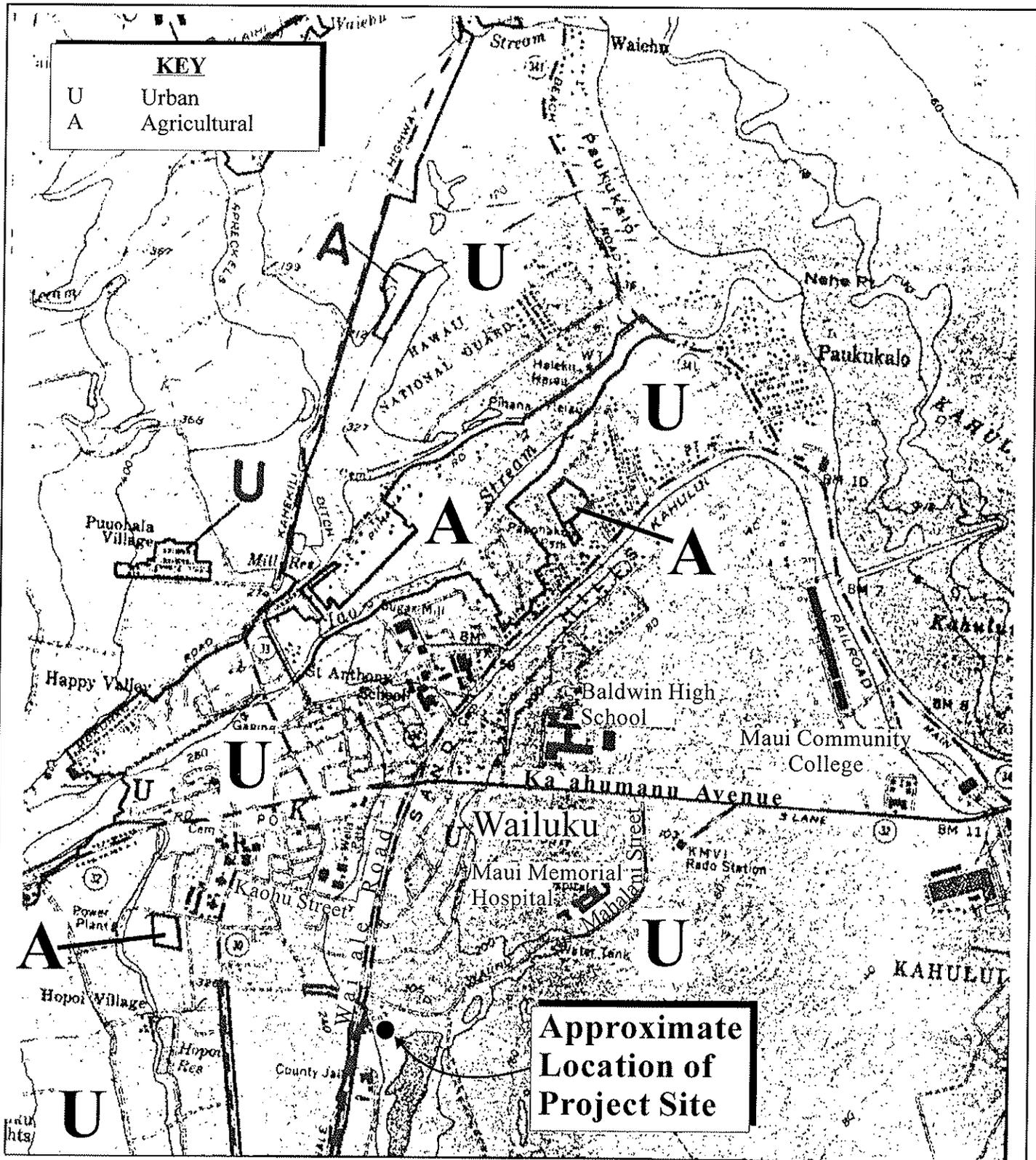
#### B. HAWAII STATE PLAN

Chapter 226, HRS, also known as the Hawai'i State Plan, is a long-range comprehensive plan which serves as a guide for the future long-range development of the State by identifying goals, objectives, policies, and priorities, as well as implementation mechanisms. The goals, objectives, policies, and priority guidelines which contribute to the development of the proposed project include the following:

- a. Goal: Physical, social, and economic well-being, for individuals and families in Hawai'i, that nourishes a sense of community responsibility, of caring, and of participating in community life.

The proposed project also promotes the following State Plan objectives, policies, and priority guidelines:

<b>Sec. 226-5</b>	<b><u>Objectives and policies for population.</u></b>
<b>Policy (b)(7)</b>	Plan the development and availability of land and water resources in a coordinated manner to provide for the desired levels of growth in each geographic area.
<b>Sec. 226-11</b>	<b><u>Objectives and policies for the physical environment-land-based, shoreline, and marine resources.</u></b>



Source: State Land Use Commission

Figure 11 Proposed Wai'ale Water Treatment Facility State Land Use Designations

NOT TO SCALE



Prepared for: A&B Properties, Inc.

MUNEKIYO & HIRAGA, INC.

**Policy (b)(2)** Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.

**Policy (b)(3)** Take into account the physical attributes of areas when planning and designing activities and facilities.

**Policy (b)(4)** Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.

**Sec. 226-13** **Objectives and policies for the physical environment-land, air, and water quality.**

**Policy (b)(2)** Promote the proper management of Hawai'i's land and water resources.

**Sec. 226-14** **Objective and policies for facility systems--in general.**

**Objective (a)** Planning for the State's facility systems in general shall be directed towards achievement of the objective of water, transportation, waste disposal, and energy and telecommunication systems that support statewide social, economic, and physical objectives.

**Policy (b)(1)** Accommodate the needs of Hawai'i's people through coordination of facility systems and capital improvement priorities in consonance with State and County plans.

**Sec. 226-16** **Objective and policies for facility systems-water.**

**Objective (a)** Planning for the State's facility systems with regard to water shall be directed towards achievement of the objective of the provision of water to adequately accommodate domestic, agricultural, commercial, industrial, recreational, and other needs within resource capacities.

**Policy (b)(4)** Assist in improving the quality, efficiency, service, and storage capabilities of water systems for domestic and agricultural use.

**Sec. 226-27** **Objectives and policies for socio-cultural advancement-government.**

**Policy (b)(1)** Provide for necessary public goods and services not assumed by the private sector.

## C. 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:

*...indicate desired population and physical development patterns for each island within the county; shall address the unique problems and needs of each island and region; shall explain the opportunities and the social, economic, and environmental consequences related to 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:

### ENVIRONMENT

#### **Objective:**

To use the County's land-based physical and ocean-related coastal resources in a manner consistent with sound environmental planning practice.

#### **Policy:**

Evaluate all land based development relative to its impact on the County's land and ocean ecological resources.

### WATER

#### **Objective:**

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

**Policy:**

Monitor growth activities throughout Maui County in order that development of new water sources is concurrent with approval of new developments.

**PUBLIC UTILITIES AND FACILITIES**

**Objectives:**

- To anticipate and provide public utilities which will meet community needs in a timely manner.
- To improve the quality and availability of public facilities throughout Maui County.

**D. WAILUKU-KAHULUI COMMUNITY PLAN**

The subject parcel is located in the Wailuku-Kahului Community Plan region which is one of nine Community Plan regions established in the County of Maui. Planning for each region is guided by the respective Community Plans, which are designed to implement the Maui County General Plan. Each Community Plan contains recommendations and standards which guide the sequencing, patterns and characteristics of future development.

