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Mayor



GEORGE Y. TENGAN  
Director

JEFFREY T. PEARSON, P.E.  
Deputy Director

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DEPARTMENT OF WATER SUPPLY

COUNTY OF MAUI

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WAILUKU, MAUI, HAWAII 96793-2155  
www.mauewater.org

OFFICE OF ENVIRONMENTAL  
QUALITY CONTROL

June 28, 2004

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

Dear Ms. Salmonson:

Subject: <sup>Final</sup> ~~Draft~~ Environmental Assessment for the Iao Water Treatment Facility - Upgrade  
TMK: (2) 3-5-01:001 & 021, Wailuku, Maui, Hawaii

Finding of No Significant Impact (FONSI) for Iao Water Treatment Facility - Upgrades, TMK:  
3-5-01:021 & 001, Wailuku, Maui, Hawaii.

The Maui Department of Water Supply has reviewed the comments received during the 30-day public comment period which began on March 23, 2004. The agency has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the July 8, 2004 OEQC Environmental Notice.

We have enclosed a completed OEQC Publication Form and four (4) copies of the Final Ea.

Please call Wendy Taomoto of our Engineering Division at (808)270-7835 if you have any questions.

Sincerely,

  
George Y. Tengan  
Director

cc: M&E Pacific, Inc.

"By Water All Things Find Life"



**2004-07-08 FONSI  
IAO WATER TREATMENT  
FACILITY UPGRADE**

JUL 8 2004

**FILE COPY**

**FINAL ENVIRONMENTAL ASSESSMENT**

FOR

**IAO WATER TREATMENT FACILITY  
UPGRADE**

WAILUKU, MAUI, HAWAII

Prepared for:  
County of Maui  
Department of Water Supply

Prepared by:

**M&E**  
Pacific, Inc.

841 Bishop Street,  
Suite 1900, Davies Pacific Center  
Honolulu, HI 96813

June 2004

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**SECTION 1**  
**PROJECT SUMMARY**

**Project Name:** Iao Water Treatment Facility Upgrade

**Applicant/ Approving Agency:** Maui County Department of Water Supply  
200 South High Street – Fifth Floor  
Wailuku, County of Maui, Hawaii 96793  
Contact: Ms Wendy Taomoto, Project Engineer  
Phone: (808) 270-7835 Fax: (808) 270-7833

**Applicant Agent:** M&E Pacific, Inc.  
841 Bishop Street, Suite 1900  
Davies Pacific Center  
Honolulu, HI 96813  
Contact: Mr. Bruce Wade, P.E.  
Phone: (808) 521-3051 Fax: (808) 524-0246

**Location:** Between Wailuku Town and Wailuku Heights on the south side of West Alu Road

**TMK Designation:** 2<sup>nd</sup> Tax Division 3-5-01: parcels 021 and 001

**Property Owner (parcel 021):** County of Maui  
**Property Owner (parcel 001):** Kehalani Mauka LLC

**State Land Use Classification:** Parcel 021: Agricultural  
Parcel 001: Urban

**County Zoning:** Parcel 021: Agricultural  
Parcel 001: Project District 3

**Wailuku-Kahului Community Plan:** Parcel 021: Agricultural  
Parcel 001: Project District 3

**Proposed Action:** This project proposes to upgrade the existing Iao Water treatment facility from its current operational capacity of 1.2 MGD to 2.4 MGD by modifications to the intake structure in the existing Iao Waikapu Ditch, replacement of 6" waterlines and the addition of one new membrane filtration unit.

**Determination:** Finding of No Significant Impact (FONSI)

**SECTION 2**  
**CONSULTATION LIST**

**2.1 FEDERAL**

U.S. Fish and Wildlife Service

**2.2 STATE**

Department of Business, Economic Development and Tourism, Land Use  
Commission

Department of Health, Environmental Management, Clean Water Branch

Department of Health, Environmental Management, Safe Drinking Water Branch

Department of Health, Environmental Planning Office

Department of Land and Natural Resources, Commission on Water Resource  
Management

Department of Land and Natural Resources, Division of Aquatic Resources

Department of Land and Natural Resources, Forestry and Wildlife Division

Department of Land and Natural Resources, Historic Preservation Division

University of Hawaii, Hawaii Natural Heritage Program

Department of Water Supply, Maui County

Office of Hawaiian Affairs, (Oahu)

**2.3 COUNTY OF MAUI**

Department of Planning

Department of Public Works and Environmental Management

Office of Hawaiian Affairs, (Maui)

## SECTION 3

### PROJECT DESCRIPTION

#### 3.1 PROJECT NEED AND OBJECTIVE

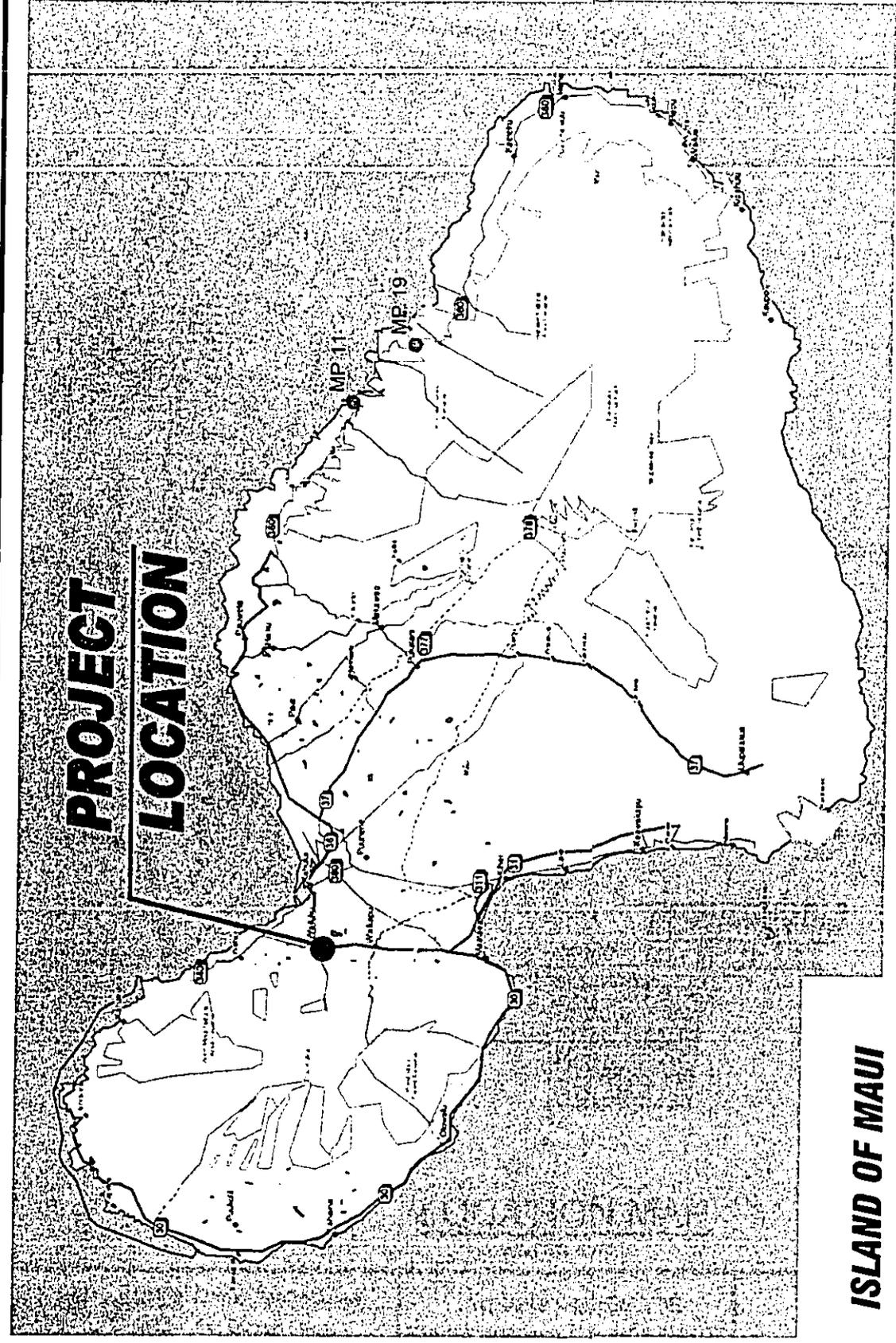
The Central Maui Water System is the Maui Department of Water Supply's (DWS) largest drinking water system. It services the major population centers of Maui which are currently experiencing rapid growth and increased water demand. The system provides water to the following communities; Wailuku, Waihee, Waikapu, Wailuku Heights, Kahului, Puunene, Kihei, Maalaea, Makena, Paia-Kuau and Spreckelsville. As of June 30, 2003, there are 17,070 water meters servicing Central Maui Customers. The current capacity of the Central Maui Water System is incapable of delivering the increasing demand of water.

The objective of this project is to provide a fast, temporary solution to the Central Maui water shortages while providing quality drinking water to its customers. These upgrades will allow the Maui DWS to readily meet existing demand. The proposed project establishes a rapid solution to these projected water usage demands and does not require additional pumping of water from Iao Aquifer System, additional withdrawals of water from the Iao Stream or require the acquisition of any additional lands. This Environmental Assessment (EA) discusses possible environmental impacts to the existing site, and planned mitigative strategies at the Iao Water Treatment Facility (WTF).

See Figures 1, Vicinity Map and 2, Location Map for project location.

#### 3.2 PROJECT OVERVIEW AND DESCRIPTION

The proposed upgrades to the existing Iao WTF utilize the existing infrastructure of the facility, See Figure 3, Site Photographs 1. The Maui DWS plans to increase the existing operating capacity of the facility from 1.2 million gallons per day (MGD) to a proposed operating capacity of 2.4 MGD and a future operating capacity of 3.2 MGD. This will be accomplished by minor modifications to the intake structure at the Iao Waikapu Ditch to allow more water into the treatment system, see Figure 5, Site Photographs 2 (Photo 5). To accommodate the additional flow from the modified intake structure approximately 2000' of 6" lines (5 parallel lines) will be replaced with one (1) new 24" line, see Figure 5, Site Photographs 2 (Photo 6). One (1) new pre-fabricated microfiltration module will be added to the treatment facility at this time. This unit will allow the Iao WTF to reach an operating capacity of 2.4 MGD. This new unit will require only the placement of a concrete slab (approximately 15'x18') to support it. All work for the addition of this unit will take place inside the housing of the existing treatment facility and will require no additional site work. The agreement with Wailuku Agribusiness (see Appendix D) will allow Maui DWS to withdraw a maximum of 3.2 MGD. Maui DWS plans the future installation of fourth CMF unit to process the total flow.



**PROJECT  
LOCATION**

**ISLAND OF MAUI**

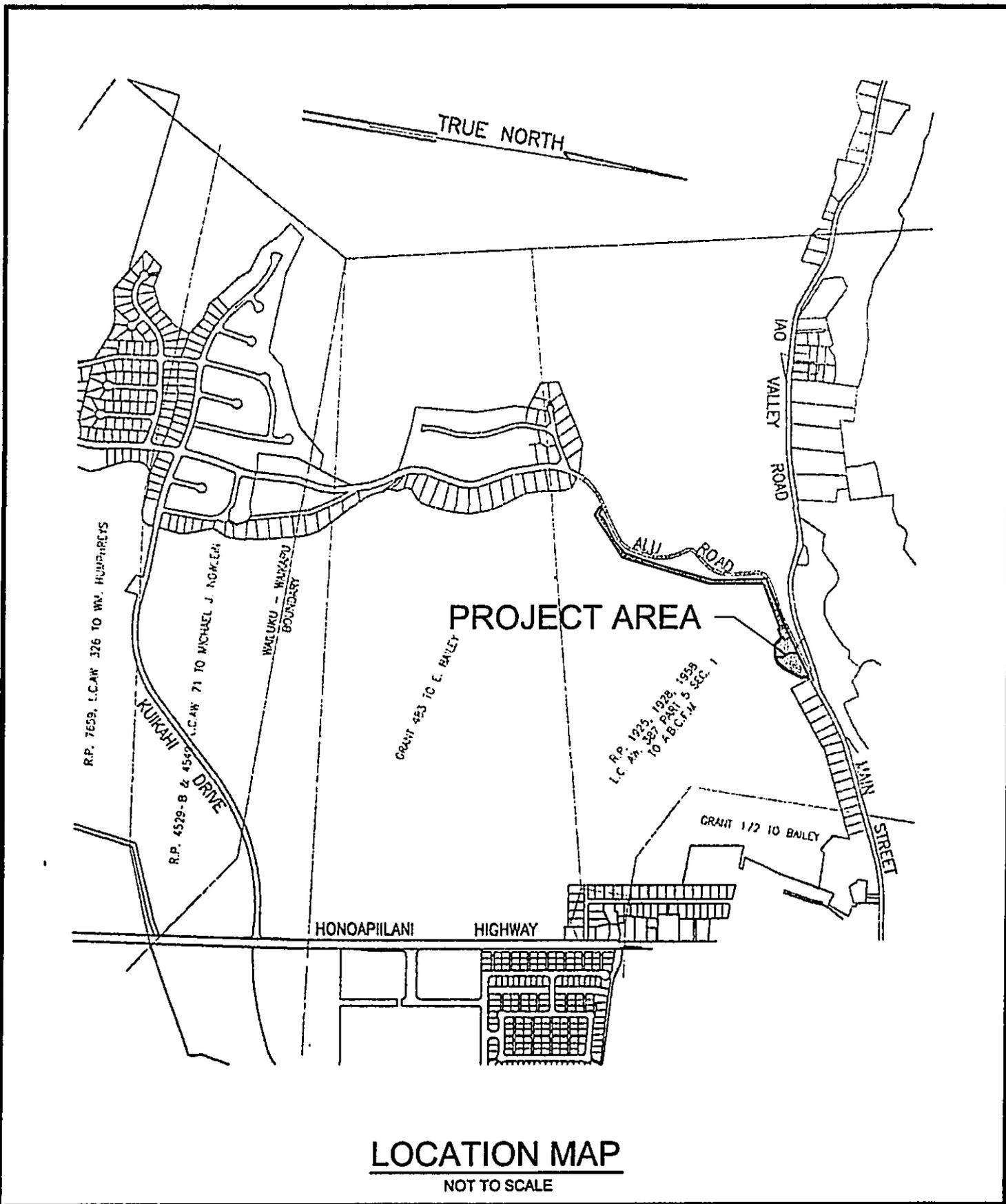
**VICINITY MAP  
NOT TO SCALE**



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FIGURE 1  
PROJECT LOCATION  
June 2004



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ENVIRONMENTAL ASSESSMENT**  
MAUI - DEPARTMENT OF WATER SUPPLY

**FIGURE 2  
LOCATION MAP  
June 2004**

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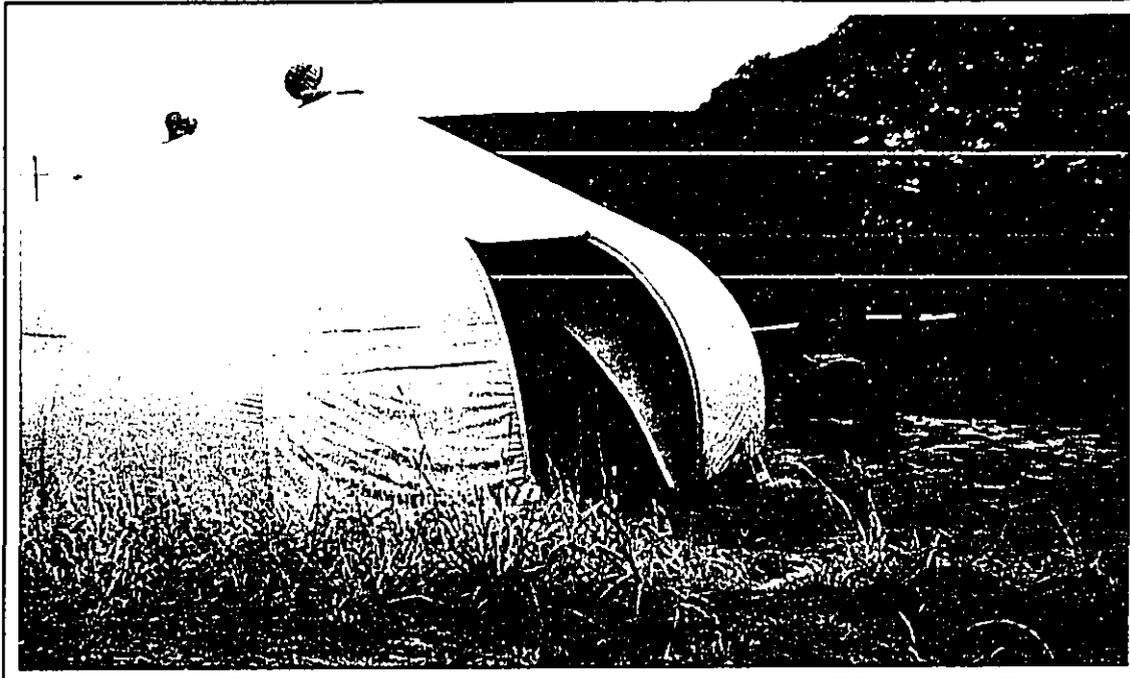


Photo 1: Existing Iao Water Treatment Facility



Photo 2: Junction Box



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FIGURE 3  
SITE PHOTOGRAPHS 1  
June 2004

### **3.3 PROJECT COST AND DURATION**

Projected costs for the project are estimated to be \$650,000. Costs for the project will be provided from County of Maui, DWS funds. The design of the project is currently underway and it is expected that the new microfiltration unit will be in operation by the end of September 2004.