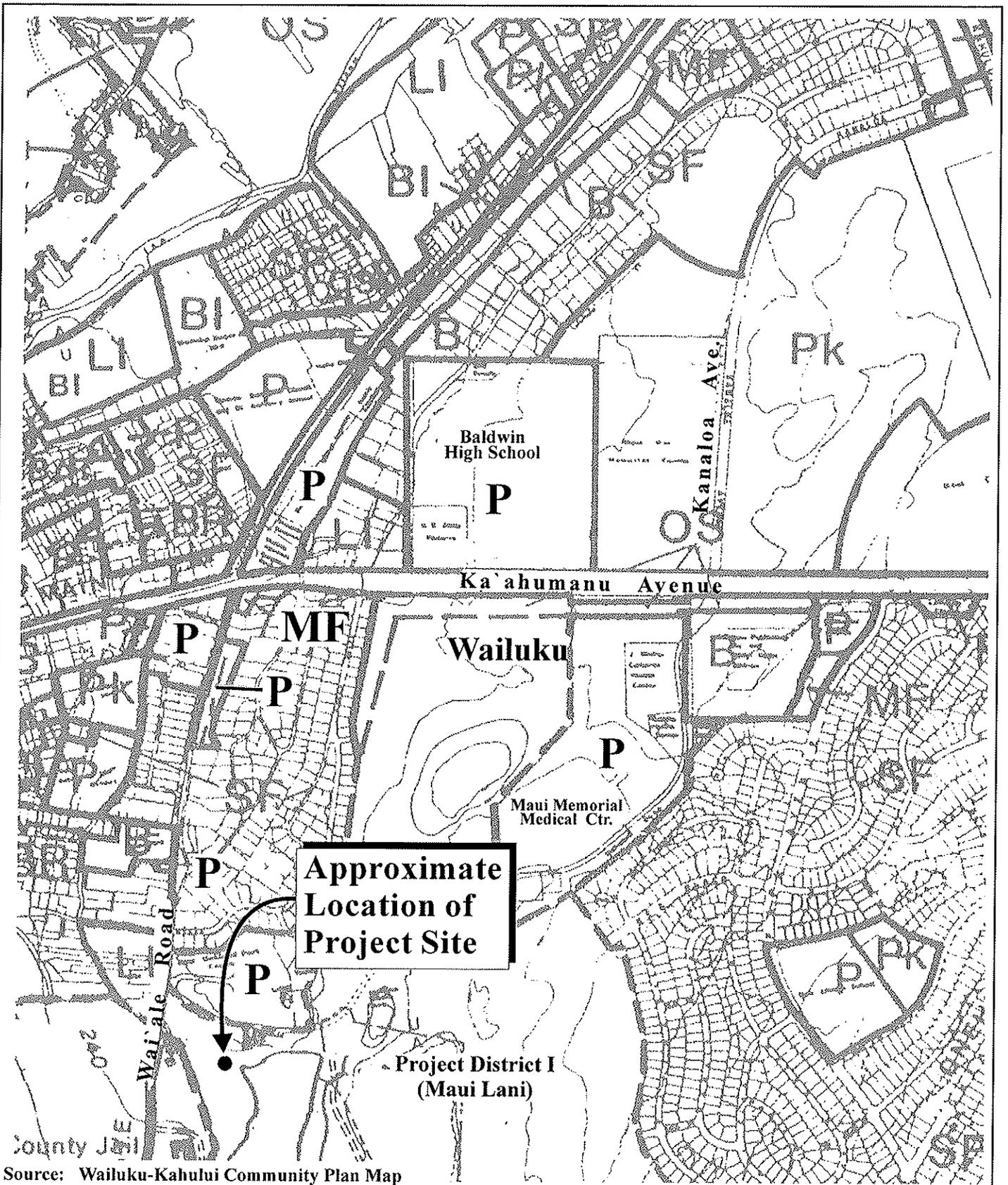
Land use guidelines are set forth by the Wailuku-Kahului Community Plan Land Use Map. The subject property is designated "Public/Quasi-Public" by the Community Plan. See **Figure 12**. The proposed improvements are consistent with the following goals, objectives and policies of the Community Plan, Wailuku-Kahului Community Plan.

**CULTURAL RESOURCES**

**Goal:**

Identification, protection, preservation, enhancement, and where appropriate, use of cultural practices and sites, historic sites and structures, and cultural landscapes and view planes that:

1. Provide a sense of history and define a sense of place for the Wailuku-Kahului region; and



Source: Wailuku-Kahului Community Plan Map

Figure 12

Proposed Wai'ale Water Treatment Facility  
Community Plan Designations

NOT TO SCALE



2. Preserve and protect native Hawaiian rights and practices customarily and traditionally exercised for subsistence, cultural and religious purposes in accordance with Article XII, Section 7, of the Hawai`i State Constitution, and the Hawai`i Supreme Court's PASH opinion, 79 HAW. 425 (1995).

**Objectives and Policies:**

Require development projects to identify all cultural resources located within the project area as part of initial project studies. Further, require that all proposed activity include recommendations to mitigate potential adverse impacts on cultural resources.

**INFRASTRUCTURE**

**Goal:**

Timely and environmentally sound planning, development and maintenance of infrastructure systems which serve to protect and preserve the safety and health of the region's residents, commuters and visitors through the provision of clean water, effective waste disposal and drainage systems, and efficient transportation systems which meet the needs of the community.

**Objectives and Policies:**

- Coordinate water system improvement plans with growth areas to ensure adequate supply and a program to replace deteriorating portions of the distribution system. Future growth should be phased to be in concert with the service capacity of the water system.
- Coordinate expansion of and improvements to the water system to coincide with the development of residential expansion areas.

**E. COUNTY ZONING**

The existing County zoning for the subject property is "M-2, Heavy Industrial". The proposed project is consistent with the underlying heavy industrial zoning designation.

## **F. COUNTY WATER USE AND DEVELOPMENT PLAN**

The DWS is in the process of updating its Water Use and Development Plan (WUDP). The updated WUDP will be adopted by ordinance and serve as the long-range planning blueprint for all uses of water in each county. Each plan must also be approved by the State of Hawai'i's Commission on Water Resource Management (CWRM). The updated WUDP is also related to the County's current General Plan update process. The Draft EIS will discuss the pertinent elements of the WUDP as it relates to the proposed WTP. In addition, the Draft EIS will discuss the current status of the General Plan update process, including planning considerations relating to the proposed WTP.

## **G. COASTAL ZONE MANAGEMENT CONSIDERATIONS**

The Hawai'i Coastal Zone Management Program (HCZMP), as formalized in Chapter 205A, HRS, establishes objectives and policies for the preservation, protection and restoration of natural resources of Hawai'i's coastal zone.

As set forth in Chapter 205A, HRS, this section addresses the project's relationship to applicable coastal zone management considerations. It is noted, that the subject property is not within the County of Maui's Special Management Area.

### **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 proposed action is not anticipated to impact coastal recreational opportunities or affect existing public access to the shoreline. The project is intended to improve the supply of potable water to residents of Central Maui. The project is not a direct generator of, nor does it create a demand for, regional recreational resources.

## 2. **Historical/Cultural 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:** There are no known or suspected historic sites to be affected by the proposed action. The project site has been extensively altered in the past by grubbing and grading activities. The Draft EIS will describe archaeological monitoring parameters for the project site. In addition, a cultural impact assessment will be included in the Draft EIS. It is noted that should human remains be inadvertently discovered during earth moving activities, work shall cease at once in the immediate area of the find, and the find shall be protected from further disturbance. The SHPD shall also be immediately notified and procedures for the treatment of inadvertently discovered human remains shall be followed pursuant to Chapter 6E, HRS.

**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 proposed action is not contrary to the objectives and policies for scenic and open space resources. The subject property does not occupy a scenic

viewplane corridor. In the context of surrounding Public/Quasi-Public and baseyard uses, the proposed WTF will not adversely affect the scenic and visual character of the area.

#### 4. Coastal Ecosystem

**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:** The proposed action is not expected to adversely impact coastal ecosystems. Appropriate erosion control measures (Best Management Practices or BMPs) will be implemented to minimize the effects of storm water runoff during construction of the project and to ensure that coastal ecosystems are not adversely impacted. The project contractor shall comply with provisions and conditions of Chapter 20.08 of the Maui County Code and the NPDES permit.

#### 5. Economic Use

**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 at such areas, and permit coastal dependent development outside of presently designated areas when:
  - (i) Use of presently designated locations is not feasible;
  - (ii) Adverse environmental effects are minimized; and
  - (iii) The development is important to the State's economy.

**Response:** The proposed project provides a facility that is important to the local economy. The proposed action is not coastal dependent and is not contrary to the objective and policies 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:** The project site falls within Zone C, an area of minimal flooding. Drainage improvements will be designed in accordance with the Drainage Standards of the County of Maui to ensure that the project will not adversely affect downstream and adjoining properties from the effects of flooding and erosion.

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:** An EIS is being prepared for public review in compliance with Chapter 343, HRS, and Chapter 200 of Title 11, Administrative Rules, *Environmental Impact Statement Rules*.

In addition, all aspects of development will be conducted in accordance with applicable State and County requirements.

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:** Opportunities for public awareness, education, and participation in coastal management are provided through the Chapter 343, HRS, environmental review process.

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 subject property is not adjacent to or in the near vicinity of the shoreline and will not impact shoreline processes.

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.

**Resources:** Best Management Practices (BMP's) will be incorporated during construction to control runoff in support the policies of effective management of marine resources.

**H. OTHER REGULATORY REQUIREMENTS**

The proposed project will comply with applicable regulatory requirements for site work and construction, including but not limited to obtaining the necessary grubbing, grading, building, plumbing, and electrical permits.

**IV. SUMMARY OF  
ADVERSE  
ENVIRONMENTAL  
EFFECTS WHICH  
CANNOT BE AVOIDED**

## **IV. SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED**

The proposed project will result in temporary construction-related impacts. Potential effects include noise-generated impacts occurring from site preparation and construction activities. In addition, there may be temporary air quality impacts associated with dust generated from construction activities, and exhaust emissions discharged by construction equipment.

Other unavoidable adverse effects which are identified through the Draft EIS preparation process will be incorporated in this section of the Draft EIS.

## **V. ALTERNATIVES TO THE PROPOSED ACTION**

## V. ALTERNATIVES TO THE PROPOSED ACTION

The Draft EIS will include a separate and distinct section addressing alternatives to the proposed action. The following discussion represents a preliminary evaluation of alternatives considered for the WTF.

### A. NO ACTION ALTERNATIVE

The “no action” alternative would see the near-term availability of potable water for Central Maui remain at current levels. Without the project, impacts identified in earlier sections of this document would not occur. The "no action" alternative, however, will not address the purpose and need for the project. An additional source of water is needed to meet current and projected needs for the Central Maui region. An insufficient water supply is deemed an undesirable alternative and the "no action" option was rejected.

### B. DEFERRED ACTION ALTERNATIVE

A “deferred action” alternative would have similar consequences to the “no action” alternative in terms of near-term production capacity for potable water. This alternative could result in potentially higher development costs due to increases in labor and material costs. Project-related impacts will occur at a later time under this option, and the provision of a new source will be delayed. Accordingly, the "deferred action" option was not considered beneficial.

### C. ALTERNATIVE DESIGNS

Other design alternatives were considered in the planning of the project, including alternative systems and configurations of the site. The alternative site layouts and system designs can be accommodated within the existing site footprint and are not expected to result in impacts different from the selected alternative. The proposed action was selected based on its process efficiency and operational characteristics.

## **D. ALTERNATIVE WATER SOURCES**

There are alternative sources of water being considered by the DWS in its formulation of the Water Use and Development Plan. The proposed Waiale WTF is one of the surface water options identified by the County. Other surface water candidate strategies include the possible use of water from Iao Stream during high water stages for storage and later treatment (Freedman, 2006). The primary engineering consideration associated with this alternative is the need to provide sufficient storage to handle waters diverted during high flow events.

In addition to surface water alternatives, groundwater production options are also available for consideration. Among the options available are the development of additional wells at the North Waihee Aquifer, development of wells at the Kahakuloa Aquifer, use of existing high level production tunnels at the Waihee Stream, and use of brackish water and saltwater desalination technology.

As part of the Water Use and Development Plan formulation process, the DWS will complete a detailed evaluation of alternatives, which will consider criteria such as sustainability, quality, cost, and environmental sensitivities. Through this evaluation process, source development strategies will be identified for development and implementation.

**VI. IRREVERSIBLE AND  
IRRETRIEVABLE  
COMMITMENTS OF  
RESOURCES**

## **VI. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES**

The proposed action will involve the commitment of fuel, labor, funding, and material resources. The development of the proposed project would also involve a commitment of land which would preclude other land use options for the project site. The commitment of land for the proposed improvements is consistent with the existing and Community Plan land uses surrounding the subject property.

Inasmuch as water is a resource commitment, the Draft EIS will examine the relationship of water use for domestic supply with respect to other competing needs, such as agriculture and stream restoration.

**VII. OTHER ELEMENTS  
TO BE ADDRESSED IN  
THE DRAFT EIS**

## **VII. OTHER ELEMENTS TO BE ADDRESSED IN THE DRAFT EIS**

The Draft EIS will address all elements of Section 11-200-16 of the Hawai'i Administrative Rules relating to Environmental Impact Statements. This section of the rules provides that the Draft EIS address specific content requirements for EIS documents. In this regard, the Draft EIS will also address the following topics:

- Relationship between local short-term uses of humanity's environment and the maintenance and enhancement of long-term productivity; and
- Unresolved issues.

# **VIII. LIST OF PERMITS AND APPROVALS**

## VIII. LIST OF PERMITS AND APPROVALS

The following State and County permits and approvals will be required prior to the implementation of the project.

### State of Hawai'i

1. NPDES Permit for Discharges of Stormwater from Construction Activities
2. NPDES Permit for Discharges of Decanted Filter Backwash Water from the WTF to Waters of the State (Wai'ale Reservoirs)
3. Air Pollution Control Permit, if required, for the Emergency Diesel Generator and/or Chlorine Scrubber
4. Noise Permit, as applicable, during project construction.

### County of Maui

1. Construction Permits (e.g., grubbing, grading, building, electrical, plumbing)
2. Combustible Liquid Storage Tank Permit from Maui Fire Department
3. Hazardous Materials Permit from the Maui Fire Department Storage/Use of Chlorine Gas and Caustic Soda

**IX. AGENCIES AND  
ORGANIZATIONS  
CONSULTED FOR THE  
PREPARATION OF THE  
EISPN; LETTERS  
RECEIVED AND  
RESPONSES TO  
SUBSTANTIVE  
COMMENTS**

# IX. AGENCIES AND ORGANIZATIONS CONSULTED FOR THE PREPARATION OF THE EISPN; LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENTS

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

- |   |  |
|---|--|
| <p>1. Ranae Ganske-Cerizo, Acting<br/>District Conservationist<br/><b>Natural Resources Conservation Service</b><br/><b>U.S. Department of Agriculture</b><br/>210 Imi Kala Street, Suite 209<br/>Wailuku, Hawai'i 96793-2100</p> | <p>6. Peter Young<br/>State of Hawai'i<br/><b>Department of Land and Natural Resources</b><br/>P. O. Box 621<br/>Honolulu, Hawai'i 96809</p>   |
| <p>2. George Young<br/>Chief, Regulatory Branch<br/><b>U.S. Department of the Army</b><br/>U.S. Army Engineer District, Honolulu<br/>Building 230<br/>Fort Shafter, Hawai'i 96858-5440</p>  | <p>7. Melanie Chinen, Administrator<br/>State of Hawai'i<br/><b>Department of Land and Natural Resources</b><br/><b>State Historic Preservation Division</b><br/>601 Kamokila Blvd., Room 555<br/>Kapolei, Hawai'i 96707</p> |
| <p>3. Robert P. Smith<br/>Pacific Islands Manager<br/><b>U. S. Fish and Wildlife Service</b><br/>300 Ala Moana Blvd., Rm. 3-122,<br/>Box 50088<br/>Honolulu, Hawai'i 96813</p>  | <p>8. Rodney Haraga, Director<br/>State of Hawai'i<br/><b>Department of Transportation</b><br/>869 Punchbowl Street<br/>Honolulu, Hawai'i 96813</p>  |
| <p>4. Chiyome L. Fukino, M.D., Director<br/>State of Hawai'i<br/><b>Department of Health</b><br/>P. O. Box 3378<br/>Honolulu, Hawai'i 96814</p>   | <p>cc: Ferdinand Cajigal, Maui District<br/>Engineer</p>   |
| <p>5. Herbert Matsubayashi<br/>District Environmental Health<br/>Program Chief<br/>State of Hawai'i<br/><b>Department of Health</b><br/>54 High Street<br/>Wailuku, Hawai'i 96793</p>   | <p>9. Clyde Namu'o, Administrator<br/><b>Office of Hawaiian Affairs</b><br/>711 Kapiolani Boulevard, Suite 500<br/>Honolulu, Hawai'i 96813</p>   |
|   | <p>10. Carl Kaupalolo, Chief<br/>County of Maui<br/><b>Department of Fire and Public Safety</b><br/>200 Dairy Road<br/>Kahului, Hawai'i 96732</p>  |

11. Michael W. Foley, Director  
County of Maui  
**Department of Planning**  
250 South High Street  
Wailuku, Hawai'i 96793
12. Glenn Correa, Director  
County of Maui  
**Department of Parks and Recreation**  
700 Hali'a Nako Street, Unit 2  
Wailuku, Hawai'i 96793
13. Milton Arakawa, Director  
County of Maui  
**Department of Public Works and  
Environmental Management**  
200 South High Street  
Wailuku, Hawai'i 96793
14. Thomas Phillips, Chief  
County of Maui  
**Police Department**  
55 Mahalani Street  
Wailuku, Hawai'i 96793
15. George Tengan, Director  
County of Maui  
**Department of Water Supply**  
200 South High Street  
Wailuku, Hawai'i 96793
16. Kyle Ginoza, Director  
County of Maui  
**Department of Transportation**  
200 South High Street  
Wailuku, Hawai'i 96793
17. Jimmy Lawrence  
**Kahului Town Association**  
117 West Papa Avenue  
Kahului, Hawai'i 96732
18. Ed Reinhardt  
**Maui Electric Company, Ltd.**  
P. O. Box 398  
Kahului, Hawai'i 96733
19. **Maui Lani Community Association**  
c/o Barbara Kojima, Property Manager  
P. O. Box 1642  
Kahului, Hawai'i 96733



REPLY TO  
ATTENTION OF

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

February 7, 2005

Regulatory Branch

Mr. Daren Suzuki  
Project Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, HI 96793

Dear Mr. Suzuki:

This responds to a request for a pre-assessment consultation prior to preparing a draft Environmental Assessment (dEA) which will address activities and impacts of the proposed Wailuku Water Treatment Facility, Wailuku, Maui Island (TMK (2) 3-8-046: por. 20).

The dEA should indicate that no waters of the United States, as represented by the presence of perennial or intermittent streams and wetlands, are in, or adjacent to, the proposed project area. The dEA should state in appropriate sections that the source waters for the Waiale reservoirs are provided by diversions of water from Waihee Ditch via the Hopoi Chute and Waiehu Stream, South Fork **AND** that there is no existing surface connection for the drainage of Waiale reservoir waters back into waters that are tributary to the Pacific Ocean. When the dEA addresses this information, it can be determined, upon receipt of the dEA, that a Department of Army (DA) permit for Section 404 activities of the Clean Water Act will not be required for the proposed water treatment improvements at this location in Wailuku.