### **3.4 PURPOSE OF ENVIRONMENTAL ASSESSMENT**

This EA results from the use of County land and Funds. In accordance with Chapter 343, Hawaii Revised Statutes and the Department of Health's Hawaii Administrative Rules Title 11-200 this EA provides a written evaluation of technical, environmental, social and economic aspects of the proposed Iao Water Treatment Facility Upgrades. It identifies potential project impacts and their significance and develops strategies to mitigate those impacts. This EA then compares all aspects and impacts against 13 significance criteria listed in §11-200-12 to provide a determination as to whether an Environmental Impact Statement is required or not.

## SECTION 4

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

#### 4.1 TECHNICAL

The Maui DWS operates drinking water wells and surface water treatment facilities, island wide. The Central Maui Water System receives most of its potable water from the Iao Aquifer. The most recent sustainable yield of that aquifer is estimated to be 20 MGD, see figure 4, Sustainable Yield by Aquifer. According to the Maui DWS Source Records, the Iao Aquifer has produced an average of approximately 18 MGD (February 2003 to January 2004). Average monthly withdrawals ranged from 13.0 MGD to 20.3 MGD. Growth and redevelopment in the area have caused an increase in demand for potable water. The average annual increase in water services is approximately 2.5% over the last five years. In order to provide this additional demand the Maui DWS proposes to upgrade the Iao WTF operational capacity from 1.2 MGD to 3.2 MGD.

Maui DWS currently withdraws 1.2 MGD of raw surface water from the Iao Waikapu Ditch. The water is withdrawn from an intake structure where Iao Waikapu Ditch crosses West Alu Road. The water is then piped approximately 2500' through one 12" line and five parallel 6" lines to the existing Iao WTF, see Figure 5, Site Photographs 2.

The proposed project includes modification to the existing intake (Figure 5) and upgrades to the five parallel 6" waterlines (Figure 5). Modifications to the existing intake could include replacement of mesh screening to allow a greater quantity of water to pass through. Upgrades to the existing lines will be accomplished by replacing the five parallel 6" lines with one new 24" waterline to the Iao WTF (approximately 2000').

The current Iao WTF utilizes two (2) pre-fabricated modular Memcor® Continuous Microfiltration (CMF) units. These filtration units remove suspended solids, biomass and micro-organisms from the raw water by straining it through micron filter membranes, see Figure 6, Site Photographs 3. The Iao WTF as well as other treatment facilities on Maui currently utilize membrane filtration units. These perform well in meeting drinking water treatment requirements.

The Maui DWS proposes to add one (1) new Memcor® CMF unit now and an additional fourth unit in the future to the two (2) existing units at the site. These new units will increase the operational capacity of the Iao WTF from 1.2 MGD to 3.2 MGD. The proposed location of the first additional CMF unit can be seen in Figure 7, Proposed CMF Unit. To accommodate the new unit a concrete pad approximately 15'x18' will be poured inside the existing WTF.



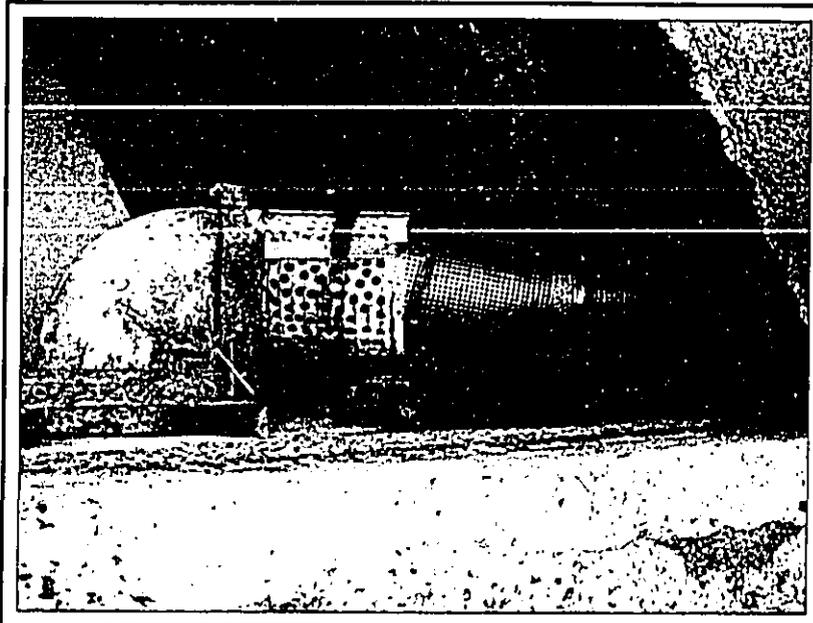


Photo 5: Intake Structure

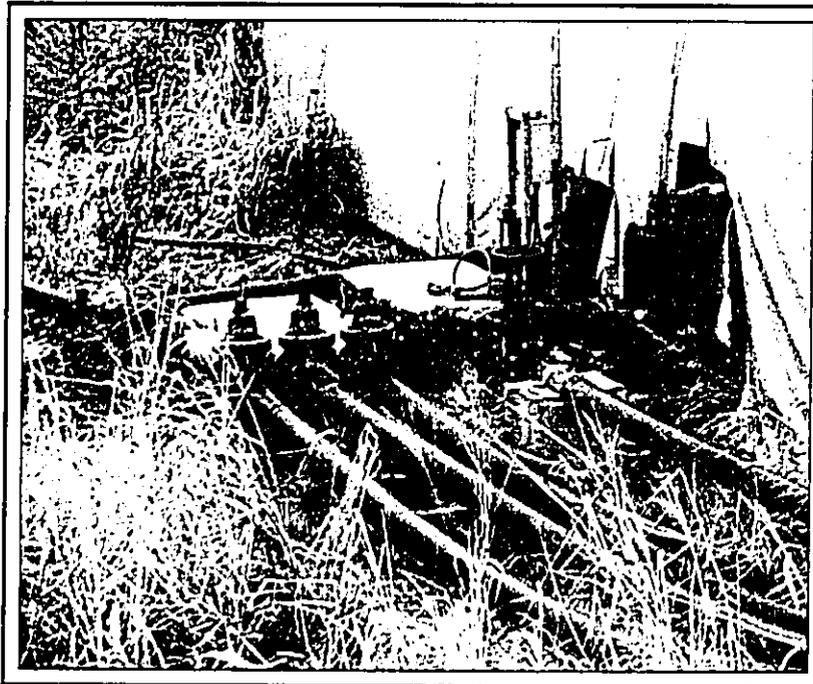


Photo 6: Five (5) 6" Waterlines



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FIGURE 5  
SITE PHOTOGRAPHS 2  
June 2004

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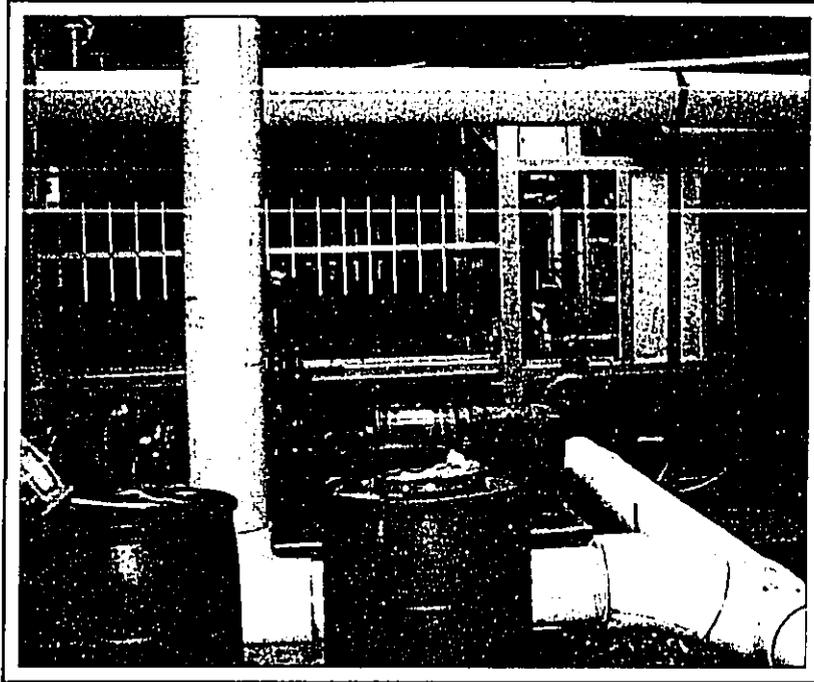


Photo 3: Existing Microfiltration Unit

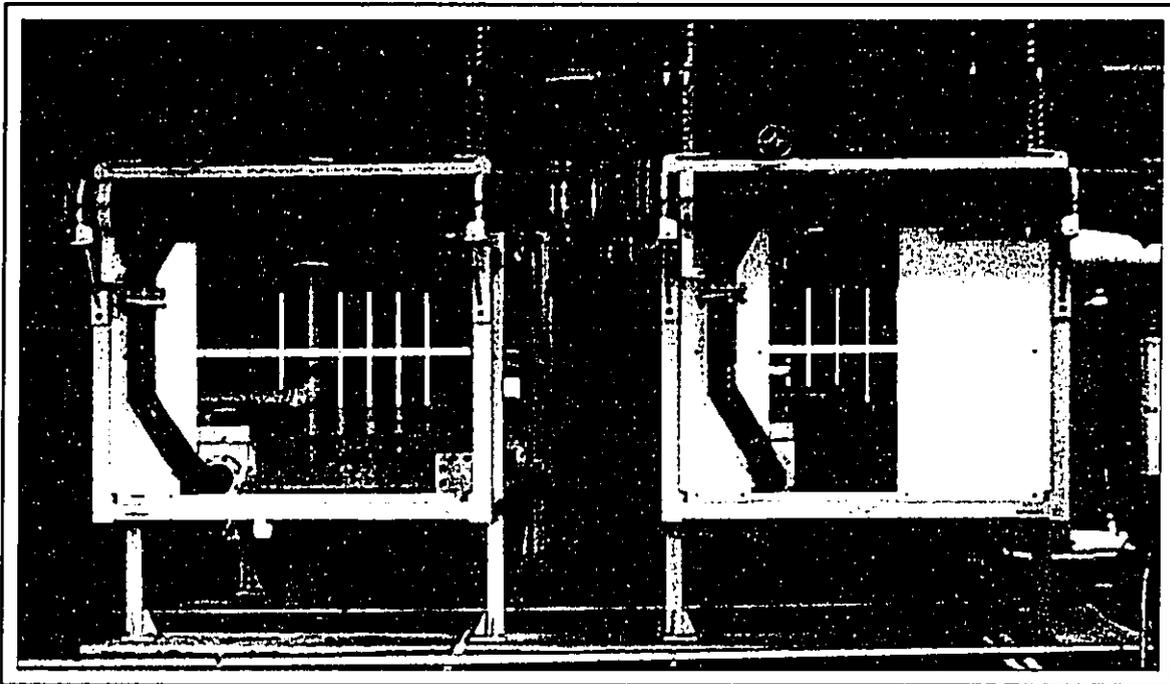


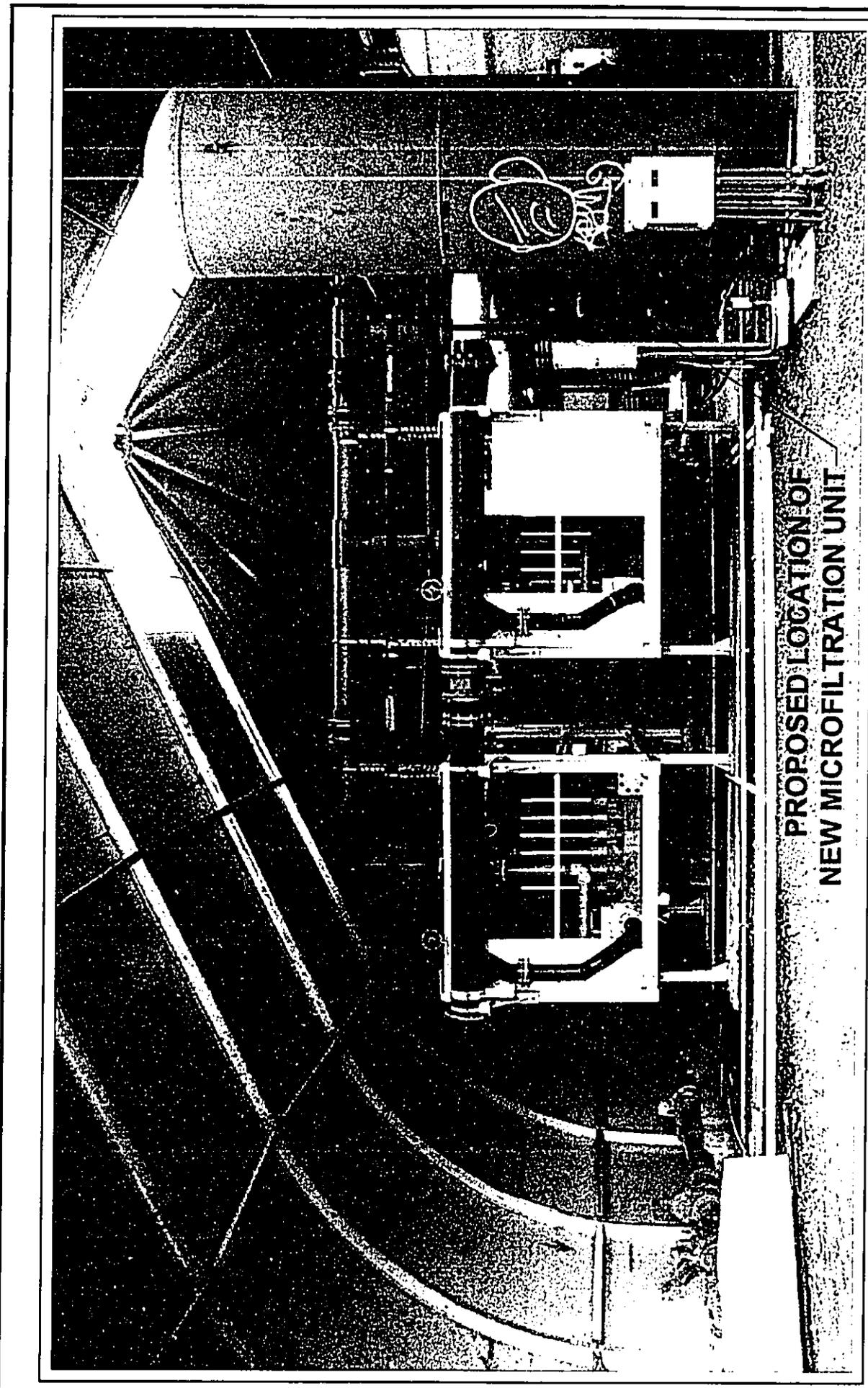
Photo 4: Existing Microfiltration Units



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FIGURE 6  
SITE PHOTOGRAPHS 3  
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PROPOSED LOCATION OF  
NEW MICROFILTRATION UNIT



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FIGURE 7  
PROPOSED CMF UNIT  
June 2004

#### **4.2 ECONOMIC**

Monies will be provided from County of Maui DWS funds and will not cause an increase in taxes to the general public. State and/or Federal funding will not be utilized for these modifications.

#### **4.3 SOCIAL**

The Iao WTF provides essential potable water to much of central Maui. Currently the Maui DWS is unable to meet the demand for water in central Maui. This additional surface water source provided by the upgrades to the Iao WTF will allow the Maui DWS to keep up with this growing demand in accordance with the Community Plan.

#### **4.4 ENVIRONMENTAL**

The implementation of the proposed upgrades to the Iao WTF will improve the overall environmental quality of the area. According to the Maui DWS Monthly Source Records, the Iao Aquifer has produced an average of approximately 18 MGD. Average monthly withdrawals ranged from 13.0 MGD to 20.3 MGD. This action will allow for planned growth in the central Maui area.

Short-term construction related impacts are expected from this project. These impacts and procedures to mitigate their effects are discussed in Section 6 of this EA.

No long-term impacts due to water treatment facility upgrades are expected.

## SECTION 5

### DESCRIPTION OF AFFECTED ENVIRONMENT

#### 5.1 PHYSICAL

##### 5.1.1 LOCATION

The island of Maui is comprised of two major volcanoes, the older West Maui and the newer East Maui, also known as Haleakala. A narrow isthmus connects these two mountains. The proposed project site is located in Wailuku on the island of Maui. The project lies between Wailuku Town and Wailuku Heights on the south side of West Alu Road. Location of the site can be seen in Figures 1 and 2.

Surface water will be extracted from the Iao Waikapu Ditch at TMK: 3-5-01:001. This ditch is owned/operated by Wailuku Agribusiness.

Water from this ditch is transported along the edge of a pasture, approximately 2500', at parcel 3-5-01:0001 to the Iao tank site located at parcel 3-5-01:021. Most of the work to be done to this facility will take place along the current waterline and at the county tank site, owned by Maui County.

##### 5.1.2 CLIMATE

Equable temperatures, moderate humidity and persistent breezes characterize Hawaii's climate. These favorable climatic conditions occur at the project site. According to the Soil Conservation Service (USDA, 1972), the average temperature in nearby Kailua, Maui is 70.7°F with average minimum and maximum monthly temperatures ranging from 64.2°F and 77.2°F, respectively.

Northeasterly trade winds prevail much of the time throughout the state of Hawaii. These trades vary in frequency. Often times they last for weeks on end. Other times they are virtually absent. This is the general result of the location of the North Pacific high pressure system. During the summer months, this system is larger, stronger and shifts farther to the north and produces stronger, more persistent trade winds. In the winter months, this high pressure system declines and shifts to the southeast at which time general wind patterns become weaker and more variable.

##### 5.1.3 AIR QUALITY

Ambient air quality refers to the state of purity of the general outdoor atmosphere. Ambient air quality is regulated under the Clean Air Act. The U.S. Environmental Protection Agency (USEPA) established National Ambient Air Quality Standards (NAAQS) for six criteria pollutants as a measure of ambient air quality. These six criteria pollutants include carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, ozone and particulate matter less than or equal to 10 micrometers (PM<sub>10</sub>). In addition, the State of Hawaii established standards for carbon monoxide and nitrogen dioxide that are more stringent than federal standards as well as an additional ambient air standard for hydrogen sulfide (HIAAQS). Table 5.1 below summarizes the federal and state air quality standards.

**TABLE 5.1  
NATIONAL AND STATE AMBIENT AIR QUALITY STANDARDS**

<b>Pollutant</b>	<b>Averaging Time</b>	<b>NAAQS (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>HI AAQS (<math>\mu\text{g}/\text{m}^3</math>)</b>
<b>Carbon Monoxide</b>	1-hour	40,000	10,000
	8-hour	10,000	5,000
<b>Nitrogen Dioxide</b>	Annual	100	70
<b>Sulfur Dioxide</b>	3-hour	No Standard	1,300
	8-hour	365	365
	Annual	80	80
<b>Lead</b>	Quarterly	1.5	1.5
<b>Ozone</b>	8-hour	157	157
<b>PM<sub>10</sub></b>	24-hour	150	150
	Annual	50	50
<b>Hydrogen Sulfide</b>	1-hour	No Standard	35

Source: Hawaii Department of Health, December 2002

Of the sixteen air monitoring sites located in the state of Hawaii, most are found on Oahu where most of the commercial and industrial activities occur. Only two sites are found on Maui. There is no monitoring station in the vicinity of the Iao WTF project site. The nearest monitoring station is located to the west in Paia. This station monitors only atmospheric PM<sub>10</sub> concentrations resulting from nearby agricultural and sugar mill operations.

In general, it is assumed that the air quality at the project sites is good. The general area around the project site is rural in character and absent of heavy industry. The monitoring station at Paia, although located some distance away and situated closer to populated areas, reported no exceedances of state or federal PM<sub>10</sub> standards during the year 2001. Also, the DOH's 2001 Annual Summary of Hawaii Air Quality Data reports that the state is in attainment for all federal ambient air quality standards.

#### 5.1.4 TOPOLOGY AND GEOLOGY

The project site is located between Wailuku and Wailuku Heights. The ground elevation of the existing WTF is approximately 510'. The land in the area of the Iao WTF generally slopes downward from the southwest to the northeast.

The area around the site was formed during the Wailuku volcanic series, and is believed to have occurred during the Pliocene or Pleistocene era. The rock from this volcanic series is characterized by thin-bedded a'a and pahoehoe flows of primitive olivine basalt, scattered cinder cones and thin tuff beds later infiltrated by numerous dikes. These volcanic deposits are overlain by alluvium from the Pliocene and Holocene eras.

#### 5.1.5 SOILS

The Soil Conservation Service of the U.S. Department of Agriculture (USDA, 1972) classifies the two soils present at the project site as part of the Wailuku Series. The USDA classifies the soil in the area of the intake structure as Wailuku silty clay, 7 to 15 percent slopes (WvC) and the soil in the vicinity of the WTF as Wailuku silty clay, 3 to 7 percent slopes (WvB), see Figure 8, Soils Map.

The Wailuku series consist of well drained soils on alluvial fans developed from the weathering of basic igneous rocks. They are gently to moderately sloping and have elevations that range from 50' to 1000'. These soils are used for sugarcane, pasture and home sites. The natural vegetation consists of bermudagrass, guineagrass, koa haole and Natal redbud. The soil profile for this series is representative of both the WvC and WvB soils.

In a representative profile the surface layer is dark reddish-brown silty clay about 12 inches thick. The subsoil, about 48 inches thick, is dark reddish-brown silty clay that has subangular blocky structure. The substratum is gravelly and cobbly alluvium. The soil is slightly acid to medium acid in the surface layer and slightly acid in the subsoil.

Permeability is moderate. Runoff is slow to medium, and the erosion hazard is slight to moderate. The available water capacity is about 1.6 inches per foot in both the surface and subsurface layers.



### 5.1.6 WATER RESOURCES AND HYDROLOGY

The Central Maui Water System receives its water from 3 major sources, 2 groundwater sources and 1 surface water source. The groundwater sources include the lao Aquifer and the Waihee Aquifer and surface water source is the lao Waikapu Ditch. The lao and Waihee Aquifers sustainable yields are 20 MGD and 4 MGD, respectively, and the lao Waikapu Ditch withdrawal is currently 1.2 MGD with a proposed increase to 2.4 MGD and a future increase to 3.2 MGD.

The lao Waikapu ditch receives its water from the lao Stream. The lao Stream has the greatest discharge of any stream on the Island Maui. The average daily discharge is 43 MGD (The State of Hawaii Data Book 2001). This stream originates in the West Maui Mountains and is considered to be fairly pristine. According to the *Water Quality Standards Map of the Island of Maui*, October 1987 the lao Stream is classified as a Class 2 stream.

Water is diverted from the lao Stream to the lao Waikapu Ditch by Wailuku Agribusiness for irrigation of agricultural lands. An agreement of water usage by the Maui DWS has been reached with Wailuku Agribusiness (see Appendix D). The agreement allows Maui DWS to increase its existing withdrawal from the lao Waikapu Ditch to a maximum of 3.2 MGD. Wailuku Agribusiness agreed to reallocate water in its lao Waikapu Ditch System, which is currently being utilized for agricultural purposes, to Maui DWS. This reallocation of water will enable Maui DWS to provide potable water to an increasing demand from the public without altering current conditions of the lao Aquifer (increased pumping) or the lao Stream (increased diversions).

### 5.1.7 NATURAL HAZARDS

#### FLOODS

The project site is located in Zone C, determined by the Federal Emergency Management Agency. This zone is described as an area of minimal flooding. See Figure 9, FIRM Map.

#### HURRICANES

The first hurricane officially recorded in Hawaii (Hiki) occurred in 1950. Newspaper accounts and meteorological data collection indicate that storm systems occur more frequently in Hawaiian waters than previously thought (Atlas of Hawaii, 1998). More recently, Hurricanes Iwa (1982) and Iniki (1992) struck the Hawaiian Islands.

Hawaii remains vulnerable to hurricanes, although they are rare events. These storms bring very heavy rains that may contribute to soil and slope instability.

#### EARTHQUAKES

Earthquakes in Hawaii typically result from magmatic migration underground. Haleakala is a dormant volcano that is believed to have erupted last in the 1700's. As this volcano is not extinct, it could erupt again in the future and therefore earthquakes associated with underground lava movements are possible. The entire island of Maui is designated as Seismic Zone 2B based upon the United Building Code's (UBC) seismic zone criteria that range from 0-4.



### **5.1.8 FLORA AND FAUNA**

The site is currently occupied by an existing water storage tank and a water treatment facility. A previous study conducted by the Division of Forestry and Wildlife found no evidence of threatened or endangered species, nor critical habitats for native Hawaiian fauna. Presently the vegetation present at and around the site is not of native origin nor is a critical habitat to host native fauna (see Appendix B). A second consultation with the Division of Forestry and Wildlife was initiated to review the past determination. Confirmation of this determination was received and the Division of Forestry and Wildlife found no evidence of threatened or endangered species at or around the site (see Appendix B).

### **5.1.9 VISUAL**

The project site is very rural in nature. Steep, vegetated slopes are located above the project site and open fields and pasture lands are below it. Unobstructed view planes extend from the mountains to the ocean from the elevated project site. No buildings or dwellings beyond the water treatment facility are located on or near the project site.

## **5.2 SOCIAL**

### **5.2.1 SECTION 106 AND CULTURAL RESOURCES**

Formal consultation for Section 106 of the National Historic Preservation Act (NHPA) is a requirement for projects that receive federal funding. As no federal monies will be utilized for this project, no formal consultation was undertaken to comply with Section 106 of the NHPA.

During a previous EA for the site the SHPD conducted a site inspection. This inspection confirmed that the area was previously impacted by water tank construction and subsequent demolition. The area of the water line was impacted by pineapple or sugar cane cultivation. At that time (1996) it was determined that the SHPD believes this project will have "no effect" on historic sites (See Appendix C).

Consultation was initiated with the Department of Land and Natural Resources' Historic Preservation Division (SHPD) to determine the presence, if any, of cultural resources. A review of the SHPD website confirms that there are no historic sites in the project vicinity.

### **5.2.2 PUBLIC SERVICES/INFRASTRUCTURE**

Public services and infrastructure exists in the vicinity of and on the Iao tank site. West Alu Road is a public road maintained by the County of Maui. Adjacent to the tank site is an electrical sub-station owned by Maui Electric Company, Ltd. The tank site is owned by the County of Maui and plays an integral part in Central Maui's potable water supply. The site contains a 3 million gallon water storage tank and a two unit microfiltration facility.

### **5.2.3 NOISE**

The project site is located in rural area outside of Wailuku Town. No industrial or commercial activities occur near the project site as it is surrounded by pastures. Ambient noise levels are derived primarily from passing traffic or other natural sources.

### **5.2.4 TRAFFIC**

The site is located on West Alu Road which serves as a connector road from Wailuku Heights to Wailuku Town. The majority of the users are anticipated to be residents

traveling to and from work in Wailuku Town. Elevated traffic times are considered to be early morning and late afternoon.

#### **5.2.5 RECREATIONAL FACILITIES**

No recreational facilities exist immediately adjacent to either proposed project site.

### **5.3 SOCIO-ECONOMIC**

#### **5.3.1 DEMOGRAPHICS**

The Wailuku Census Designated Place (CDP) is located in the central region of the island of Maui. According to the 2000 census the total population of the area is 12,296 people. The population density of the town of Wailuku is 2,411 (where 12,296 people reside on 5.1 square miles) while that of the entire island of Maui is 152 (as 117,644 people residing on 772 square miles).

#### **5.3.2 SOCIO-ECONOMIC ENVIRONMENT**

Tourism is the primary business of Maui County. Agriculture is another prime business. Historically, suitable lands in the Wailuku district have been utilized for agricultural purposes. Most of the heavy industry that exists is in nearby Kahului.

The 2000 Census provided a profile of the general demographic and socio-economic environment of the Wailuku CDP. While this may not apply to all communities within the Central Maui System, it does provide a glimpse of the social environment in the vicinity of the project site. The median age of the Wailuku district resident is 38.5 years old. Of the population 16 years and over, 62% are employed while 38% is either unemployed or not in the labor force (retired, disabled, etc.) Typical occupations include management, service, sales, farming, construction, production and logistics. Median household annual income is \$45,587. Most households earn between \$15,000 and \$99,999 annually.

#### **5.3.3 ENVIRONMENTAL JUSTICE**

Executive Order (EO) 12898 regarding Environmental Justice requires that federal agencies take appropriate steps to identify and avoid disproportionately high and adverse effects of federal projects on the health and welfare of minority and low-income populations. As there is no federal participation by way of funding or sponsorship for this project, compliance with EO 12898 is not required for this EA.

However, facility upgrades proposed for the project site will affect all economic strata and populations equally. In fact, these facility upgrades will help meet the water demand of the surrounding community which may include both low-income and minority populations.

### **5.4 LAND USES AND OWNERSHIP**

#### **5.4.1 LAND USE DESIGNATIONS**

The land use designations for TMK: 3-5-001: 021 are as follows:

State Land Use -	Agriculture
Wailuku-Kahului Community Plan -	Agriculture
County Zoning -	Agriculture

The land use designations for TMK: 3-5-001: 001 are as follows:

State Land Use -	Urban
------------------	-------

Wailuku-Kahului Community Plan -  
County Zoning -

Project District 3  
Project District 3

#### 5.4.2 HAWAII STATE PLAN

Long-range planning for the State is provided by Chapter 226, HRS, also known as the Hawaii State Plan. This plan is a policy statement for an array of economic, physical and social development issues. Specific portions of the Hawaii State Plan related to proposed water treatment facility at the project site are as follows:

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

(a)(1): "Maintenance and pursuit of improved quality in Hawaii's land, air, and water resources."

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

(b)(2): "Promote the proper management of Hawaii's land and water resources."

**§ 226-14 Objectives and policies for facility systems – In general.**

(b)(1): "Accommodate the needs of Hawaii's people through coordination of facility systems and capital improvement priorities in consonance with state and county plans."

**§ 226-16 Objectives and policies for facility systems – water.**

(b)(5): "Support water supply services to areas experiencing critical water problems."

#### 5.4.3 STATE LAND USE LAW

The State Land Use Law, Chapter 205 of the HRS, classifies all state lands in one of four categories: urban, rural, agricultural and conservational. Permitted uses for each category are defined in statute. The state assumes sole management responsibility in the conservation district, county governments assume sole responsibility in the urban district, and both share responsibilities in the rural and agricultural districts.

Project parcels affected by the proposed WTF upgrades include TMK: 3-5-001 parcels 021 and 001. Both of these parcels are classified by the State as Agricultural and Rural.

Specifically, the Land Use Law relates to the two proposed project sites as follows:

**§ 205-4.5 Permissible uses within the agricultural districts.**

(a)(7): "Public, private, and quasi-public utility lines and roadways, transformer stations, communications equipment buildings, solid waste transfer stations, major water storage tanks, and appurtenant small buildings such as booster pumping stations, but not including offices or yards for equipment, material, vehicle storage, repair or maintenance, or treatment plants, or corporation yards, or other like structures."

#### 5.4.4 COUNTY OF MAUI

Maui County's General Plan incorporates five major themes: 1) protection of Maui County's agricultural, land and rural identity, 2) preparation of a directed and managed growth plan, 3) protection of Maui County's shoreline and limitation of visitor industry

growth, 4) maintenance of a viable economy offering diverse employment opportunities for residents and 5) provision for needed resident housing.

Specific land use objectives incorporated in the first theme include the effective use of land in accordance with the character of various communities, use of the land for the social and economic benefit of all County residents, and preservation of land for agricultural pursuits.

The Wailuku-Kahului Community Plan advances planning goals, objectives, policies and implementation considerations for the Wailuku-Kahului district through the year 2010. This plan specifies the need for public infrastructure upgrades and the development and transmission of new sources of potable water for the area, which is part of the Central Maui System. The need for this water is essential to accommodate long-term growth projections.