Thank you for your consideration of potential impacts to the aquatic environment of the Iao and Waihee watersheds. Please contact Mr. Farley Watanabe of my staff at 808-438-7701, or facsimile 808-438-4060, if you have any questions or need additional information. Please refer to File Number **POH-2005-33** in any future correspondence regarding this project.

Sincerely,

A handwritten signature in black ink, appearing to read "George P. Young".

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

April 4, 2005

George Young, Chief  
**Department of the Army**  
Regulatory Branch  
U. S. Army Engineer District, Honolulu  
Building 230  
Ft. Shafter, Hawaii 96858

SUBJECT: Proposed Waiale Reservoir Water Treatment Facility, Wailuku, Maui,  
TMK (2) 3-8-046:020

Dear Chief Young:

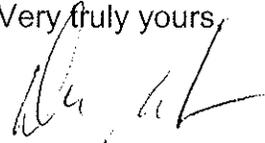
Thank you for your letter of February 7, 2005, responding to our request for early consultation comments for the proposed water treatment facility at TMK (2) 3-8-046:020, Wailuku, Maui. In response to your comments, we note the following:

1. The Draft Environmental Assessment (EA) will indicate that no waters of the United States, including perennial or intermittent streams or wetlands, are in or adjacent to the proposed project.
2. The Draft EA will also note the source waters for the Waiale Reservoir and that there is no surface connection for the drainage of reservoir waters into the Pacific Ocean, directly or indirectly.
3. We acknowledge that the above information will allow the Department of the Army to make a determination regarding permitting under Section 404 of the Clean Water Act.

George Young, Chief  
April 4, 2005  
Page 2

Thank you again for providing your input to the proposed action. A copy of the Draft Environmental Assessment will be provided to your office for review and comment.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Daren Suzuki', written over a dotted line.

Daren Suzuki, Planner

DS:yp

cc: Ivan Nakatsuka, Austin, Tsutsumi & Associates, Inc.

Alalwaialewif ealdpwem.res

JAN 27 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

January 25, 2005

Mr. Daren Suzuki, Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawai'i 96793

Dear Mr. Suzuki:

Subject: **Proposed Water Treatment Facility**  
**TMK: (2) 3-8-046: 020**

Thank you for the opportunity to participate in the early consultation process for the environmental assessment. The following comments are offered:

1. The treated surface water produced by the water treatment facility will supplement the sources that supply the Department of Water Supply's Wailuku Water System. Review and approval of the construction plans by the Safe Drinking Water Branch of the Department of Health is required.
2. National Pollutant Discharge Elimination System (NPDES) permit coverage may be required for this project. The Clean Water Branch should be contacted at 808 586-4309.
3. The noise created during the construction phase of the project may exceed the maximum allowable levels as 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 984-8230.

Sincerely,

A handwritten signature in blue ink, appearing to read "H. Matsubayashi".

Herbert S. Matsubayashi  
District Environmental Health Program Chief

c: SDWB  
CWB

April 4, 2005

Herbert Matsubayashi  
State of Hawaii  
Department of Health  
**Maui District Health Office**  
54 High Street  
Wailuku, Hawaii 96793

SUBJECT: Proposed Waiale Reservoir Water Treatment Facility, Wailuku, Maui,  
TMK (2) 3-8-046:020

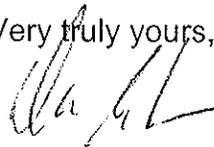
Dear Mr. Matsubayashi:

Thank you for your letter of January 31, 2005, responding to our request for early consultation comments for the proposed water treatment facility at TMK (2) 3-8-046:020, Wailuku, Maui. In response to your comments, we note the following:

1. Coordination will be undertaken with the Department of Health's Safe Drinking Water Branch for appropriate review and approval of the proposed project.
2. We acknowledge your comments regarding National Pollutant Discharge Elimination System (NPDES) permits. Appropriate permitting will be sought for the proposed project.
3. We acknowledge that a noise permit may be required for the proposed action. The applicant shall comply with all applicable requirements of Chapter 11-46, Hawaii Administrative Rules.

Thank you again for providing your input to the proposed action. A copy of the Draft Environmental Assessment will be provided to your office for review and comment.

Very truly yours,



Daren Suzuki, Planner

DS:yp

cc: Ivan Nakatsuka, Austin, Tsutsumi & Associates, Inc.

Ataiwaialewf ealmeco.res

environment  
planning 5

LINDA LINGLE  
GOVERNOR



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

FEB 09 2005

RODNEY K. HARAGA  
DIRECTOR

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

IN REPLY REFER TO:

STP 8.1570

January 31, 2005

Mr. Daren Suzuki  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Suzuki:

Subject: Proposed Water Treatment Facility, Waiale Reservoir, Wailuku, Maui

In reply to your request for our review of the subject proposed project to construct a water treatment facility, this is to advise you that the facility will not have an impact on our State transportation facilities.

We appreciate the courtesy of your advance consultation notice and the opportunity to provide our comments.

Very truly yours,

  
RODNEY K. HARAGA  
Director of Transportation



**STATE OF HAWAII**  
**OFFICE OF HAWAIIAN AFFAIRS**  
711 KAPI'OLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813

HRD05/1702

January 25, 2005

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

**RE: Request for Pre-Consultation for a Proposed Water Treatment Facility, Wailuku, Maui, TMK: 3-8-046:020**

Dear Daren Suzuki,

The Office of Hawaiian Affairs (OHA) is in receipt of your January 11, 2005, request for comments on the above project, which would include the development of a surface water treatment facility to provide a supplement to domestic water supply from Iao and Waihee aquifers. OHA has no comments at this time, but looks forward to reviewing your forthcoming Draft Environmental Assessment.

Thank you for the opportunity to comment. If you have further questions, please contact Heidi Guth at 594-1962 or e-mail her at [heidig@oha.org](mailto:heidig@oha.org).

Sincerely,

A handwritten signature in black ink, appearing to read "Clyde W. Nāmu'o".

Clyde W. Nāmu'o  
Administrator

JUN 24 2005

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

June 20, 2005

Mr. Darren Suzuki  
Munekiyo & Hiraga, Inc.  
305 South High Street, Suite 104  
Wailuku, Hawaii 96793

LOG NO: 2005.1225  
DOC NO: 0506CD25

Dear Mr. Suzuki:

**SUBJECT: Chapter 6E-8 Historic Preservation Review – Early Consultation for a Proposed Water Treatment Facility  
Wailuku Ahupua`a, Wailuku District, Island of Maui  
TMK: (2) 3-8-046:020**

Thank you for the opportunity to provide comments for the Early Consultation for a Proposed Water Treatment Facility, which was received by our staff on January 14, 2005. Our review is based on reports, maps, and aerial photographs maintained at the State Historic Preservation Division; no field inspection was conducted of the subject property.

Based on the submitted document, we understand the proposed undertaking consists of the development of a water treatment facility (WTF) to be located within the property of the Waiale Reservoir in Wailuku. We understand an Environmental Impact Statement will be prepared for the proposed project in accordance with the Hawaii Revised Statutes, Chapter 343 and Chapter 200 of Title 11, Department of Health Administrative Rules, Environmental Impact Statement Rules. We look forward to reviewing this document.

A search of our records indicates an archaeological inventory survey has not been conducted of the subject property. This area in general is likely to have once been the location of pre-contact farming, perhaps with scattered houses. The USDA Soil Survey indicates the subject property is located in the Pu'uone Sand Dune Deposit, which is known to contain both isolated and clustered human burials. Numerous burials have been recovered from the near-by Maui Lani development. Our records indicate a burial site (SIHP 50-50-04-2916, which represents a minimum of two individuals) on a property immediately to the west of this property. Our records also indicate the Waiale Reservoir was constructed over 50 years ago, thus it is considered to be an historic property and must be treated accordingly. Given the above information, we believe it is likely historic sites may be present on the subject property.

Darren Suzuki  
Page 2

Therefore, in order to determine the effect of the proposed undertaking on historic sites, we recommend that no action be taken on the subject permit application until an archaeological inventory survey has been conducted of the subject property to determine whether significant historic sites are present. An acceptable report documenting the findings of the survey will need to be submitted to this office for review. If significant historic sites are identified, a mitigation plan may need to be developed, in consultation with this office, and executed.

If you have any questions, please call Cathleen A. Dagher at 692-8023.

Aloha,

A handwritten signature in black ink, appearing to read "Melanie Chinen". The signature is fluid and cursive, with a large initial "M" and "C".