#### **5.4.5 PROPERTY OWNERSHIP**

Two properties are affected by the proposed upgrades to the Iao WTF project site. They include those properties identified as 2<sup>nd</sup> Tax Division TMK: 3-5-01: parcels 021 and 001. Parcel 021 is owned by the County of Maui and parcel 001 is owned by Kehalani Mauka LLC.

## SECTION 6

### SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

#### 6.1 INTRODUCTION

Chapter 343, HRS requires EAs to present a summary of the potential project impacts and mitigation measures. These impacts, both detrimental and beneficial, include primary, secondary and cumulative effects. Primary effects are those directly caused by undertaking the proposed action and occur at the same time and place. Secondary effects are those that directly result from the proposed action but occur at a later date and time, or are further removed in distance but still are foreseeable. Cumulative impacts result from the direct incremental impacts of the proposed project that add to impacts of other past present and reasonable foreseeable future projects.

#### 6.2 PHYSICAL

##### 6.2.1 CLIMATE

No short-term or long-term adverse impacts to the climate are anticipated in the project area. Therefore no mitigative measures are required.

##### 6.2.2 AIR QUALITY

The principal sources of air pollution associated with this project will be fugitive dust emissions resulting from excavation and vehicular emissions resulting from the operation of construction equipment and vehicles. These effects are short-term in nature and will cease upon completion of the proposed projects. No long-term effect on air quality due to the operation of construction equipment or vehicles is anticipated as their presence and use will be temporary. No cumulative effects on air quality are anticipated due to the temporary nature of the construction activity.

Construction activities will incorporate dust control measures and Best Management Practices (BMPs) such as a regular dust-watering program during excavation of soils. Areas cleared of vegetation will be re-vegetated as soon as possible to reduce dust emissions as well.

##### 6.2.3 TOPOLOGY AND GEOLOGY

No short-term or long-term effects on topology are anticipated. No new grading will take place on the site. All work to the site will be done inside the existing water treatment facility and replacement of 6" waterlines will match existing grade. Therefore no mitigation measures are required.

##### 6.2.4 SOILS

No short-term or long-term adverse impacts to the soils are anticipated in the project vicinity. Therefore, no mitigative measures are required.

##### 6.2.5 WATER RESOURCES

The Hawaii Administrative Rules (HAR), Title 11 Chapter 54 – Water Quality Standards defines Class 2 streams as those whose uses are to be protected for recreational purposes, propagation of fish and aquatic life, promotion of agricultural and industrial water supplies, shipping navigation and propagation of shellfish. These waters are not to receive any discharges that have not received the best degree of treatment of control compatible with criteria established for this class of waters.

Construction activities at the project site should have no effect on the water resources around the site. No new grading will take place at the site and very little new construction will take place. Should any construction activities take place that may introduce run-off into surrounding waters then the contractor will be required to implement Best Management Practices (BMPs) to protect them.

The lao Stream is located several thousand feet from the lao WTF. The water allocated to the facility is from the lao Waikapu Ditch which has been diverted from the lao Stream and piped to the ditch. The amount of water redirected from the lao Stream will not be increased and is currently being utilized by Wailuku Agribusiness. Since the lao Waikapu Ditch is located upslope from the WTF it is not anticipated that it will be impacted by run-off. Therefore, no mitigative measures on ditch withdrawal are required.

The area to be disturbed by construction on the site will not exceed one acre and therefore a National Pollution Discharge Elimination System (NPDES) permit will not be required.

#### **6.2.6 NATURAL HAZARDS**

##### **FLOODS**

The project site is not located in a flood zone. No adverse impacts are anticipated for the long-term. Therefore no mitigation measures are required.

##### **HURRICANES**

Modifications to the facility will not affect the climate in the vicinity of the project areas. Nor will this project impart any short-term or long-term adverse effects on the local environment. Therefore, no mitigative measures are required.

##### **EARTHQUAKES**

Earthquakes are an ever-present threat, for both the short-term and the long-term. The new slab to support the microfiltration unit will incorporate seismic zone requirements.

#### **6.2.7 FLORA AND FAUNA**

Replacement of the five (5) 6" lines extending from the junction box to the lao WTF will cause minimal short term adverse impacts on local vegetation. All of the work associated with the replacement of the 6" lines will take place in the pasture between the junction box and the WTF, and will only disturb various grasses. All disturbed areas will be re-vegetated as soon as possible upon completion of the waterline upgrades to prevent soil erosion and reduce visual impacts.

No endangered wildlife habitats are noted in the EA for Wailuku WTF upgrades and no endangered wildlife habitats are anticipated to exist in the vicinity of the proposed project site. Therefore, no mitigative measures are required.

#### **6.2.8 VISUAL**

Construction activities will disrupt aesthetic qualities temporarily. Disruptions will be minor and short-term and primarily will result from activities associated with the replacement of the 6" waterlines. All disturbed areas will be re-vegetated as soon as possible upon completion of the waterline upgrades to prevent soil erosion and reduce minor visual impacts. No visual changes will occur to the WTF because all work will be done inside the existing housing. No significant short-term or long-term impacts are anticipated therefore, no mitigation measures are required.

### **6.3 SOCIAL**

#### **6.3.1 CHAPTER 6E-42 HISTORIC PRESERVATION AND CULTURAL RESOURCES**

Construction activities have the potential to exert short-term, long-term and cumulative impacts on cultural resources existing at the proposed project sites. Currently, based on a review of SHPD's website, no historic sites exist near site. It is unlikely that significant historic sites exist within project site due to prior construction activities and past uses of the agricultural lands.

In order to mitigate the possible impact of construction activities upon any potential resources, SHPD is reviewing the proposed work area and it is anticipated that "no historic properties will be affected by this undertaking." The area has been previously altered and disturbed and the proposed undertaking will be located primarily within the previously disturbed areas WTF. Should the Contractor uncover any cultural resources during his construction activities, he will be required to stop work immediately and notify the SHPD of his finds. SHPD will then determine the appropriate treatment of these new finds. The Maui DWS will comply with all SHPD requirements.

#### **6.3.2 PUBLIC SERVICES/INFRASTRUCTURE**

West Alu Road is a public road maintained by the County of Maui. No road closures or traffic disruptions are anticipated to take place in conjunction with the WTF upgrades. Therefore, no mitigative measures are required.

The electrical sub-station owned by Maui Electric Company, Ltd will not be affected by work conducted during the upgrades to the WTF. Therefore, no mitigative measures are required.

The tank site is owned by the County of Maui and plays an integral part in Central Maui's potable water supply. The site contains a 3 million gallon water storage tank and a two unit microfiltration facility. No disruption of water service is anticipated from facility upgrade work. Therefore, no mitigative measures are required.

#### **6.3.3 NOISE**

Construction activities will result in elevated noise levels. Typical heavy construction equipment will include but may not be limited to bulldozers, backhoes, front loaders, concrete trucks, flat bed trucks, etc. Typical noise levels generated by this equipment will range from 80-90 decibels (dBA). These will be short-term and minor. Noise generated by construction activities will comply with noise provisions established by the State Department of Health and no further measures are required to mitigate short-term impacts. Construction activities are short-term and localized in nature, therefore no long-term or cumulative impacts are anticipated due to the proposed projects and no other mitigative measures are required.

#### **6.3.4 TRAFFIC**

There will be minimal impacts to traffic during modifications to the Iao WTF. Increased traffic will occur from the movement of construction vehicles and crews to and from the site. This traffic is anticipated to have little effect on the overall flow of traffic in the area since all of the work will take place on the site away from the roadway.

No work will be done to the existing roadway and no road closures are expected. Therefore no mitigative measures are required.

### **6.3.5 RECREATIONAL FACILITIES**

No recreational facilities exist in the vicinity of the proposed project areas. Therefore, no short-term, long-term or cumulative adverse impacts are anticipated. No mitigative measures are required.

## **6.4 SOCIO-ECONOMIC**

### **6.4.1 DEMOGRAPHICS**

Upgrades to the existing Iao WTF will help provide potable water to Central Maui. It is not anticipated that it will induce or reduce population in Central Maui in the short-term or long-term beyond that of the Community Plan. Therefore, no mitigation measures are required.

### **6.4.2 SOCIO-ECONOMIC ENVIRONMENT**

The socio-economic environment, for all classes, is expected to improve from upgrades to the Iao WTF. Work related to the upgrades of the WTF is not anticipated to restrict traffic or require closure of any businesses. This work will also not cause the interruption of water service to current Maui DWS customers. Therefore, no mitigation measures are required.

### **6.4.3 ENVIRONMENTAL JUSTICE**

These proposed projects are funded entirely by the Maui DWS monies and are not federally funded. Therefore the Maui DWS is not required to identify and avoid disproportionate adverse effects on minority or low-income populations. However, this site is presently being used as a WTF. The addition of one new microfiltration unit does not require the use of any additional lands nor does it require the relocation of any residents.

No other negative impacts, long-term or cumulative, are anticipated. Therefore, no mitigation measures are required.

## **6.5 LAND USE**

### **6.5.1 HAWAII STATE PLAN**

Two objectives of the Hawaii State Plan are the maintenance and pursuit of improved quality in Hawaii's water quality and the accommodation of Hawaii's people through coordination of facility systems and capital improvement priorities in consonance with state and county plans. The proposed actions are consistent with both of these objectives.

WTF upgrades will provide potable water to Central Maui's growing demand. It will also accommodate Hawaii's people through system upgrades allowing for growth in consonance with Hawaii's state and county plans.

### **6.5.2 STATE LAND USE LAW**

Proposed actions to upgrade the Iao WTF are consistent with the Hawaii State Land Use Law. Therefore, no mitigation measures are required.

### **6.5.3 COUNTY OF MAUI**

The proposed project is consistent with County of Maui's General Plan. Specific land use objectives contained in this plan include the use of land for social and economic benefit of County residents and the preservation of agricultural lands. Planned water treatment facility upgrade strategies will provide social and economic benefits to County

residents through increased availability of potable water to an area experiencing rapid growth and increased demand.

**6.5.4 PROPERTY OWNERSHIP**

The County of Maui currently owns the property identified by TMK: 3-5-01: parcel 021. The upgrades to the WTF do not require the taking of any private lands. The Maui DWS is currently in the process of obtaining an easement, for waterlines, with Kehalani Mauka LLC. Therefore, no mitigation measures are required.

## SECTION 7

### ALTERNATIVES CONSIDERED

#### 7.1 NO ACTION

The Maui DWS is currently not issuing water reservations. A moratorium on issuing water meters may have to be implemented if alternate water sources are not utilized. In essence, the Maui DWS may not be able to meet the demand for providing potable water for future growth in Central Maui.

#### 7.2 NEW DRINKING WATER TREATMENT PLANT

Maui DWS is exploring the option of constructing a new water treatment facility for the Central Maui Water System. Possible source water for this option is the Waihee ditch.

This is a long term goal for the Maui DWS. The implementation time of a new facility does not meet the short-term goals of the Maui DWS. Finding a suitable location and producing a design for a treatment plant could take several years. The demand for potable water needs to be met now and this alternative lacks the resources to do so. The associated costs of building a new treatment facility are several orders of magnitude higher than the proposed upgrades. Currently, the Department does not have sufficient resources to fund such a project. The need for a large acquisition of land is required to house the project. Finally, the Maui DWS must come to an agreement with the owner of the Waihee Ditch to use the water.

This option however, is still being pursued by the department. The Maui DWS is trying to locate a suitable location and determine the long term needs of the Central Maui System.

## SECTION 8

### DETERMINATION

In accordance with Chapter 343, Hawaii Revised Statutes, this draft Environmental Assessment characterizes the technical, social and environmental issues related to Iao Water Treatment Facility upgrades. It identifies potential project impacts to the environment and their significance. It is anticipated that the proposed project will not exert any significant impacts to the environment. Therefore, the Maui DWS is issuing a Finding of No Significant Impact (FONSI).

This determination of the FONSI is based upon significance criteria listed in HRS §11-200-12 of the Environmental Impact Statement Rules. The specific criteria used in making this determination are addressed in Section 9 of this EA.

**SECTION 9****FINDINGS AND REASONS SUPPORTING PRELIMINARY DETERMINATION  
OF FINDING OF NO SIGNIFICANT IMPACT**

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

Implementation of water treatment facility upgrade strategies will not irrevocably commit to loss or destruction any natural or cultural resources. No cultural resources have been identified in the vicinity of the project site. The SHPD has been asked to identify any other resources it may be aware of. If previously unknown resources are uncovered during the course of construction, the Contractor will stop work immediately and notify the SHPD who will determine the appropriate treatment.

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

The proposed actions will not curtail the range of beneficial uses of the environment. Proposed actions consist of upgrades to the existing WTF will not alter uses of the site or the surrounding area.

3. *Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions or executive orders:*

The proposed water treatment facility upgrades are consistent with the State's goals and objectives as described in Section 6.5.

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

The proposed actions will not substantially affect the economic or social welfare of the community in a negative manner. The proposed actions will improve the economic and social welfare of the community by providing potable water and maintaining the integrity of the lao Aquifer.

5. *Substantially affects public health:*

The proposed activities will not substantially affect public health in a negative manner. Water treatment facility upgrades will improve public health by sustaining the lao Aquifer for future generations and by providing potable water to the population now.

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

Water treatment facility upgrades will not lead to secondary impacts such as population changes or effects on public facilities beyond that of the community plan.

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

Water treatment facility upgrades will not degrade environmental quality. The existing rural and agricultural quality of the area will remain. Proposed upgrades will take place inside the existing facility and along the existing waterline and will cause no change to the environmental quality of the area.

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

Upgrades to the existing facility will not have a cumulative effect on the environment. No future upgrades are planned for the facility at this time and does not involve commitment for larger action.

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

The proposed project will not substantially affect any rare, threatened or endangered species or its habitat. No rare or threatened species were identified in the vicinity of the project site.

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

The proposed projects will not substantially degrade environmental quality. Any adverse effects on air and water quality and ambient noise levels will be short-term and construction-related only. Air quality and noise levels will not exceed State DOH standards. This project will not result in long-term adverse effects. Upon completion of construction activities, air and water qualities and ambient noise levels will revert to prior levels.

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

The proposed projects are not located in an environmentally sensitive zone that is erosion-prone. The proposed project area is not located in a flood plain, tsunami zone, beach, geologically hazardous land, estuary, fresh water or coastal water.

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

All work for this project will be inside the current treatment facility or along existing waterlines. Activities associated with these upgrades are not anticipated to change or alter the character of the site. All scenic vistas and view planes will remain as they are.

13. *Requires substantial energy consumption:*

The facility upgrades will not require substantial energy consumption. Energy will only be consumed only by standard facility operations and microfiltration units.

**SECTION 10**

**PERMITS AND APPROVALS REQUIRED**

**FEDERAL**

None

**STATE**

**COUNTY OF MAUI**

Project District Phase 3 Approval

## SECTION 11

### REFERENCES

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**APPENDIX A**  
**RECORD OF FLORA AND FAUNAL INVESTIGATION**

**FORESTRY & WILDLIFE - MAUI**  
**54 S. High Street, Room 101**  
**Wailuku, HI 96793**  
**(808) 873-3502, fax 873-3505**

# Memo

**To:** Bruce Wade, Project Manager

M&E Pacific, Inc.  
841 Bishop Street, St. 1900  
Honolulu, HI 96813

**From:** Dr. Fern P. Duvall II

Wildlife Biologist

**Date:** March 8, 2004

**Re:** Floral and Faunal Survey for Proposed Iao Water Treatment Facility Upgrades,  
TMK: 3-5-01:021 & 001.

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Mr. Bruce Wade:

In response to your letter of 1 March 2004, we have no new response to our May 21, 1996 findings for the site in question. The proposed project will not negatively impact native or protected Hawaiian species.

My contacts, if there are any questions or comments: (808) 873-3502, Fax (808) 873-3505.

Mahalo and Aloha!

---

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
DIVISION OF FORESTRY AND WILDLIFE  
54 SOUTH HIGH ST., ROOM 101  
WAILUKU, HAWAII 96793-2198  
May 21, 1996

MICHAEL D. WILSON  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
  
DEPUTY DIRECTOR  
GILBERT S. COLOMA-AGARAN

AQUACULTURE DEVELOPMENT  
PROGRAM  
AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND  
ENVIRONMENTAL AFFAIRS  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND MANAGEMENT  
STATE PARKS  
WATER AND LAND DEVELOPMENT

Ms. Ellen Kraftsow  
Water Resources & Planning Division  
Maui County Board of Water Supply  
200 S. High Street, 5th Floor  
Wailuku, HI 96793

Subject: Development of a waterline attachment at the Iao  
watertank - concerns for the environmental assessment.