Melanie Chinen, Administrator  
State Historic Preservation Division

CD:jen

LINDA LINGLE  
GOVERNOR OF HAWAII



FEB 03 2005

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

YVONNE Y. IZU  
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  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

February 1, 2005  
LD-NAV

RESERVOIRWAILUKU.RCM

Munekiyo and Hiraga, Inc.  
Daren Suzuki, Planner  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Suzuki:

Subject: Pre-Assessment Consultation for Preparation of a Draft Environmental  
Assessment for Proposed Water Treatment Facility, Wailuku, Maui, Hawaii

Thank you for the opportunity to review and comment on the subject matter.

The Department of Land and Natural Resources' (DLNR) Land Division distributed a copy of your letter and maps dated January 11, 2005 pertaining to the subject matter to the following DLNR Divisions for their review and comment:

- Division of Forestry and Wildlife
- Engineering Division
- Commission on Water Resource Management
- Office of Conservation and Coastal Lands
- Land-Maui District Land Office
- Land-Planning and Development

Enclosed please find a copy of the Engineering Division comment and Maui District Land Office and State Parks response.

The Department of Land and Natural Resources has no other comment to offer on the subject matter. If you have any questions, please feel free to contact Nicholas A. Vaccaro of the Land Division Support Services Branch at 1-808-587-0384.

Very truly yours,

A handwritten signature in black ink, appearing to read "Warren Wegesend".

WARREN WEGESEND  
Administrator

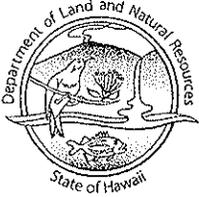
C: MDLO

LINDA LINGLE  
GOVERNOR OF HAWAII



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

YVONNE Y. IZU  
DEPUTY DIRECTOR - WATER



2005 JAN 26 P 3:20

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

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

January 21, 2005  
LD/NAV  
MUNEKIYO&HIRAGA

RESERVOIRWAILUKU.CMT  
Suspense Date: 1/27/05

MEMORANDUM:

TO: XXX Division of Forestry and Wildlife  
✓XXX Engineering Division  
XXX Land-Maui District Land Office  
XXX Land-Planning and Development  
XXX Office of Conservation and Coastal Lands  
XXX Commission on Water Resource Management

FROM: Dierdre S. Mamiya, Administrator *[Signature]*  
Land Division

SUBJECT: Pre-Assessment Consultation for Draft Environmental  
Assessment for Proposed Water Treatment Facility,  
Wailuku, Maui, Hawaii  
Applicant: A&B Wailea, LLC  
Location: Wailuku, Island of Maui, Hawaii  
Consultant: Munekiyo & Hiraga, Inc. (808-244-2015)  
TMK: 2<sup>nd</sup>/ 3-8-046: 020

Please review the attached letter dated January 11, 2005 (general overview of project) and maps pertaining to the subject matter and submit your comment (if any) on Division letterhead signed and dated by the suspense date.

Should you have any questions, please contact Nicholas A. Vaccaro at ext.: 7-0384. If this office does not receive your comments by the suspense date, we will assume there are no comments.

( ) We have no comments.

Comments attached.

Division: Engineering

Signed: *[Signature]*

Date: 1/25/05

Print Name: For ERIC T. HIRANO, CHIEF ENGINEER

05 JAN 21 PM 02:32 ENGINEERING

**DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION**

**REF.: RESERVOIRWAILUKU.CMT  
Maui. 390**

**COMMENTS**

- ( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone, area determined to be outside the 500-year flood plain. The Flood Insurance Program does not have any regulations for development within Zone X.
- (X) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), are located in Zone C. The Flood Insurance Program does not have any regulations for development within Zone C**
- ( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is \_\_\_\_.
- ( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

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

- ( ) Mr. Robert Sumimoto at (808) 523-4254 or Mr. Mario Siu Li at (808) 523-4247 of the City and County of Honolulu, Department of Planning and Permitting.
  - ( ) Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emler at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.
  - ( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
  - ( ) Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.
- 
- ( ) The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.
  - ( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.
  - ( ) Additional Comments: \_\_\_\_\_  
\_\_\_\_\_
  - ( ) Other: \_\_\_\_\_  
\_\_\_\_\_

Should you have any questions, please call Mr. Andrew Monden of the Planning Branch at 587-0229.

Signed: Eric T. Hirano  
ERIC T. HIRANO, CHIEF ENGINEER  
For  
Date: 1/25/05



RECEIVED  
LAND DIVISION

2005 JAN 24 A 10:50

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

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

January 21, 2005  
LD/NAV  
MUNEKIYO&HIRAGA

RESERVOIRWAILUKU.CMT  
Suspense Date: 1/27/05

MEMORANDUM:

TO: XXX Division of Forestry and Wildlife  
XXX Engineering Division  
✓ XXX Land-Maui District Land Office  
XXX Land-Planning and Development  
XXX Office of Conservation and Coastal Lands  
XXX Commission on Water Resource Management

FROM: Dierdre S. Mamiya, Administrator *[Signature]*  
Land Division

SUBJECT: Pre-Assessment Consultation for Draft Environmental  
Assessment for Proposed Water Treatment Facility,  
Wailuku, Maui, Hawaii  
Applicant: A&B Wailea, LLC  
Location: Wailuku, Island of Maui, Hawaii  
Consultant: Munekiyo & Hiraga, Inc. (808-244-2015)  
TMK: 2<sup>nd</sup>/ 3-8-046: 020

Please review the attached letter dated January 11, 2005  
(general overview of project) and maps pertaining to the subject  
matter and submit your comment (if any) on Division letterhead  
signed and dated by the suspense date.

Should you have any questions, please contact Nicholas A.  
Vaccaro at ext.: 7-0384. If this office does not receive your  
comments by the suspense date, we will assume there are no  
comments.

We have no comments.

Comments attached.

Division: Land

Signed: \_\_\_\_\_

Date: 1/21/05

Print Name: \_\_\_\_\_

*Cherlene B. Under*

#1532

LINDA LINGLE  
GOVERNOR OF HAWAII



RECEIVED  
LAND DIVISION

2005 JAN 25 P 3:17

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

DEPARTMENT OF LAND &  
NATURAL RESOURCES  
STATE OF HAWAII

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

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

YVONNE Y. IZU  
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  
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HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS



January 21, 2005  
LD/NAV  
MUNEKIYO&HIRAGA

RESERVOIRWAILUKU.CMT  
Suspense Date: 1/27/05

MEMORANDUM:

TO:  XXX Division of Forestry and Wildlife  
XXX Engineering Division  
XXX Land-Maui District Land Office  
XXX Land-Planning and Development  
XXX Office of Conservation and Coastal Lands  
XXX Commission on Water Resource Management

FROM: Dierdre S. Mamiya, Administrator   
Land Division

SUBJECT: Pre-Assessment Consultation for Draft Environmental  
Assessment for Proposed Water Treatment Facility,  
Wailuku, Maui, Hawaii  
Applicant: A&B Wailea, LLC  
Location: Wailuku, Island of Maui, Hawaii  
Consultant: Munekiyo & Hiraga, Inc. (808-244-2015)  
TMK: 2<sup>nd</sup>/ 3-8-046: 020

Please review the attached letter dated January 11, 2005 (general overview of project) and maps pertaining to the subject matter and submit your comment (if any) on Division letterhead signed and dated by the suspense date.

Should you have any questions, please contact Nicholas A. Vaccaro at ext.: 7-0384. If this office does not receive your comments by the suspense date, we will assume there are no comments.

We have no comments.

Comments attached.

Division: \_\_\_\_\_

Signed:

Date: JAN 24 2005

Print Name: **PAUL J. CONRY, ADMINISTRATOR**  
**DIVISION OF FORESTRY AND WILDLIFE**

LINDA LINGLE  
GOVERNOR OF HAWAII



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



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

YVONNE Y. IZU  
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

February 14, 2005

LD-NAV  
RESERVIORWAILUKUHIRAGE.RCM

Munekiyo and Hiraga, Inc.  
Daren Suzuki, Planner  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Suzuki:

SUBJECT: Pre-Assessment Consultation for Preparation of A Draft Environmental Assessment for the Proposed Water Treatment Facility, Wailuku, Island of Maui, Hawaii

Thank you for the opportunity to review and comment on the subject matter.

The Department of Land and Natural Resources' (DLNR) Land Division distributed a copy of your letter dated January 11, 2005 and maps pertaining to the subject matter to the following DLNR Divisions for their review and comment:

- Division of Forestry and Wildlife
- Engineering Division
- Commission on Water Resource Management
- Office of Conservation and Coastal Lands
- Land-Maui District Land Office
- Land-Planning and Development

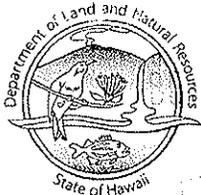
Enclosed please find a copy of the Commission on Water Resource Management's response.

The Department of Land and Natural Resources has no other comment to offer on the subject matter at this time.

If you have any questions, please feel free to contact Nicholas A. Vaccaro of the Land Division Support Services Branch at 1-808-587-0384.