Dear Ms. Kraftsow:

On May 20, 1996 a site visit was made to the proposed project area. The watertank proper, the affected pasture, and the location of where the ditch pipe will be tied into the new line were all inspected.

The affected area is all pastureland, predominated by non-native vegetational communities which often occupy disturbed/pasture areas. No native birds were observed on this date. It is unlikely that native bird or insect/mollusc fauna currently associate with the project's pastureland location (possible exception is the abundant and regular overwintering migrant, the indigenous Pacific Golden Plover). No threatened or endangered faunal species were observed on site, nor is their presence at all likely.

Conclusion: This proposed project at the Iao Watertank in Wailuku Heights, Wailuku, Island of Maui, Hawaii will not negatively impact native or protected native Hawaiian species.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dr. Fern P. Duvall II".  
Dr. Fern P. Duvall II  
Wildlife Biologist  
cc. Wayne Ching, Honolulu

Appendix 6 Correspondence from Division of Forestry and Wildlife

**APPENDIX B**

**LETTER OF "NO EFFECT" FROM SHPD**

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION  
33 SOUTH KING STREET, 6TH FLOOR  
HONOLULU, HAWAII 96813

MICHAEL D. WILSON, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
GILBERT COLOMA-AGARAN

AQUACULTURE DEVELOPMENT  
PROGRAM

AQUATIC RESOURCES  
CONSERVATION AND

ENVIRONMENTAL AFFAIRS  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES

FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
DIVISION

LAND MANAGEMENT  
STATE PARKS  
WATER AND LAND DEVELOPMENT

June 6, 1996

Ms. Ellen Kraftsow  
County of Maui Board of Water Supply  
Planning Division  
P.O. Box 1109  
Wailuku, Hawaii 96793

LOG NO: 17573 ✓  
DOC NO: 9605KD32

Dear Ms. Kraftsow:

**SUBJECT: Historic Preservation Review of a Proposed Water Treatment Facility and Pipeline,  
County of Maui Iao Tank Site, Wailuku, Wailuku District, Maui  
TMK: 3-5-01: 21**

Thank you for requesting our review of a proposed water treatment facility and pipeline, to be developed by the Maui County Board of Water Supply. The water treatment facility is to be located at the existing Iao water reservoir site along Alu Road, above Wailuku Town. The proposed pipeline will connect the Waikapu (Iao) Ditch with the Iao water treatment facility.

The proposed water treatment facility is to be located on the site of a recently demolished 2 MG water tank, and adjacent to the existing 3 MG tank. The c. .5 km long pipeline will cross a former pineapple field, or follow the boundary of the field along Alu Road.

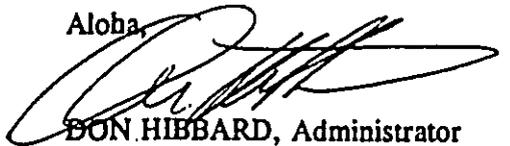
Our records indicate that no previous archaeological surveys or field inspections have been conducted within or adjacent to the proposed project. We have no records of known historic sites in the project vicinity.

An inspection of the proposed water treatment facility and pipeline routes was conducted by Historic Preservation Division staff on May 9, 1996. The inspection confirmed that the area of the proposed treatment facility has been previously impacted by water tank construction and subsequent demolition. The area of the proposed pipeline has been impacted by pineapple and possibly sugar cane cultivation. No evidence of historic sites was identified within the project area.

We believe that this project will have "no effect" on historic sites.

Please contact Ms. Theresa K. Donham at 243-5269 if you have any questions.

Aloha,

  
DON HIBBARD, Administrator  
State Historic Preservation Division

KD:jen

Appendix 4

62

**APPENDIX C**

**PUBLIC COMMENTS & RESPONSE TO COMMENTS**

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
DIVISION OF AQUATIC RESOURCES  
130 MAHALANI STREET  
WAILUKU, HAWAII 96793

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
DAN DAVIDSON  
DEPUTY DIRECTOR FOR LAND  
ERNEST Y.W. LAU  
DEPUTY DIRECTOR  
FOR THE COMMISSION ON  
WATER RESOURCES MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE  
COMMISSION  
LAND  
STATE PARKS

June 21, 2004

To: Mr. Bruce Wade, Project Manager  
M&E Pacific, Inc.  
From: *Sh* Skippy Hau, Aquatic Biologist  
Subject: Draft Environmental Assessment for Iao Water  
Treatment Facility Upgrade

There should be an assessment of the impact of diversions in Iao Stream. The current evaluation appears to assume no environmental impact. The intermittent nature of the stream because of diversions has had a detrimental effect on the natural stream ecosystem. Our ongoing biological surveys and monitoring at the stream mouth and below the bridge (by Sack N Save) during intermittent flows have documented the upstream migration of native stream animals. Some animals such as hihiwai are unable to migrate upstream and are mostly restricted to the mouth where groundwater is present and surface flow is absent most of the time.

The loss of agricultural recharge should be discussed (Water-Resources Investigations Report 00-4223 - Meyer and Presley, 2001). There has been a decrease in water recharge over time.

(P. 24) Section 6 Summary of Environmental Impacts and Mitigation Measures  
6.2.5 Water Resources

There was no discussion in your document on aquatic life or riparian vegetation found in the stream. In addition to native stream organisms 'o'opu/fishes (Gobiidae), opae/shrimp (*Atyoida bisulcata*), or hihiwai/snail (*Neitina granosa*), there has been the occurrence of exotic species such as swordtails (*Xyphophorus helleri*) and guppies (*Poecilia reticulata*) which are established in the stream near the park. We have also found apple snails (*Pomacea canaliculata*) that appear to have come from taro patches that drain into the stream. The diversions in Iao Stream continue to take almost all of the flow from the stream. The diversions restrict upstream migration and results in the loss of stream habitat in the lower part of the stream.

Post-It® Fax Note	7671	Date	6-22-04	# of pages	2
To	Mr. Bruce Wade	From	Skippy Hau		
Co./Dept.	M&E Pacific	Co./Div.	Div. of Aquatic Res.		
Phone #	529-7235	Phone #	243-5834		
Fax #	524-0246	Fax #	243-5833		

Mr. Bruce Wade  
Page 2  
June 21, 2004

The current comments try to mitigate construction impacts. However, the justification to increase the pipe size from a 6-inch pipe to 24-inches is lacking in this document. The increase in pipe size appears to take up to 14.8 times more water. How was the 24-inch size determined? Would a smaller pipe be better suited to the proposed system upgrade?

Will providing the additional potable water be sustainable for the Iao and Waihe'e aquifers and the overall watershed? Water recharge appears to be decreasing with increased impervious surfaces from continuing development.

(Page 31. 4.)

How will the proposed action improve the integrity of the aquifer? The current state of the Iao aquifer is still not stable.

The USGS reports that since the introduction of pumping, ground-water levels have declined and the chloride concentrations of pumped water have risen above predevelopment levels at all of the well fields. They further state the transition zone between freshwater and saltwater, which has been monitored at the Waihehu deep monitor well since 1985, has been moving upward during the period of record.

The decision to discontinue large scale agriculture in the watershed has impacted the integrity of the watershed and aquifer. Establishing a minimum flow for the stream could help stabilize some of the lost groundwater recharge, restore stream habitat area, improve natural productivity and maintain stream ecosystems

c: DAR - Oahu

ALAN M. ARAKAWA  
Mayor



GEORGE Y. TENGAN  
Director

JEFFREY T. PEARSON, P.E.  
Deputy Director

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

June 25, 2004

Mr. Skippy Hau  
Division of Aquatic Resources  
Department of Land and Natural Resources  
State of Hawaii  
130 Mahalani Street  
Wailuku, Hawaii 96793

Dear Mr. Hau:

**SUBJECT: Iao Water Treatment Facility Upgrades - Response to Draft EA**

Thank you for your comments to our Draft EA for the subject project. The Department of Water Supply (DWS) has reviewed your comments listed in your June 21, 2004 letter and would like to offer the following responses:

1. Comment paragraph 1 - There should be an assessment of the impact of diversions in the Iao Stream.

**Response:** DWS and Wailuku Agribusiness entered into an agreement (see attachment), which allows DWS to withdrawal up to 3.2 million gallons per day from existing withdrawals to the Iao-Waikapu Ditch. The proposed project does not increase withdrawal from Iao Stream, since the water being withdrawn by DWS from Wailuku Agribusiness' Iao-Waikapu Ditch System is currently being utilized for agricultural purposes. Wailuku Agribusiness has agreed to reallocate some of the existing source in its Iao-Waikapu Ditch System to DWS for the purpose of easing the demand on the Iao Aquifer ground water resources. Therefore, we feel that it is beyond the scope of the project EA to address the impact of diversions in Iao Stream.

2. Comment paragraph 2 and 6 - The loss of agricultural recharge should be discussed (Water-Resources Investigations Report 00-4223 - Meyer and Presley, 2001). There has been a decrease in water recharge over time.

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Will providing the additional potable water be sustainable for the Iao and Waihe'e aquifers, and the overall watershed? Water recharge appears to be decreasing with increased impervious surfaces from continuing development.

Response: Recent over pumping of the Iao Aquifer led to its designation by the State Commission on Water Resource Management. The proposed use of surface water will provide relief to the Iao Aquifer groundwater source.

3. Comment Paragraph 4 - There was no discussion in your document on aquatic life or riparian vegetation found in the stream. In addition.....results in the loss of stream habitat in the lower part of the stream.

Response: DWS is not proposing to increase withdrawal from Iao Stream; therefore, the proposed project will not affect the existing ecosystems of the stream.

4. Comment Paragraph 5 - The current comments try to mitigate construction impacts. However, the justification to increase pipe size from a 6-inch pipe to 24-inches is lacking in this document. The increase in pipe size appears to take up 14.8 times more water. How was the 24-inch size determined? Would a smaller pipe be better suited to the proposed system upgrade?

Response: Currently the Iao Water Treatment Facility (WTF) utilizes one (1) 12-inch line and five (5) parallel 6-inch lines to transport water from the Iao Waikapu Ditch to the WTF. DWS plans to replace the five (5) 6-inch lines with one (1) new 24-inch line to provide additional flow. 24-inch pipe was selected because Maui DWS has a surplus of 24-inch pipe, which was purchased a few years ago. The use of surplus materials will reduce overall project cost and reduce the amount of surplus 24-inch pipe.

5. Comment Paragraph 7 - How will the proposed action improve the integrity of the aquifer? The current state of the Iao aquifer is still not stable.

Response: The use of surface water will ease the demand on the Iao Aquifer to meet the growing demand on the Central Maui Water System.

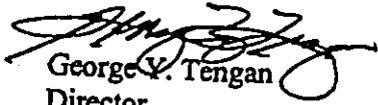
6. Comment Paragraph 9 - The decision to discontinue large scale agriculture in the watershed has impacted the integrity of the watershed and aquifer. Establishing a minimum flow for the stream could help stabilize some of the lost groundwater recharge, restore the stream habitat area, improve natural productivity and maintain stream ecosystems.
-

June 25, 2004  
Mr. Skippy Hau  
Page 3

Response: DWS is not proposing to increase withdrawal from Iao Stream; therefore, we  
the proposed project will not affect stream habitat and ecosystems.

Thank you again for your comments. Should you have any questions, please feel free to contact  
Wendy Taomoto of our Engineering Division at (808) 270-7835.

Sincerely,

  
George V. Tengan  
Director

cc: M&E Pacific, Inc.  
Attachment

ALAN M. ARAKAWA  
Mayor

GILBERT S. COLOMA-AGARAN  
Director

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

LLOYD P.C.W. LEE, P.E.  
Engineering Division

BRIAN HASHIRO, P.E.  
Highways Division

JOHN D. HARDER  
Solid Waste Division

June 9, 2004

Mr. Bruce Wade, Project Manager  
M & E Pacific, Inc.  
841 Bishop Street, Suite 1900  
Honolulu, Hawaii 96813

Dear Mr. Wade:

SUBJECT: REVIEW OF PROPOSED IAO WATER TREATMENT  
FACILITY UPGRADES  
11 SOUTH ALU ROAD, WAILUKU, MAUI  
TMK: (2) 3-5-001:001 & 021

We reviewed the subject application and have the following comment:

1. Submit plan for water line disposal/recycling/reuse.

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

Sincerely,

  
GILBERT S. COLOMA-AGARAN  
Director

GSCA:MA:sw  
S:\LUCA\ICZM\Draft Comments\35001001\_iao\_Water\_ec.wpd

ALAN M. ARAKAWA  
Mayor



GEORGE Y. TENGAN  
Director

JEFFREY T. PEARSON, P.E.  
Deputy Director

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

June 25, 2004

Mr. Gilbert S. Coloma-Agaran, Director  
County of Maui  
Department of Public Works and Environmental Management  
200 South High Street  
Wailuku, Maui, Hawaii 96793

Dear Mr. Coloma-Agaran:

**SUBJECT: Iao Water Treatment Facility Upgrades - Response to Draft EA**

Thank you for your comments to our Draft EA for the subject project. The Department of Water Supply has reviewed your comments listed in your June 9, 2004 letter and would like to offer the following responses:

**Comment:** "Submit plan for water line disposal/recycling/reuse.

**Response:** The Department of Water Supply plans to save the replaced pipes for future use. Your office will be consulted/notified should we decide to dispose of the pipe (depending on their condition).

Thank you again for your comments. Should you have any questions, please feel free to contact Wendy Taomoto of our Engineering Division at (808) 270-7835.

Sincerely,

  
George Y. Tengan  
Director

cc: M&E Pacific, Inc.

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LINDA LINGLE  
GOVERNOR OF HAWAII



**FILE COPY**

PETER T. YOUNG  
CHAIRPERSON

MEREDITH J. CHING  
CLAYTON W. DELA CRUZ  
JAMES A. FRAZIER  
CHIYOME L. FUKINO, M.D.  
STEPHANIE A. WHALEN

YVONNE Y. IZU  
DEPUTY DIRECTOR

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

June 9, 2004

Mr. Bruce Wade  
M&E Pacific  
841 Bishop Street 1900  
Honolulu, HI 96813

Dear Mr. Wade:

**SUBJECT: Iao Water Treatment Facility Upgrade**

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.

- 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.
- 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.

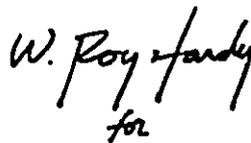
Mr. Bruce Wade  
Page 2  
June 9, 2004

- 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.
- OTHER:

Expanded diversion of surface flows would require amendment to the interim instream flow standard (IIFS). Separately, new use of surface sources may raise a request for a review of instream uses via a petition to restore flows (amending IIFS). We believe that this project provides relief from groundwater sources for additional service requirements in the Central Maui Service Area, protecting long-term flexibility of supply alternatives.

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

Sincerely,



*W. Roy Hardy*  
for

YVONNE Y. IZU  
Deputy Director

Cl:ss

c: DLNR, Land Division

ALAN M. ARAKAWA  
Mayor



GEORGE Y. TENGAN  
Director

JEFFREY T. PEARSON, P.E.  
Deputy Director

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

June 25, 2004

Ms. Yvonne Y. Izu, Deputy Director  
Commission on Water Resource Management  
Department of Land and Natural Resources  
P.O. Box 621  
Honolulu, Hawaii 96809

Dear Ms. Izu:

**SUBJECT: Iao Water Treatment Facility Upgrades - Response to Draft EA**

Thank you for your comments to our Draft EA for the subject project. The Department of Water Supply has reviewed your comments listed in your June 9, 2004 letter and would like to offer the following responses:

1. **Comment:** We recommend coordination with the county government to incorporate this project into the county's Water Use and Development Plan.  
**Response:** The Department of Water Supply is in the process of updating its Water Use and Development Plan.
2. **Comment:** 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).  
**Response:** The proposed project does not include the construction of a stream diversion; therefore, a stream diversion works permit is not required and amendment to the instream flow standard is not required.
3. **Comment:** If the proposed project alters the bed and banks of a stream channel, the project may require a stream channel alteration permit.  
**Response:** This proposed project will not alter the bed or banks of the stream channel;

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June 25, 2004  
Ms. Yvonne Y. Izu  
Page 2

therefore, a stream channel alteration permit is not required.

4. **Comment:** Expanded diversion of surface flows would require amendment to the interim instream flow standard (IIFS).

**Response:** Wailuku Agribusiness will reallocate their existing water intake and usage to Maui DWS. The project will not result in any increased diversion of the Iao Stream. No additional withdrawals of water will be taken from the Iao Stream for this project. Therefore, no amendment to the IIFS is required.

5. **Comment:** New use of surface sources may raise a request for a review of instream uses via a petition to restore flows (amending IIFS).

**Response:** Your comment is noted.

6. **Comment:** We believe that this project provides relief from groundwater sources for additional service requirements in the Central Maui Service Area, protecting long-term flexibility of supply alternatives.

**Response:** Your comment is noted.

Thank you again for your comments. Should you have any questions, please feel free to contact Wendy Taomoto of our Engineering Division at (808) 270-7835.

Sincerely,

  
George Y. Tengan  
Director

cc: M&E Pacific, Inc.

LINDA LINGLE  
GOVERNOR OF HAWAII



**FILE COPY**

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

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

In reply, please refer to:

EPO-04-120

May 28, 2004

Mr. Bruce Wade  
M&F Pacific, Inc.  
841 Bishop Street, Suite 1900  
Honolulu, Hawaii 96813

Dear Mr. Wade:

SUBJECT: Proposed Iao Water Treatment Facility Upgrades  
TMK: 3-5-01:021

Thank you for allowing us to review and comment on the subject document. We have the enclosed standard comments to offer. If there are any questions about these standard comments please contact Ryan Davenport with the Environmental Planning Office at 586-4346.

Sincerely,

A handwritten signature in cursive script, appearing to read "June F. Harrigan-Lum".

JUNE F. HARRIGAN-LUM, MANAGER  
Environmental Planning Office

Enclosure

c. SDWB  
EPO  
SHWB  
NRAIQ  
CWB  
WWB  
CAB  
HEER

## Standard Comments

### Environmental Planning Office Dated 3/2/04

The Environmental Planning Office (EPO) is responsible for several surface water quality management programs mandated by the federal Clean Water Act or dictated by State policy . (<http://www.state.hi.us/doh/eh/epo/wqm/wqm.htm>). Among these responsibilities, EPO:

- maintains the *List of Impaired Waters in Hawaii Prepared under Clean Water Act §303(d)* (<http://www.state.hi.us/doh/eh/epo/wqm/303dpcfinal.pdf>);
- develops and establishes Total Maximum Daily Loads (TMDLs) for listed waters (suggesting how much existing pollutant loads should be reduced in order to attain water quality standards, please see <http://www.epa.gov/owow/tmdl/intro.html>);
- writes TMDL Implementation Plans describing how suggested pollutant load reductions can be achieved; and
- conducts assessments of stream habitat quality and biological integrity.

To facilitate TMDL development and planning, and to assist our assessment of the potential impact of proposed actions upon water quality, pollutant loading, and biological resources in receiving waters, we suggest that environmental review documents, permit applications, and related submittals include the following standard information and analyses:

#### **Waterbody type and class**

1. Identify the waterbody type and class, as defined in Hawaii Administrative Rules Chapter 11-54 (<http://www.state.hi.us/doh/rules/11-54.pdf>), of all potentially affected water bodies<sup>1</sup>.

#### **Existing water quality management actions**

2. Identify any existing National Pollutant Discharge Elimination System (NPDES) permits and related connection permits (issued by permittees) that will govern the management of water that runs off or is discharged from the proposed project site or facility. Please include NPDES and other permit numbers; names of permittees, permitted facilities, and receiving waters (including waterbody type and class as in 1. above); diagrams showing drainage/discharge pathways and outfall locations; and note any permit conditions that may specifically apply to the proposed project.

3. Identify any planning documents, groups, and projects that include specific prescriptions for water quality management at the proposed project site and in the potentially affected waterbodies. Please note those prescriptions that may specifically apply to the proposed project.

#### **Pending water quality management actions**

4. Identify all potentially affected water bodies that appear on the current *List of Impaired Waters in Hawaii Prepared under Clean Water Act §303(d)* including the listed waterbody, geographic scope of listing, and pollutant(s) (See Table 7 at <http://www.state.hi.us/doh/eh/epo/wqm/303dpcfinal.pdf>).
5. If the proposed project involves potentially affected water bodies that appear on the current *List of Impaired Waters in Hawaii Prepared under Clean Water Act §303(d)*, identify and quantify expected changes in the following site and watershed conditions and characteristics:
  - surface permeability
  - hydrologic response of surface (timing, magnitude, and pathways)
  - receiving water hydrology
  - runoff and discharge constituents
  - pollutant concentrations and loads in receiving waters
  - aquatic habitat quality and the integrity of aquatic biota

Where TMDLs are already established they include pollutant load allocations for the surrounding lands and point source discharges. In these cases, we suggest that the submittal specify how the proposed project would contribute to achieving the applicable load reductions.

Where TMDLs are yet to be established and implemented, a first step in achieving TMDL objectives is to prevent any project-related increases in pollutant loads. This is generally accomplished through the proper application of suitable best management practices in all phases of the project and adherence to any applicable ordinances, standards, and permit conditions. In these cases we suggest that the submittal specify how the proposed project would contribute to reducing the polluted discharge and runoff entering the receiving waters, including plans for additional pollutant load reduction practices in future management of the surrounding lands and drainage/discharge systems.

#### **Proposed Action and Alternatives Considered**

We suggest that each submittal identify and analyze potential project impacts at a watershed scale by considering consider the potential contribution of the proposed project to cumulative, multi-project watershed effects on hydrology, water quality, and aquatic and riparian ecosystems.

We also suggest that each submittal broadly evaluate project alternatives by identifying more than one engineering solution for proposed projects. In particular, we suggest the

consideration of "alternative," "soft," and "green" engineering solutions for channel modifications that would provide a more environmentally friendly and aesthetically pleasing channel environment and minimize the destruction of natural landscapes.

If you have any questions about these comments or EPO programs, please contact Ryan Davenport at 586-4346.

<sup>1</sup>"Potentially affected waterbodies" means those in which proposed project activity would take place and any that could receive water discharged by the proposed project activity or water flowing down from the proposed project site. These waterbodies can be presented as a chain of receiving waters whose top link is at the project site upslope and whose bottom link is in the Pacific Ocean, and can be named according to conventions established by Chapter 11-54 and the *List of Impaired Waters in Hawaii Prepared under Clean Water Act §303(d)*. For example, a recent project proposed for Nuhelewai Stream, Oahu might potentially affect Nuhelewai Stream, Kapalama Canal, and Honolulu Harbor and Shore Areas.

[OTHER EXAMPLES OR DIAGRAM??]

**Solid and Hazardous Waste Branch** Dated 3/2/04

1)

The OSWM recommends the development of a solid waste management plan that encompasses all project phases including demolition, construction, and occupation/operation of the completed project.

Specific examples of elements that the plan should address include:

- The recycling of green-waste during clear and grub activities;
- Recycling construction and demolition wastes, if appropriate;
- The use of locally produced compost in landscaping;
- The use of recycled content building materials;
- The provision of recycling facilities in the design of the project.

-----  
2)

The developer shall ensure that all solid waste generated during project construction is directed to a Department of Health permitted solid waste disposal or recycling facility.

-----  
3)

The developer should consider providing space in the development for recycling activities. The provision of space for recycling bins for paper, glass, and food/wet waste would help to encourage the recycling of solid waste(s) generated by building occupants.

-----  
4)

The discussion of solid waste issues contained in the document is restricted to activities within the completed project. The OSWM recommends the development of a solid waste management plan that encompasses all project phases, from construction (and or demolition) to occupation of the project.

Specific examples of plan elements include: the recycling of green-waste during clear and grub activities; maximizing the recycling of construction and demolition wastes; the use of locally produced compost in the landscaping of the project; and the provision of recycling facilities in the design of the project.

5)

Hawaii Revised Statutes Chapter 103D-407 stipulates that all highway and road construction and improvement projects funded by the State or a county or roadways that are to be accepted by the State or a county as public roads shall utilize a minimum of ten per cent crushed glass aggregate as specified by the department of transportation in all base-course (treated or untreated) and sub-base when the glass is available to the quarry or contractor at a price no greater than that of the equivalent aggregate.

If you have any questions, please contact the Solid and Hazardous Waste Branch at (808) 586-4240.

**Noise, Radiation & Indoor Air Quality Branch** Dated 3/2/04

“Project activities shall comply with the Administrative Rules of the Department of Health:

- Chapter 11-39            Air Conditioning and Ventilating.
- Chapter 11-45            Radiation Control.
- Chapter 11-46            Community Noise Control.
- Chapter 11-501           Asbestos Requirements.
- Chapter 11-502           Asbestos-Containing Materials in Schools.
- Chapter 11-503           Fees for Asbestos Removal and Certification
- Chapter 11-504           Asbestos Abatement Certification Program

Should there be any questions, please contact Russell S. Takata, Environmental Health Program Manager, Noise, Radiation and Indoor Air Quality Branch, at 586-4701.”

**Clean Water Branch** Dated 3/2/04

1. The Army Corps of Engineers should be contacted at (808) 438-9258 to identify whether a Federal license or permit (including a Department of Army permit) is required for this project. Pursuant to Section 401(a)(1) of the Federal Water Pollution Act (commonly known as the “Clean Water Act”), a Section 401 Water Quality Certification is required for “[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters....”
2. A National Pollutant Discharge Elimination System (NPDES) general permit coverage is required for the following activities:

- a. Storm water associated with industrial activities, as defined in Title 40, Code of Federal Regulations, Sections 122.26(b)(14)(i) through 122.26(b)(14)(ix) and 122.26(b)(14)(xi).
- b. Construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. **An NPDES permit is required before the commencement of the construction activities.**
- c. Discharges of treated effluent from leaking underground storage tank remedial activities.
- d. Discharges of once through cooling water less than one (1) million gallons per day.
- e. Discharges of hydrotesting water.
- f. Discharges of construction dewatering effluent.
- g. Discharges of treated effluent from petroleum bulk stations and terminals.
- h. Discharges of treated effluent from well drilling activities.
- i. Discharges of treated effluent from recycled water distribution systems.
- j. Discharges of storm water from a small municipal separate storm sewer system.
- k. Discharges of circulation water from decorative ponds or tanks.

The CWB requires that a Notice of Intent (NOI) to be covered by a NPDES general permit for any of the above activities be submitted at least 30 days before the commencement of the respective activities. The NOI forms may be picked up at our office or downloaded from our website at <http://www.state.hi.us/health/eh/cwb/forms/genl-index.html>.

3. The applicant may be required to apply for an individual NPDES permit if there is any type of activity in which wastewater is discharged from the project into State waters and/or coverage of the discharge(s) under the NPDES general permit(s) is not permissible (i.e. NPDES general permits do not cover discharges into Class I or Class AA receiving waters). An application for the NPDES permit is to be submitted at least 180 days before the commencement of the respective activities. The NPDES application forms may also be picked up at our office or downloaded from our website at <http://www.state.hi.us/health/eh/cwb/forms/indiv-index.html>.
4. Hawaii Administrative Rules, Section 11-55-38, also requires the owner to either submit a copy of the new NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the DOH that the project, activity, or site covered by the NOI or application has been or is being reviewed by SHPD.

Please submit a copy of the request for review by SHPD or SHPD's determination letter for the project.

If you have any questions, please contact the CWB at 586-4309.

**Waste Water Branch** Dated 3/2/04

All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems". We do reserve the right to review the detailed wastewater plans for conformance to applicable rules.

Should you have any questions, please contact the Planning & Design Section of the Wastewater Branch at 586-4294.

**Clean Air Branch** Dated 3/2/04

**Construction/Demolition Involving Asbestos:**

Since the proposed project would entail renovation/demolition activities which may involve asbestos, the applicant should contact the Asbestos Abatement Office in the Noise, Radiation and Indoor Air Quality Branch at 586-5800.

**Control of Fugitive Dust:**

A significant potential for fugitive dust emissions exists during all phases of construction. Proposed construction activities will occur in proximity to **existing residences, businesses, public areas and thoroughfares**, thereby exacerbating potential dust problems. It is recommended that a dust control management plan be developed which identifies and addresses all activities that have a potential to generate fugitive dust. Implementation of adequate dust control measures during all phases of development and construction activities is warranted.

Construction activities must comply with the provisions of Hawaii Administrative Rules, §11-60.1-33 on Fugitive Dust.

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

- a) Plan the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;
- b) Provide an adequate water source at the site prior to start-up of construction activities;
- c) Landscape and provide rapid covering of bare areas, including slopes, starting from the initial grading phase;
- d) Minimize dust from shoulders and access roads;

- e) Provide adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
- f) Control dust from debris being hauled away from the project site.

**Hazard Evaluation and Emergency Response Office(HEER) Dated 3/2/04**

1. A phase I Environmental Site Assessment (ESA) should be conducted for developments or redevelopments. If the investigation shows that a release of petroleum, hazardous substance, pollutants or contaminants occurred at the site, the site should be properly characterized through an approved Hawaii State Department of Health (DOH)/Hazard Evaluation and Emergency Response Office (HEER) soil and or groundwater sampling plan. If the site is found to be contaminated, then all removal and remedial actions to clean up hazardous substance or oil releases by past and present owners/tenants must comply with chapter 128D, Environmental Response Law, HRS, and Title 11, Chapter 451, HAR, State Contingency Plan.
2. All lands formerly in the production of sugarcane should be characterized for arsenic contamination, If arsenic is detected above the US EPA Region (preliminary remediation goal (PRG) for non-cancer effects, then a removal and or remedial plan must be submitted to the Hazard Evaluation and Emergency Response (HEER) Office of the State Department of Health for approval. The plan must comply with Chapter 128D, Environmental Response Law, HRS, and Title 11, Chapter 451, HAR, State Contingency Plan.
3. If the land has a history of previous releases of petroleum, hazardous substances, pollutants, or contaminants, we recommend that the applicant request a "no further action" (NFA) letter from the Hawaii State Department of Health (DOH)/Hazard Evaluation and Emergency Response (HEER) Office prior to the approval of the land use change or permit approval.

**Safe Drinking Water Branch Dated 3/11/04**

The Safe Drinking Water Branch administers programs in the areas of: 1) public water systems; 2) underground injection control; and 3) groundwater protection. Our general comments on projects are as follows.

**Public Water Systems**

Federal and state regulations define a public water system as a system that serves 25 or more individuals at least 60 days per year or has at least 15 service connections. All public water system owners and operators are required to comply with Hawaii Administrative Rules, Title 11, Chapter 20, titled Rules Relating to Potable Water Systems.

- All new public water systems are required to demonstrate and meet minimum capacity requirements prior to their establishment. This requirement involves demonstration that the system will have satisfactory technical, managerial and financial capacity to enable the system to comply with safe drinking water standards and requirements.
- Projects that propose development of new sources of potable water serving or proposed to serve a public water system must comply with the terms of Section 11-20-29 of Chapter 20. This section requires that all new public water system sources be approved by the Director of Health prior to its use. Such approval is based primarily upon the submission of a satisfactory engineering report which addresses the requirements set in Section 11-20-29.
- The engineering report must identify all potential sources of contamination and evaluate alternative control measures which could be implemented to reduce or eliminate the potential for contamination, including treatment of the water source. In addition, water quality analyses for all regulated contaminants, performed by a laboratory certified by the State Laboratories Division of the state of Hawaii, must be submitted as part of the report to demonstrate compliance with all drinking water standards. Additional parameters may be required by the Director for this submittal or additional tests required upon his or her review of the information submitted.
- All sources of public water system sources must undergo a source water assessment which will delineate a source water protection area. This process is preliminary to the creation of a source water protection plan for that source and activities which will take place to protect the source of drinking water.
- Projects proposing to develop new public water systems or proposing substantial modifications to existing public water systems must receive approval by the Director of Health prior to construction of the proposed system or modification. These projects include treatment, storage and distribution systems of public water systems. The approval authority for projects owned and operated by a County Board or Department of Water or Water Supply has been delegated to them.
- All public water systems must be operated by certified distribution system and water treatment plant operators as defined by Hawaii Administrative Rules, Title 11, Chapter 11-25 titled; Rules Pertaining to Certification of Public Water System Operators.
- All projects which propose the use of dual water systems or the use of a non-potable water system in proximity to an existing potable water system to meet irrigation or other needs must be carefully design and operate these systems to prevent the cross-connection of these systems and prevent the possibility of backflow of water from the non-potable system to the potable system. The two systems must be clearly labeled and physically separated by air gaps or reduced pressure principle backflow prevention devices to avoid contaminating the potable water supply. In addition backflow devices must be tested periodically to assure their proper operation. Further, all non-potable spigots and irrigated areas

should be clearly labeled with warning signs to prevent the inadvertent consumption on non-potable water. Compliance with Hawaii Administrative Rules, Title 11, Chapter 11-21 titled; Cross-Connection and Backflow Control is also required.