Very truly yours,

WARREN F. WEGESEND JR.  
Administrator



JAN 21 P2:44

2005-1-21 10:15

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

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

January 21, 2005  
LD/NAV  
MUNEKIYO&HIRAGA

RESERVOIRWAILUKU.CMT  
Suspense Date: 1/27/05

MEMORANDUM:

TO: XXX Division of Forestry and Wildlife  
XXX Engineering Division  
XXX Land-Maui District Land Office  
XXX Land-Planning and Development  
FR: XXX Office of Conservation and Coastal Lands  
XXX Commission on Water Resource Management

TO: FROM: Dierdre S. Mamiya, Administrator  
Land Division

SUBJECT: Pre-Assessment Consultation for Draft Environmental  
Assessment for Proposed Water Treatment Facility,  
Wailuku, Maui, Hawaii  
Applicant: A&B Wailea, LLC  
Location: Wailuku, Island of Maui, Hawaii  
Consultant: Munekiyo & Hiraga, Inc. (808-244-2015)  
TMK: 2<sup>nd</sup>/ 3-8-046: 020

Please review the attached letter dated January 11, 2005  
(general overview of project) and maps pertaining to the subject  
matter and submit your comment (if any) on Division letterhead  
signed and dated by the suspense date.

Should you have any questions, please contact Nicholas A.  
Vaccaro at ext.: 7-0384. If this office does not receive your  
comments by the suspense date, we will assume there are no  
comments.

( ) We have no comments.

(✓) Comments attached.

Division: \_\_\_\_\_

Signed:

Date: \_\_\_\_\_

Print Name: YVONNE Y. IZU

(Letter dated 2/7/05 mailed to D. Suzuki @  
Munekiyo & Hiraga, Inc.)



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

February 7, 2005

Mr. Daren Suzuki, Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, HI 96793

Dear Mr. Suzuki:

Waiale Water Treatment Facility Draft EA

Thank you for the opportunity to review the subject document. Our comments related to water resources are marked below.

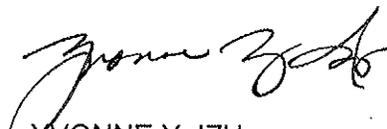
In general, the CWRM strongly promotes the efficient use of our water resources through conservation measures and use of alternative non-potable water resources whenever available, feasible, and there are no harmful effects to the ecosystem. Also, the CWRM encourages the protection of water recharge areas, which are important for the maintenance of streams and the replenishment of aquifers.

- [ x ] We recommend coordination with the county government to incorporate this project into the county's Water Use and Development Plan.
- [ ] 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.
- [ x ] We are concerned about 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.
- [ ] A Well Construction Permit and/or a Pump Installation Permit from the Commission would be required before ground water is developed as a source of supply for the project.
- [ ] The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit from the Commission would be required prior to use of this source.
- [ ] Groundwater withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.

- [ ] We are concerned about the potential for degradation of instream uses from development on highly erodible slopes adjacent to streams within or near the project. We recommend that approvals for this project be conditioned upon a review by the corresponding county's Building Department and the developer's acceptance of any resulting requirements related to erosion control.
- [ x ] If the proposed project includes construction of a stream diversion, the project may require a stream diversion works permit and amend the instream flow standard for the affected stream(s).
- [ ] If the proposed project alters the bed and banks of a stream channel, the project may require a stream channel alteration permit.
- [ x ] OTHER: We have no objections to the proposed use of treated surface water as a source for domestic water supply. However, the source of this water is Waihee Stream, and diversions therefrom are subject to a pending petition to restore stream flow. In addition, the irrigation ditch system is also subject to a separate petition to cease alleged waste of the resource. Accordingly, the Applicant and the County of Maui, Department of Water Supply, should be advised that long-term reliance upon water from Waihee Stream as a source for the surface water treatment facility shall be subject to the resolution of these pending petitions and the determination of Instream Flow Standards.

If there are any questions, please contact Charley Ice at (808) 587-0251 or toll-free at 984-2400, extension 70251.

Sincerely,



YVONNE Y. IZU  
Deputy Director

April 4, 2005

Warren Wegesend Jr., Administrator  
State of Hawaii  
**Department of Land and Natural Resources**  
Land Division  
Post Office Box 621  
Honolulu, Hawaii 96809

SUBJECT: Proposed Waiale Reservoir Water Treatment Facility, Wailuku, Maui,  
TMK (2) 3-8-046:020

Dear Mr. Wegesend:

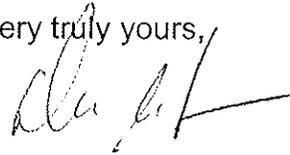
Thank you for your letters of February 1 and February 14, 2005, responding to our request for early consultation comments for the proposed water treatment facility at TMK (2) 3-8-046:020, Wailuku, Maui. In response to your comments, we note the following:

1. We acknowledge your confirmation that the subject property is located on lands designated as Flood Zone "C" and are without developmental regulations.
2. Coordination has been undertaken with the County of Maui, as the proposed facility will be dedicated to the County upon its completion.
3. Coordination will be undertaken with the Department of Health's Safe Drinking Water Branch for appropriate review and approval of the proposed project.
4. There are no plans for any stream diversions in the project at present. Should such elements be included, the proper permitting will be obtained for the proposed action.
5. We acknowledge your comments regarding the pending legal actions concerned with the Waihee Stream and the irrigation ditch system and the impacts that such could have on the proposed project.

Warren Wegesend Jr., Administrator  
April 4, 2005  
Page 2

Thank you again for providing your input to the proposed action. A copy of the Draft Environmental Assessment will be provided to your office for review and comment.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Daren Suzuki', with a long horizontal flourish extending to the right.

Daren Suzuki, Planner

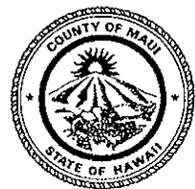
DS:yp

cc: Ivan Nakatsuka, Austin, Tsutsumi & Associates, Inc.

Atalwaialewlf ealdlnr.res

JAN 26 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 Nako'a Street, Unit 2, Wailuku, Hawaii 96793

January 18, 2005

Mr. Daren Suzuki, Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Suzuki:

SUBJECT: Pre-Consultation for a Proposed Water Treatment Facility  
TMK 3-8-046:020, Wailuku, Maui

Thank you for the opportunity to review and comment on the proposed development of a water treatment facility within the property of the Waiale Reservoir in Wailuku, Maui, Hawaii.

We have reviewed the proposed project and have no comments to offer. Please contact me or Mr. Patrick Matsui, Chief of Parks Planning and Development at 270-7387, should you have any questions.

Sincerely,

Glenn T. Correa  
DIRECTOR

c: Patrick Matsui, Chief of Planning and Development

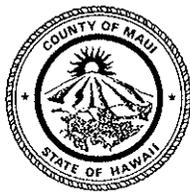
FEB 08 2005

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  
WAILUKU, MAUI, HAWAII 96793

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

TRACY TAKAMINE, P.E.  
Wastewater Reclamation Division

CARY YAMASHITA, P.E.  
Engineering Division

BRIAN HASHIRO, P.E.  
Highways Division

Solid Waste Division

February 1, 2005

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

Dear Mr. Hirano:

**SUBJECT: PRE-CONSULTATION - PROPOSED WATER  
TREATMENT FACILITY WITHIN WAIALE RESERVOIR  
PROPERTY IN WAILUKU  
TMK: (2) 3-8-046:020**

We reviewed the subject application and have the following comments:

1. Address sludge disposal and construction waste disposal/recycling.
2. The access to the site has not been determined. There are several proposals, but nothing concrete. We may have concerns depending upon the selected access. For example, Alternative 3 may have significant impact to traffic congestion at the intersection of Waiinu Road and Waiale Drive.
3. Although wastewater system capacity is currently available as of January 31, 2005, the developer should be informed that wastewater system capacity cannot be ensured until the issuance of the building permit.
4. Wastewater contribution calculations are required before building permit is issued.
5. Developer shall pay assessment fees for treatment plant expansion costs in accordance with ordinance setting forth such fees.

Mr. Mich Hirano, A.I.C.P.  
February 1, 2005  
Page 2

6. Developer is required to fund any necessary off-site improvements to collection system and wastewater pump stations.
7. The project construction plans shall be reviewed and approved by our office before the building permit is issued.
8. Plans should show the installation of a service manhole near the property line prior to connection to the County sewer.
9. Non-contact cooling water, condensate, etc. should not drain to the wastewater system.
10. Indicate on the plans the ownership of each easement (in favor of which party). Note: County will not accept sewer easements that traverse private property.

If you have any questions regarding this letter, please call Michael Miyamoto at (808) 270-7845.