All projects which propose the establishment of a potentially contaminating activity (as identified in the Hawai'i Source Water Assessment Plan) within the source water protection area of an existing source of water for a public water supply should address this potential and activities that will be implemented to prevent or reduce the potential for contamination of the drinking water source.

For further information concerning the application of capacity, new source approval, operator certification, source water assessment, backflow/cross-connection prevention or other public water system programs, please contact the Safe Drinking Water Branch at 586-4258.

#### **Underground Injection Control (UIC)**

Injection wells used for the subsurface disposal of wastewater, sewage effluent, or surface runoff are subject to environmental regulation and permitting under Hawai'i Administrative Rules, Title 11, Chapter 11-23, titled Underground Injection Control (UIC). The Department of Health's approval must be first obtained before any injection well construction commences. A UIC permit must be issued before any injection well operation occurs.

Authorization to use an injection well is granted when a UIC permit is issued to the injection well facility. The UIC permit contains discharge and operation limitations, monitoring and reporting requirements, and other facility management and operational conditions. A complete UIC permit application form is needed to apply for a UIC permit.

A UIC permit can have a valid duration of up to five years. Permit renewal is needed to keep an expiring permit valid for another term.

For further information about the UIC permit and the Underground Injection Control Program, please contact the UIC staff of the Safe Drinking Water Branch at 586-4258.

#### **Groundwater Protection Program**

Projects that propose to develop a golf course are asked to use the Guidelines Applicable to Golf Courses in Hawai'i (Version 6) in order to address certain groundwater protection concerns, as well as other environmental concerns

ALAN M. ARAKAWA  
Mayor



GEORGE Y. TENGAN  
Director

JEFFREY T. PEARSON, P.E.  
Deputy Director

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

June 25, 2004

Ms. June F. Harrigan-Lum, Manager  
Environmental Planning Office  
Department of Health  
State of Hawaii  
P.O. Box 3378  
Honolulu, Hawaii 96801-3378

Dear Ms. Harrigan-Lum:

**SUBJECT: Iao Water Treatment Facility Upgrades - Response to Draft EA**

Thank you for your comments to our Draft EA for the subject project. The Department of Water Supply (DWS) has reviewed your comments listed in your May 28, 2004 letter and would like to offer the following responses:

**Environmental Planning Office**

1. **Comment:** "Identify water body and type and class, as identified in HRS Chapter 11-54, of all potentially affected water bodies."  
**Response:** According to the Water Quality Standards Map of the Island of Maui, October 1987 the Iao Stream is classified as a Class 2 stream. See section 5.1.6 of the Final EA.
2. **Comment:** "Identify any existing National Pollutant Discharge Elimination System (NPDES) permits.....and note any permit conditions that may specifically apply to the proposed project."  
**Response:** There are no existing NPDES permits, nor will the project require granting of any NPDES permits.

*"By Water All Things Find Life"*

Printed on recycled paper



3. **Comment:** "Identify any planning documents, groups, and projects.....note those prescriptions that may specifically apply to the proposed project."
- Response:** Project District Phase III approval is needed from the County of Maui Department of Planning.
4. **Comment:** "Identify all potentially affected water bodies that appear on the current List of Impaired Waters in Hawaii Prepared under Clean Water Act §303(d) including the listed waterbody, geographic scope of listing, and pollutant(s)."
- Response:** No additional water will be withdrawn from the Iao Stream. Wailuku Agribusiness will reallocate their water uses to allow Maui DWS to increase its production of potable water. Despite the fact that the Iao Stream will not be affected, it does appear on the current *List of Impaired Waters in Hawaii*. The listed waterbody is Iao Stream, geographic scope of listing is Iao Stream, and pollutants are turbidity and trash based on a visual assessment.
5. **Comment:** "If the proposed project involves potentially affected water bodies that appear on the current List of Impaired Waters in Hawaii Prepared under Clean Water Act §303(d), identify and quantify expected changes in the following site and watershed characteristics:
- Surface permeability
  - Hydrologic response of surface (timing, magnitude, and Pathways)
  - Receiving water hydrology
  - Runoff and discharge constituents
  - Pollutant concentrations and loads in receiving waters
  - Aquatic habitat quality and the integrity of aquatic biota"
- Response:** As stated above, no additional waters will be withdrawn from the Iao Stream and therefore, will not cause any changes to or affect watershed characteristics.
6. **Comment:** "We suggest that each submittal identify.....effects on hydrology, water quality, and aquatic and riparian ecosystems."

Response: Since there will be no additional withdrawal of water from the Iao Stream, there will be no effects on hydrology, water quality, and aquatic and riparian rights.

7. Comment: "We also suggest that each submittal broadly project alternatives.....and minimize the destruction of natural landscapes."

Response: Other alternatives were analyzed as options to relieve the Iao Aquifer. The selected alternative proposes only slight modifications to an existing facility minimizing destruction of natural landscapes. Iao Aquifer is currently pumping at or beyond its sustainable yield eliminating the option of pumping more water from it. The DWS is exploring the option of constructing a new water treatment facility for the Central Maui Water System. See section 7 of the final EA.

**Solid and Hazardous Waste Branch**

1. Comment: "The OSWM recommends the development of a solid waste management plan.....occupation/operation of the completed project."

Response: Your comment is noted. There will be no new construction only the addition of new equipment and replacement of existing pipes.

2. Comment: "The developer shall ensure that all solid waste generated during the construction project is directed to a DOH permitted solid waste disposal or recycling facility."

Response: All solid waste generated will be disposed of properly at a DOH permitted disposal site.

3. Comment: "The developer should consider providing.....encourage the recycling of solid waste(s) generated by building occupants."

Response: Your comment is noted.

4. Comment: "The discussion of solid waste issues.....from construction (and or demolition) to occupation of the project."

Response: Your comment is noted.

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Ms. June F. Harrigan-Lum, Manager  
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5. Comment: "HRS Ch. 103D-407 stipulates.....at a price no greater than that of the equivalent aggregate."

Response: This project does not involve any highway or road construction.

**Noise, Radiation & Indoor Air Quality Branch**

Comment: "The project shall comply with the Administrative Rules of the DOH: Chapters; 11-39, 11-45, 11-46, 11-501, 11-502, 11-503 & 11-503."

Response: Contract documents require compliance with DOH rules.

**Clean Water Branch**

1. Comment: "The Army Corps of Engineers should be contacted.....which may result in any discharge into navigable waters..."

Response: This project does not involve any activity which will result in any discharge into navigable waters.

2. Comment: "A National Pollutant Discharge Elimination System (NPDES) general permit coverage.....may be picked up at our office or downloaded from our website."

Response: None of the activities listed will occur in this proposed project; and therefore, will not require any NPDES permits.

3. Comment: "The applicant may be required to apply for.....180 days before the commencement of the respective activities."

Response: Your comment is noted. NPDES permits are not required for this project.

4. Comment: "HRS, Section 11-55-38, also requires.....request for review by SHPD or SHPD's determination letter for the project"

Response: Your comment is noted. NPDES permits are not required for this project; and therefore, will not be submitted to SHPD.

**Waste Water Branch**

Comment: "All wastewater plans must conform to applicable provisions.....review the detailed wastewater plans for conformance to applicable rules"

Response: This project does not involve wastewater.

**Clean Air Branch**

1. Comment: "Since the proposed project would entail renovation/demolition activities.....and Indoor Air Quality Branch at 586-5800."

Response: The renovation/demolition at the project site will not involve the removal of any asbestos material.

2. Comment: "A significant potential for fugitive dust emissions exist during all phases of construction. Proposed construction activities.....during all phases of development and construction activities is warranted."

Response: Your comment is noted. Dust control measures will be included in all phases of construction.

3. Comment: "Construction activities must comply with the provisions of HRS, §11-60.1-33 on Fugitive Dust."

Response: Contract documents will require HAR compliance regarding fugitive dust control.

4. Comment: "The contractor should provide adequate measures to control dust ..... from the project site."

Response: Your comment is noted.

**Hazard Evaluation and Emergency Response Office (HEER)**

1. Comment: "A phase I ESA should be conducted for.....must comply with chapter 128D, Environmental Response Law, HRS, and Title 11, Chapter 451, HAR, State Contingency Plan."

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Response: This project will not involve development or redevelopment; therefore, a Phase I ESA is not applicable to this project and will not be prepared.

2. Comment: "All lands formerly in the production of sugarcane..... must comply with chapter 128D, Environmental Response Law, HRS, and Title 11, Chapter 451, HAR, State Contingency Plan."

Response: This project will provide new equipment to an existing facility; therefore, an arsenic investigation will not be undertaken.

3. Comment: "If the land has a history of previous releases of.....prior to the approval of the land use change or permit approval."

Response: The land on the subject property does not have a history of previous releases of petroleum, hazardous substances, or contaminants.

#### **Safe Drinking Water Branch**

1. Comment: "Federal and state regulations define a public water system.....and are required to comply with Hawaii Administrative Rules, Title 11, Chapter 20, titled Rules Relating to Potable Water Systems."

Response: Your comment is noted. This project will expand on an existing potable water source.

2. Comment: "All new public water systems are required to demonstrate.....the system to comply with safe drinking water standards and requirements."

Response: Your comment is noted.

3. Comment: "Projects that propose development of new sources of potable water.....upon the submission of a satisfactory engineering report which addresses the requirements set in Section 11-20-29."

Response: Your comment is noted. This project will not involve a new source of potable water.

4. Comment: "The engineering report must identify all potential sources of contamination.....test required upon his or her review of the information submitted."
-

Response: Your comment is noted. An engineering report will not be prepared for this project because it is expanding an existing facility.

5. Comment: "All sources of public water system sources.....will take place to protect the source of drinking water."

Response: Your comment is noted.

6. Comment: "Projects proposing to develop new public water systems or proposing substantial.....Water Supply has been delegated to them."

Response: This project will not develop a new public water system or include substantial modifications to the existing public water system.

7. Comment: "All public water systems must be operated by a certified distribution system and water treatment plant operators as defined by Hawaii Administrative Rules, Title 11, Chapter 11-25 titled; Rules Pertaining to Certification of Public Water System Operators."

Response: DWS follows Hawaii Administrative Rules, Title 11, Chapter 11-25 titled; Rules Pertaining to Certification of Public Water System Operators.

8. Comment: "All projects which propose the use of dual water systems..... Title 11, Chapter 11-21 titled; Cross-Connection and Backflow Control is also required"

Response: This project does not propose the use of a dual water system or the use of a non-potable water system.

9. Comment: "All projects which propose the establishment of a potentially contaminating activity.....prevent or reduce the potential for contamination of the drinking water source."

Response: This project does not propose the establishment of a potentially contaminating activity.

10. Comment: "For further information concerning.....please contact the Safe Drinking Water Branch at 586-4258."

Response: Your comment is noted.

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11. Comment: "Injection wells used for subsurface disposal of wastewater.....A UIC permit must be issued before any injection well operation occurs."

Response: No injection wells will be used for subsurface disposal of wastewater, sewage effluent, or surface runoff.

12. Comment: "Authorization to use an injection well is granted.....Permit renewal is needed to keep an existing permit valid for another term."

Response: No injection wells will be used.

Thank you again for your comments. Should you have any questions, please feel free to contact Wendy Taomoto of our Engineering Division at (808) 270-7835.

Sincerely,

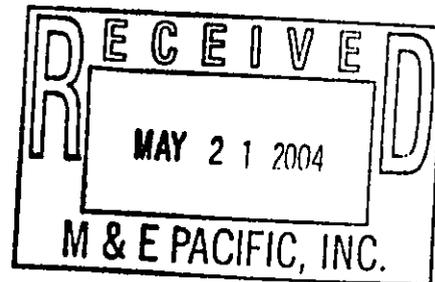


George Y. Tengan  
Director

cc: M&E Pacific, Inc.

May 17, 2004

Mr. Bruce Wade  
Project Manager  
M & E Pacific  
841 Bishop Street  
Suite 1900  
Honolulu, Hawai'i 96813



**Re: Significant Impacts To The Environment Resulting From Proposed Upgrades To The County Of Maui Department of Water Supply's 'Iao Water Treatment Facility**

Dear Mr. Wade,

This letter responds to your request for my comments regarding the draft environmental assessment (EA) for the County of Maui Department of Water Supply's (DWS') proposed upgrades to the 'Iao Water Treatment Facility (dated March 2004). I have serious concerns about the proposed upgrades due to their significant impacts to our natural and cultural resources. Unfortunately, your draft EA fails even to mention, let alone address, many significant, secondary, and cumulative impacts. I respectfully request that you address these inadequacies and provide the public with an opportunity to comment on them before a final EA is submitted.

My 'ohana has lived in 'Iao Valley since 1969, in close proximity to 'Iao stream. We own another 18 acres directly across the street from our home, which we have named Ho'oululahui. Our land starts approximately 1/4 of a mile below the Wailuku Agribusinesses intake (at the bridge over 'Iao stream at Kepaniwai park) and continues makai for 2/5 of a mile. As a result, about 2/5 of a mile of 'Iao stream flows right through Ho'oululahui. My 'ohana (including myself, my husband, son, daughter and one of my grandsons) is on Ho'oululahui each and every day, and we have intimate knowledge of the stream flow in 'Iao and how it changes during different times of the year. We are also familiar with the many water needs and uses in 'Iao.

'Iao stream is one of Na Wai Ehä, the four great streams of Maui. In pre-European contact times, Na Wai Ehä were famous for their wetland kalo and were one of the centers of population on Maui, due in no small part to the abundant production of kalo. See Handy & Handy, Native Planters in Old Hawai'i Their Life, Lore and Environment. 'Iao stream supported myriad instream uses, including native stream life and traditional and customary Native Hawaiian culture and practices. Unfortunately, as a result of diversions to subsidize sugar plantations and other offstream uses including DWS' water treatment facility, 'Iao stream is now completely dry on a regular basis. Despite

these diversions, the State Commission on Water Resource Management's 1990 Hawai'i Stream Assessment identified `Iao stream as one of only nine streams on Maui worthy of designation as a candidate stream for protection. `Iao was designated a Blue Ribbon Resource, meaning that it was selected as one of Hawai'i's very best recreational resources due to its outstanding hiking, fishing, swimming, parks, nature study, and scenic views. In light of this recognition of `Iao as a blue ribbon resource, your EA must consider the impact of continued diversions on the stream's important public trust uses and values. Unfortunately, your draft EA wholly failed to consider impacts to these resources. I respectfully request that you include such analysis immediately and re-release a draft EA before a final EA is completed.

The continued diversion of water from `Iao stream via the `Iao-Waikapu and Maniania ditches has a significant negative impact on native stream life, which requires a continuous flow of water from mauka to makai to survive. The dewatering of `Iao stream also negatively impacts many residents of the valley, who are unable to continue traditional and customary Native Hawaiian culture and practices, or sustain lo'i kalo or other agricultural, recreational, or other needs due to the lack of water. Moreover, people come from throughout Maui to swim in `Iao stream below Wailuku Agribusinesses' ditch intake. Residents of `Iao valley and elsewhere have suffered due to this chronic water shortage for too long now and have raised this issue with Wailuku Agribusiness, the State Water Commission, Maui County Council, and even the Honorable Mayor Alan Arakawa himself. Although Hawai'i has also been experiencing drought conditions, diversions for offstream and out of watershed uses have only further depleted the stream and negatively impacted nearshore marine waters by reducing if not eliminating one of the major sources of fresh water. At a minimum, your EA must consider both the individual and cumulative impacts of continuing to divert 2.4 to 3.6 million gallons of water from `Iao stream, including (1) impacts to `Iao's native stream life, (2) traditional and customary Native Hawaiian culture and practices (including wetland kalo cultivation and the use and native stream life such as hihiwai, `öpae, and `o`opu), (3) the recreational benefits from having an additional 2.4 to 3.6 mgd in the stream (especially the pool below the Wailuku Agribusinesses intake), as well as (4) impacts on the blue ribbon resources identified by the Hawai'i Stream Assessment.