Sincerely,



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

MMA:MMM:da  
S:\LUCA\CZM\Prop\_Water\_Trmt\_Fac\_Pre-Con\_38046020\_da.wpd

April 4, 2005

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

SUBJECT: Proposed Waiale Reservoir Water Treatment Facility, Wailuku, Maui,  
TMK (2) 3-8-046:020; File Number POH-2005-33

Dear Mr. Arakawa:

Thank you for your letter of February 1, 2005, responding to our request for early consultation comments for the proposed water treatment facility at TMK (2) 3-8-046:020, Wailuku, Maui. In response to your comments, we note the following:

1. Production of waste disposal will be addressed in the Draft Environmental Assessment (EA). Construction waste management plans will be submitted to your Department during the construction permitting phase of the proposed process.
2. The access to the site and impacts on traffic will be further addressed in the Draft EA.
3. We acknowledge that wastewater capacity cannot be ensured until the issuance of the construction permits.
4. Wastewater calculation will be provided in the Draft EA.
5. We acknowledge that the applicant may be required to pay treatment plant expansion fees.
6. We acknowledge that the applicant may be required to fund necessary offsite improvements to wastewater systems.
7. We acknowledge that the project plans will be reviewed and approved prior to the issuance of construction permits.

Milton Arakawa, Director  
April 4, 2005  
Page 2

8. The plans will show the installation of a service manhole.
9. Non-contact cooling water and condensate will not drain into the wastewater system.
10. The plans submitted for construction permits will indicate the ownership of each easement.

Thank you again for providing your input to the proposed action. A copy of the Draft EA will be provided to your office for review and comment.

Very truly yours,



Daren Suzuki, Planner

DS:yp

cc: Ivan Nakatsuka, Austin, Tsutsumi & Associates, Inc.

Atalwaialewlf ealdpwem.res

JUL 24 2007

CHARMAINE TAVARES  
Mayor



JEFFREY K. ENG  
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

July 20, 2007

Ms. Karlynn Kawahara  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Ms. Kawahara:

Subject: DRAFT ENVIRONMENTAL ASSESSMENT FOR  
WAIALE WATER TREATMENT FACILITY

Thank you for the opportunity to review the Draft Environmental Assessment. Attached are two copies of the (DRAFT) report with staff comments. We offer the following:

**Proposed Action:**

The EA should clarify the area or acreage of land removed from agricultural production resulting from the removal of 10 MGD of irrigation water. A reduction in irrigation may also affect aquifer recharge, and should be considered in the Water Use and Development Plan. The term "undeveloped" to describe the site of the proposed development should be further defined.

We share the Department of Health's concern of treating water from the Waiale Reservoir. The water quality from the Spreckels Ditch flowing through a developed urban area is subject to potential contamination of the reservoir.

**Alternatives to the Proposed Action:**

In light of ongoing efforts and the petition to restore stream flow to the Na Wai Eha streams, in-stream uses should be identified as alternative uses of the source water.

*"By Water All Things Find Life"*

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Draft Environmental Assessment  
Waiale Water Treatment Facility  
July 20, 2007  
Page 2 of 2

Discussion of Water Rights and Future Uses:

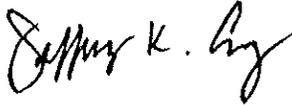
A discussion on source reliability and provisions for future expansion should be addressed. Impacts of anticipated stream flow standards of Waihee Stream, and allegations of waste from current diversions should be mentioned.

Sludge Lagoon:

The quantity and method of off-site sludge disposal should be discussed.

Please contact our Water Resources and Planning Division at 244-8550 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey K. Eng". The signature is written in a cursive, flowing style.

JEFFREY K. ENG  
Director

Attachment



MICHAEL T. MUNEKIYO  
GWEN ORASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN KAWAHARA

MARK ALEXANDER ROY

September 13, 2007

Mr. Jeffrey K. Eng, Director  
**Department of Water Supply**  
200 South High Street  
Wailuku, Hawai'i 96793

SUBJECT: (Draft) Draft Environmental Assessment for the Proposed Waiale Water Treatment Facility

Dear Mr. Eng:

We are in receipt of your comment letter dated July 20, 2007, with regards to the (draft) Draft Environmental Assessment (Draft EA) we prepared for the subject project. On behalf of our client, A&B Properties, Inc. (Applicant), we would like to offer the following responses to your comments.

1. At this point in time, HC&S will continue its agricultural operations at its current level and does not plan to decrease the cultivation of lands. In order to maintain the level of existing agricultural cultivation, assuming no other significant changes, HC&S will employ farming methodologies related to the timing of planting and irrigation. Additionally, HC&S plans to supplement a portion of the agricultural water with brackish water from an existing well. The description of the existing lands at the proposed project site will be expanded in the Draft EA.
2. We note the Department's comments on the treatment of water from Waiale Reservoir and Spreckels Ditch. However, we would like to clarify that the proposed Waiale Water Treatment Facility (WTF) will not treat water from the Waiale Reservoir or the Spreckels Ditch. The WTF will be designed to take water directly from the Waihee Ditch via a direct intake from the Hopoi Chute.
3. We note the Department's comment regarding the in-stream use of water as an alternative use for the source of water (Waihee Ditch). It is possible that the water currently collected by the West Maui ditch system could be ordered to be alternatively used in-stream, pursuant to ongoing regulatory procedures, however, we understand that the yield of the West Maui system greatly exceeds the 10 million gallon per day (MGD) contemplated to be used by the Waiale WTF. Further, we note that domestic use of water has been recognized as a public trust use of water

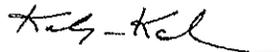
and, therefore, we believe that the WTF project will be supported. This discussion will be added to the Draft EA.

4. Regarding the Department's comment on source reliability and provisions for future expansion of the WTP, the historic flow figures for the Waihee Ditch show that the average daily yield, over the last 30 years, is well over 10 MGD. As such, the Applicant believes that the Waihee Ditch has sufficient capacity to provide water resource for the proposed WTF. Please see attached Exhibit "A". These figures further support the available capacity for the future expansion of the plant with one (1) additional filter unit.
5. Regarding the comment on the quantity of sludge and off-site sludge disposal, a further description will be provided in the Draft EA. The project's civil engineering consultant noted that the general method of disposal would be to shut down one (1) of the sludge lagoon cells for gravity settlement of the solids. When the sludge dries, via percolation and evaporation, it would be loaded into trucks and hauled to the County of Maui landfill. The estimated quantity of dried solids is approximately 15,000 gallons or 2,000 cubic feet per cell per cleaning. The frequency of cleaning is expected to vary, depending on the quality and quantity of the raw water.

We will be revising the Draft EA to incorporate the Department's comments and will resubmit the revised pages to you for review. If the pages are acceptable, then we will finalize the Draft EA and process it with the Office of Environmental Quality Control.

Should you have any questions, please do not hesitate to call me at 244-2015.

Very truly yours,



Karlynn Kawahara  
Project Manager

KK:yp

Enclosure

cc: Meredith Ching, A&B Hawai'i (w/enclosure)  
Diane Bevilacqua, A&B Properties, Inc. (w/enclosure)  
Clyde Murashige, A&B Wailea LLC (w/enclosure)  
Ivan Nakatsuka, Austin Tsutsumi & Associates, Inc. (w/enclosure)

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WAIHEE DITCH DELIVERY IN MILLION GALLONS

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1994	737.72	659.32	645.53	994.64	719.23	825.71	994.31	950.84	901.50	708.68	833.17	711.42	9682.07
1995	628.65	454.48	419.98	791.48	717.37	463.01	767.67	905.20	587.49	749.61	674.13	525.29	7684.36
1996	633.94	750.00	590.77	901.63	703.75	608.48	634.86	679.10	579.31	372.46	602.37	486.24	7542.91
1997	363.92	612.93	552.92	605.04	820.81	876.24	1121.49	985.60	894.92	668.25	822.21	496.52	8820.85
1998	614.91	598.33	639.77	1063.75	1078.35	1147.16	1026.17	869.02	914.38	1145.96	955.67	711.10	10764.57
1999	654.82	620.40	717.00	674.90	546.22	468.98	642.35	671.28	485.61	497.98	508.80	718.07	7206.41
2000	395.46	542.37	499.62	762.59	437.44	451.28	565.33	688.79	847.40	830.01	504.52	442.65	6967.46
2001	343.10	426.47	489.85	579.98	759.80	669.52	492.61	867.25	624.42	751.22	820.43	839.22	7663.87
2002	841.58	859.96	926.23	643.01	923.33	741.89	884.03	794.40	638.68	541.96	449.60	534.62	8779.29
2003	430.15	312.43	421.54	496.07	385.54	272.15	496.09	443.30	378.40	383.79	507.72	772.36	5299.54
TOTAL	5644.25	5836.69	5903.21	7513.09	7091.84	6524.42	7624.91	7854.78	6852.11	6649.92	6678.62	6237.49	80411.33
AVG (mo)	564.43	583.67	590.32	751.31	709.18	652.44	762.49	785.48	685.21	664.99	667.86	7417.38	14834.77 mgy
AVG(day)	18.21	20.85	19.04	25.04	22.88	21.75	24.60	25.34	22.84	21.45	22.26	239.27	40.64 mgd

Note: Gaging station is at Waihee Ditch @ Field 63 (Hopoi)  
 Total water delivery goes to HC&S

FEB 01 2005



January 31, 2005

Mr. Daren Suzuki, Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Suzuki,

Subject: Pre-Consultation for a Proposed Water Treatment Facility –  
Waiale Reservoir in Wailuku, Maui, Hawaii  
TMK: (2) 3-8-046:020

Thank you for allowing us to comment on the general overview documents for the subject project, which was received on January 24, 2005.

In reviewing our records and the information received, Maui Electric Company (MECO) will be requiring access and electrical easements for our facilities to serve the subject project site. We encourage the customer's electrical consultant to meet with us as soon as practical to verify the project's electrical demand requirements and indicate the desired service location so that service can be provided on a timely basis.

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

Sincerely,

A handwritten signature in black ink that reads "Neal Shinyama". The signature is written in a cursive, flowing style.

Neal Shinyama  
Manager, Engineering

NS/ro:lh



MICHAEL T. MUNEKIYO  
SWEN DHASHI HIRAGA  
MITSURU "MICH" HIRANO

April 4, 2005

Neal Shinyama, Manager, Engineering  
**Maui Electric Company, Ltd.**  
P. O. Box 398  
Kahului, Hawaii 96733

SUBJECT: Proposed Waiale Reservoir Water Treatment Facility, Wailuku, Maui,  
TMK (2) 3-8-046:020

Dear Mr. Shinyama:

Thank you for your letter of January 31, 2005, responding to our request for early consultation comments for the proposed water treatment facility at TMK (2) 3-8-046:020, Wailuku, Maui. We acknowledge that the Maui Electric Company will require easements to serve the new facility and the applicant's electrical consultant will coordinate with your office on this matter, as soon as it is practicable.

Thank you again for providing your input to the proposed action. A copy of the Draft Environmental Assessment will be provided to your office for review and comment.

Very truly yours,

Daren Suzuki, Planner

DS:yp

cc: Ivan Nakatsuka, Austin, Tsutsumi & Associates, Inc.

Ata/waialewlf ealmeco.res

**X. AGENCIES AND  
ORGANIZATIONS TO  
RECEIVE A COPY OF THE  
EISPN**

## X. AGENCIES AND ORGANIZATIONS TO RECEIVE A COPY OF THE EISPN

The following agencies and organizations will receive a copy of the EISPN. Comments received and responses to substantive comments will be included in the Draft EIS.

1. Ranae Ganske-Cerizo, Acting  
District Conservationist  
**Natural Resources Conservation Service**  
**U.S. Department of Agriculture**  
210 Imi Kala Street, Suite 209  
Wailuku, Hawai'i 96793-2100
2. George Young  
Chief, Regulatory Branch  
**U.S. Department of the Army**  
U.S. Army Engineer District, Honolulu  
Building 230  
Fort Shafter, Hawai'i 96858-5440
3. Robert P. Smith  
Pacific Islands Manager  
**U. S. Fish and Wildlife Service**  
300 Ala Moana Blvd., Rm. 3-122,  
Box 50088  
Honolulu, Hawai'i 96813
4. Theodore E. Liu, Director  
State of Hawai'i  
**Department of Business, Economic  
Development & Tourism**  
P.O. Box 2359  
Honolulu, Hawai'i 96804
5. Patricia Hamamoto, Superintendent  
State of Hawai'i  
**Department of Education**  
P. O. Box 2360  
Honolulu, Hawai'i 96804
6. Heidi Meeker  
Planning Division  
Office of Business Services  
**Department of Education**  
c/o Kalani High School  
4680 Kalaniana'ole Highway, #T-B1A  
Honolulu, Hawai'i 96821
- cc: Bruce Anderson, Complex Area  
Superintendent (Central/Upcountry Maui)
7. Micah Kane, Chairman  
**Department of Hawaiian Home Lands**  
P. O. Box 1879  
Honolulu, Hawai'i 96805
8. Chiyome L. Fukino, M.D., Director  
State of Hawai'i  
**Department of Health**  
P. O. Box 3378  
Honolulu, Hawai'i 96814
9. Alec Wong, P.E., Acting Chief  
**Clean Water Branch**  
State of Hawai'i  
**Department of Health**  
919 Ala Moana Blvd., Room 300  
Honolulu, Hawai'i 96814
10. Herbert Matsubayashi  
District Environmental Health  
Program Chief  
State of Hawai'i  
**Department of Health**  
54 High Street  
Wailuku, Hawai'i 96793
11. Laura Thielen, Chairperson  
State of Hawai'i  
**Department of Land and Natural  
Resources**  
P. O. Box 621  
Honolulu, Hawai'i 96809

12. Dr. Puaalaokalani Aiu, Administrator  
State of Hawai'i  
**Department of Land and Natural Resources**  
**State Historic Preservation Division**  
601 Kamokila Blvd., Room 555  
Kapolei, Hawai'i 96707
13. Brennon Morioka, Director  
State of Hawai'i  
**Department of Transportation**  
869 Punchbowl Street  
Honolulu, Hawai'i 96813
- cc: Ferdinand Cajigal, Maui District Engineer
14. Katherine Kealoha, Director  
**Office Of Environmental Quality Control**  
235 S. Beretania Street, Suite 702  
Honolulu, Hawai'i 96813
15. Clyde Namu'o, Administrator  
**Office of Hawaiian Affairs**  
711 Kapiolani Boulevard, Suite 500  
Honolulu, Hawai'i 96813
16. Jeffrey A. Murray, Fire Chief  
County of Maui  
**Department of Fire and Public Safety**  
200 Dairy Road  
Kahului, Hawai'i 96732
17. Jeffrey S. Hunt, Director  
County of Maui  
**Department of Planning**  
250 South High Street  
Wailuku, Hawai'i 96793
18. Tamara Horcajo, Director  
County of Maui  
**Department of Parks and Recreation**  
700 Hali'a Nakoia Street, Unit 2  
Wailuku, Hawai'i 96793
19. Milton Arakawa, Director  
County of Maui  
**Department of Public Works**  
200 South High Street  
Wailuku, Hawai'i 96793
20. Cheryl Okuma, Director  
County of Maui  
**Department of Environmental Management**  
One Main Plaza  
2200 Main Street, Suite 175  
Wailuku, Hawai'i 96793
21. Thomas Phillips, Chief  
County of Maui  
**Police Department**  
55 Mahalani Street  
Wailuku, Hawai'i 96793
22. Jeffrey Eng, Director  
County of Maui  
**Department of Water Supply**  
200 South High Street  
Wailuku, Hawai'i 96793
23. Don Medeiros, Director  
County of Maui  
**Department of Transportation**  
200 South High Street  
Wailuku, Hawai'i 96793
24. Jimmy Lawrence  
**Kahului Town Association**  
117 West Papa Avenue  
Kahului, Hawai'i 96732
25. **Hawaiian Telcom**  
60 South Church Street  
Wailuku, Hawai'i 96793
26. Greg Kauhi, Manager, Customer Operations  
**Maui Electric Company, Ltd.**  
P. O. Box 398  
Kahului, Hawai'i 96733
27. **Maui Lani Community Association**  
c/o Barbara Kojima, Property Manager  
P. O. Box 1642  
Kahului, Hawai'i 96733
28. **Maui Tomorrow**  
P. O. Box 299  
Makawao, Hawai'i 96768
29. **Earthjustice**  
223 S. King Street, Suite 400  
Honolulu, Hawai'i 96813

## **XI. REFERENCES**

## XI. REFERENCES

Chinen, Jon, The Great Mahele: Hawaii's Land Division of 1848, Honolulu: University of Hawai'i Press, 1958.

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

County of Maui, Wailuku-Kahului Community Plan, December 1987.

County of Maui, Department of Planning, Socio-Economic Forecast, The Economic Projections for the Maui County General Plan 2030, June 2006.

County of Maui, Office of Economic Development, Maui County Data Book, 2003.

Department of Business, Economic Development and Tourism, The State of Hawai'i Data Book 2002.

Federal Emergency Management Agency, Flood Insurance Rate Map Community Panel Number 150003 0190 D, 1995.

Freedman, Carl, Haiku Design & Analysis, Draft Maui County Water Use and Development Plan, Water Use and Demand, Department of Water Supply Systems, prepared for the County of Maui, Department of Water Supply, May 1, 2007.

Freedman, Carl, Haiku Design & Analysis, Draft Maui County Water Use and Development Plan, Candidate Strategies, prepared for the County of Maui, Department of Water Supply, September 12, 2006.

Munekiyo & Arakawa, Inc., Application for Special Management Area Permit - Maui Central Park, August 1996.

Munekiyo & Arakawa, Inc., Final Environmental Assessment - Waiale Road Affordable Rental Project, September 1995.

Munekiyo & Arakawa, Inc., Final Environmental Assessment - War Memorial Stadium Renovations, Wailuku, Hawai'i, August 1997.

Ronald M. Fukumoto Engineering, Inc., Kahului Drainage Master Plan, May 1992.

Telephone conversation with Scott Rollins, Wastewater Reclamation Division, August 2004.

University of Hawai'i, Land Study Bureau, Detailed Land Classification Island of Maui, May 1967.

University of Hawai'i, Department of Geography, Atlas of Hawai'i, Second Edition, 1983.

U.S. Department of Agriculture, Soil Conservation Service, Soil Survey of Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawai'i, August 1972.v