Your EA claims that "no mitigative measures on stream withdrawal are required" because the amount of water redirected from `Iao stream will not be increased and Wailuku Agribusiness used this water in the past. EA at page 25. This makes no sense. Hawai'i's State Water Code, Hawai'i Revised Statutes ch. 174C, prohibits waste and requires the restoration of streams where practicable. Wailuku Agribusiness should, therefore, be using all of the water that it is diverting from `Iao or that water should be returned to the stream. Period. As stated earlier, `Iao stream is often dry below Wailuku Agribusinesses' intake; there is no 'extra' water. Either Wailuku Agribusiness is using the water that it is diverting from `Iao, or that water should be returned to the stream. If Wailuku Agribusiness is not using or proposes to stop using 2.4 to 3.6 mgd so that it can "sell" that water to DWS for its treatment plant, the impacts

of that change in use must also be considered. Analyzing the impacts of using 2.4 to 3.6 mgd that could and should be restored to the stream if it is not being used is critical to this EA and must be closely scrutinized. As detailed herein, the proposed use of an additional 2.4 mgd from `Iao stream will have a significant impact on the environment because it involves an irrevocable commitment of natural and cultural resources, curtails the range of beneficial uses of the environment, involves secondary impacts such as effects on water and other natural systems (including ecosystems), involves a substantial degradation of environmental quality, substantially affects rare native species and their habitat (including hihiwai, `öpae, and `o`opu), substantially affects scenic vistas and view planes as identified in the Hawai`i Stream Assessment and other state or county plans.

Your EA also lacks any analysis of the amount of water that Wailuku Agribusiness is currently diverting from `Iao and what the water is being used for, which is relevant to determine impacts to the stream. The EA must obtain and analyze this data to determine the significance of the impact that continued and potentially expanded diversions will have on `Iao. Wailuku Agribusiness is required to maintain an approved meter or gage on all stream diversions and is further required to file a report of total water usage on a regular monthly basis so Wailuku Agribusiness already has this information and obtaining it from them should be simple. Hawai`i Administrative Rules § 13-167-7.

Your EA also fails to mention the fact that the State Water Commission designated the `Iao aquifer a ground water management area in July 2003. Many sources have recognized that discharge from the dike-impounded waterbody maintains the perennial flow in `Iao stream. See e.g., United States Geological Survey's Water-Resources Investigations Report on the Response of the `Iao Aquifer to Ground-Water Development, Rainfall, and Land-Use Practices Between 1940 and 1998. In other words, `Iao stream is fed by and conveys dike impounded water. It is my understanding that Wailuku Agribusiness also maintains several tunnels that divert dike impounded ground water. Since "[n]o person shall make any withdrawal, diversion, impoundment or consumptive use of water in any designated water management area without first obtaining a permit from the Commission," DWS will have to secure a water use permit from the Commission if it uses either dike impounded water from the tunnels or water taken directly from the stream. If DWS is claiming that it will take water from `Iao stream only, the EA must make clear how and where the water that Wailuku Agribusiness diverts from its tunnels are diverted and used, to ensure that the dike impounded water is not co-mingled with the water taken directly from the stream. Please consider and address this issue in your revised EA.

I was also shocked to find that DWS planned to replace its 6-inch lines with one 24-inch line. In your revised EA please clarify whether only the 6-inch lines will be replaced or whether the new 24-inch line intends to replace the 12-inch and 6-inch lines. Moreover, I am unclear on why a 24-inch line is needed. A single five-inch line has the capacity to transport 3.168 mgd and a lone six-inch

line can convey 5.04 mgd. A single 24-inch line can transport 100.8 mgd. Based on these figures, a single 6-inch line can convey more than the entire capacity of the plant, not to mention the 2.4 mgd that your EA claims the plant will now use. We strongly suggest that you use a smaller size of pipe and, if not, explain why a 24-inch pipe is needed.

Finally, I strongly urge M & E to provide the Maui community with additional opportunities to comment on the draft EA. I only recently discovered that this draft was noticed in the bulletin for the Office of Environmental Quality Control. Unfortunately, many community members who have relevant information to share and who will be impacted by this proposal missed that bulletin and were thus unable to provide feedback on your draft document. Please provide a notice in the local paper, hold an informational meeting on Maui, and provide the public with another opportunity to comment before a final EA is submitted

I am hopeful that my concerns will be considered before the County makes a decision on whether the treatment facility can be upgraded without significant impacts to our environment. This is of particular concern to me because DWS has been making announcements for some time that the treatment facility in ʻĪao will be upgraded and this surface water will be used to supplement the ground water for the Central Maui Service Area. As you know, the whole purpose of an EA is to gather information on the proposed impacts of an action before a decision is made regarding whether that action will be taken.

Mahalo for this opportunity to comment. Please don't hesitate to contact me if you have any questions or require additional information.

Me ke aloha,



Rose Marie Duey

cc: Mayor Alan Arakawa, County of Maui  
Wayne Nishiki, Maui County Council  
Thelma Shimaoka, Office of Hawaiian Affairs  
D. Kapua Sproat Esq., Earthjustice

ALAN M. ARAKAWA  
Mayor



GEORGE Y. TENGAN  
Director

JEFFREY T. PEARSON, P.E.  
Deputy Director

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

June 25, 2004

Ms. Rose Marie Duey  
Alu Like, Inc.  
1977 Kaohu Street  
Wailukui, Hawaii 96793

Dear Ms. Duey:

**SUBJECT: Iao Water Treatment Facility Upgrades - Response to Draft EA**

Thank you for your comments to our Draft EA for the Subject Project. We reviewed your comments listed in your May 17, 2004 letter and would like to offer the following responses:

1. Comment, Paragraph 3: "Iao was designated a Blue Ribbon Resource.....your EA must consider the impact of continued diversions on the stream's important public trust uses and values."

Response: We acknowledge the importance of the Iao Stream on cultural resources. The proposed project will not alter current conditions of the stream. DWS and Wailuku Agribusiness entered into an agreement, which allows DWS to withdraw up to 3.2 million gallons per day from existing withdrawals to Iao-Waikapu Ditch. The proposed project does not increase withdrawal from Iao Stream. The water being withdrawn by DWS from Wailuku Agribusiness' Iao-Waikapu Ditch System is currently being utilized for agricultural purposes. Wailuku Agribusiness has agreed to reallocate some of the existing source in its Iao-Waikapu Ditch System to DWS for the purpose of easing the demand on the Iao Aquifer ground water resources.

2. Comment, Paragraph 4: "At a minimum, your EA must consider..... (4) Impacts on the blue ribbon resources identified by the Hawaii Stream Assessment."

Response: Since the diversion of water from Iao Stream is an existing condition, evaluating the individual and cumulative impacts of an existing diversion is beyond the scope of the project EA.

3. Comment, Paragraph 5: "Wailuku Agribusiness should, therefore, be using all of the water... .. or that water should be returned to the stream."

*"By Water All Things Find Life"*

Printed on recycled paper



June 25, 2004  
Ms. Rose Marie Duey  
Page 2

Response: As stated in the attached letter from Wailuku Agribusiness dated January 13, 2004, "... there is no surplus water at this time since all of the water is currently being utilized for agricultural purposes. Nonetheless, we are willing to reallocate some of the existing source to accommodate your request." We have also attached of a copy of the agreement between Wailuku Agribusiness and DWS titled "Agreement Concerning Withdrawal From the Iao/Waikapu Ditch" dated June 9, 2004.

4. Comment, Paragraph 6: "Your EA lacks any analysis of the amount of water that Wailuku Agribusiness is currently diverting.....which is relevant to determine impacts to the stream."

Response: As stated in the attached letter from Wailuku Agribusiness dated January 13, 2004, all water is being utilized for agricultural purposes. Analyzing Wailuku Agribusiness water usage is beyond the scope of the project EA.

5. Comment, Paragraph 7: "Your EA fails to mention the fact.....address this issue in your revised EA."

Response: As stated above, analyzing Wailuku Agribusiness water usage is beyond the scope of the project EA.

6. Comment, Paragraph 8: "In your revised EA please clarify whether only the 6-inch lines.....to replace the 12-inch and 6-inch lines."

Response: The 24-inch waterline will replace the five existing 6-inch waterlines. We are using 24-inch size pipe because we have a surplus of 24-inch ductile iron pipe. By utilizing existing stockpiles of materials the cost of construction will be reduced. The existing 12-inch waterline will remain in service.

7. Comment, Paragraph 9: "Please provide a notice in the local paper.....before a final EA is submitted."

Response: We feel the process we have chosen is adequate, the project was noticed in the Office of Environmental Quality Control's *OEQC bulletin*. A copy of the Draft EA is available and a copy of the Final EA will be made available at the Wailuku Library.

Thank you again for your comments. Should you have any questions, please feel free to contact Wendy Taomoto of our Engineering Division at (808) 270-7835.

Sincerely,

  
George Y. Tengan  
Director

cc: M&E Pacific, Inc.  
Attachments

---

LINDA LINGLE  
GOVERNOR OF HAWAII

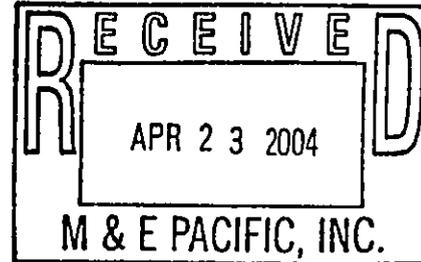


GENEVIEVE SALMONSON  
DIRECTOR

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET  
SUITE 702  
HONOLULU, HAWAII 96813  
TELEPHONE (808) 586-4185  
FACSIMILE (808) 586-4186  
E-mail: [oeqc@health.state.hi.us](mailto:oeqc@health.state.hi.us)

**FILE COPY**



April 21, 2004

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

Dear Mr. Tengan:

Subject: Draft Environmental Assessment for the a Iao Water Treatment Facility, Maui

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

1. Please evaluate the impact of withdrawing Iao Stream water on cultural resources.
2. Please list the state and county permits that would be required for this project.
3. Please consult with the Department of Health (Environmental Planning Office & Safe Drinking Water Branch), Department of Land and Natural Resources (Commission on Water Resources Management & Aquatic Resources Division), Wailuku Agribusiness, and affected individuals.

Sincerely,

A handwritten signature in cursive script that reads "Genevieve Salmonson".  
Genevieve Salmonson  
Director

c: M & E Pacific.

ALAN M. ARAKAWA  
Mayor



GEORGE Y. TENGAN  
Director

JEFFREY T. PEARSON, P.E.  
Deputy Director

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

May 19, 2004

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

Dear Mr. Salmonson:

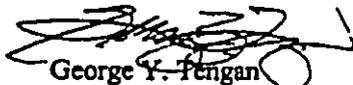
**SUBJECT: Iao Water Treatment Facility Upgrades - Response to Draft EA Pre-consultation letter**

Thank you for your review and comments to our Draft EA for the subject project. The Department of Water Supply reviewed your comments listed in your April 21, 2004 letter and would like to offer the following responses:

1. **Comment:** "Please evaluate the impact of withdrawing Iao Steam water on cultural resources."  
**Response:** Since the proposed increase in withdrawal from the Iao-Waikapu Ditch, at the existing intake, does not withdraw additional water from the Iao Stream, we do not anticipate any impact on cultural resources. The additional withdrawal from the ditch is an existing draw already being taken by Wailuku Agribusiness.
2. **Comment:** "Please list the state and county permits that would be required for this project."  
**Response:** Permit section will be rewritten to show Project District Phase III approval is needed from County of Maui Department of Planning.
3. **Comment:** "Please consult with the Department of Health (Environmental Planning Office & Safe Drinking Water Branch), Department of Land and Natural Resources (Commission on Water Resources Management & Aquatic Resources Division), Wailuku Agribusiness, and affected individuals."  
**Response:** We will consult with the agencies and companies listed.

Thank you again for your comments. Should you have any questions, please call me at (808)270-7816.

Sincerely,

  
George Y. Tengan  
Director

cc: M&E Pacific, Inc. *"By Water All Things Find Life"*

MAY 20 2004

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LINDA LINGLE  
GOVERNOR OF HAWAII



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

RECEIVED

2004 APR 23 AM 10:30

STATE OF HAWAII  
DEPT. OF WATER SUPPLY DEPARTMENT OF HEALTH  
COUNTY OF MAUI P.O. BOX 3378  
HONOLULU, HAWAII 96801-3378

In reply, please refer to:  
END/SOWB

April 19, 2004

Mr. George Tengan, Director  
Department of Water Supply  
County of Maui  
200 South High Street  
Wailuku, Hawaii 96793-2155

Dear Mr. Tengan:

SUBJECT: PUBLIC WATER SYSTEM NO. 212, DWS WAILUKU  
IAO WATER TREATMENT FACILITY UPGRADE  
DRAFT ENVIRONMENTAL ASSESSMENT, DATED MARCH 2004

The Department of Health has reviewed the draft Environmental Assessment (DEA) document and offers the following comments:

1. The requirements of our September 28, 2001, letter to the Maui County Department of Water Supply (DWS) granting conditional approval to operate the Iao Water Treatment Facility (WTF) will also apply to all plant upgrades, as applicable.
2. We have concerns regarding the impact of this WTF flow increase on the regulatory compliance status of the existing 3 MG concrete storage tank. Revised "CT calculations" showing the updated flow contributions from the different sources (WTF, Iao Stream, Iao Tunnel, Wailuku Shaft, Kepaniwai Well) should be submitted to the Safe Drinking Water Branch (SDWB) before the upgraded plant is put into service.
3. The DEA states incorrectly that the proposed upgrade increases the plant's current capacity of 1.2 million gallons per day (mgd) to 3.6 mgd. The WTF's two existing membrane units have a combined capacity of approximately 2.4 mgd. However, the plant's operating capacity is based on one unit running with one unit as a backup. The operating capacity of the existing plant is therefore approximately 1.2 mgd. Should a third unit be added, the plant's combined capacity would be approximately 3.6 mgd, but again, its operating capacity would be 2.4 mgd, based on

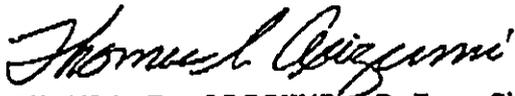
Mr. George Tengan  
April 19, 2004  
Page 2

two units running and one as a backup. The DEA's stated increase should therefore be from 1.2 mgd to 2.4 mgd.

4. The upgraded plant must continue to operate at a flux rate no higher than 0.666 gpm/squ meter. Non-compliance with this condition may result in the revocation of the source approval.
5. Finally, although the proposed upgrade utilizes an already approved Surface Water Treatment Rule technology, we reserve the right to review construction plans for changes that we feel generate significant regulatory compliance or public health issues.

If you have any questions, please call Mr. Michael Miyahira of the Safe Drinking Water Branch, Engineering Section at 586-4258.

Sincerely,



THOMAS E. ARIZUMI, P.E., Chief  
Environmental Management Division

MM:cb

c: Gordon Muraoka, Maui SDWB Sanitarian

ALAN M. ARAKAWA  
Mayor



GEORGE Y. TENGAN  
Director

JEFFREY T. PEARSON, P.E.  
Deputy Director

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

May 19, 2004

Mr. Thomas E. Arizumi, Chief  
Environmental Management Division  
Department of Health  
State of Hawaii  
P.O. Box 3378  
Honolulu, Hawaii 96801-3378

Dear Mr. Arizumi:

**SUBJECT: Iao Water Treatment Facility Upgrades - Response to Draft EA**

Thank you for your review and comments to our Draft EA for the subject project. The Department of Water Supply has reviewed your comments listed in your April 19, 2004 letter and would like to offer the following responses:

1. **Comment:** "The requirements of our September 28, 2001, letter to the Maui Department of Water Supply (DWS) granting conditional approval to operate the Iao Water Treatment Facility (WTF) will also apply to all plant upgrades, as applicable."  
**Response:** Comment noted, not an issue.
2. **Comment:** "We have concerns regarding the impact....before the upgraded plant is put into service"  
**Response:** The ct calculation will be submitted to DOH for review and approval before the upgraded plant is put into service.
3. **Comment:** "The DEA states incorrectly that the proposed upgrade increases the plant's current capacity of 1.2 million gallons per day (mgd) to 3.6 mgd ."  
**Response:** Operating capacity will be changed to 2.4 mgd.

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MAY 20 2004

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May 19, 2004  
Mr. Thomas Arisumi  
Page 2

4. Comment: "The upgraded plant must continue to operate at a flux rate no higher than 0.666 gpm/squ meter. Non-compliance with condition may result in the revocation of the source approval."

Response: We concur; the upgraded plant will operate at a flux rate of 0.666 gpm/squ meter.

5. Comment: "Finally, although the proposed upgrade utilizes an already approved Surface Water Treatment Rule technology, we reserve the right to review construction plans for changes that we feel generate significant regulatory compliance or public health issues."

Response: This will be part of the review of engineering report submitted to DOH required to operate the facility. Please note that we should put the administration on notice if there is going to be a lengthy time for review by the DOH staff that would result in a delay of the plant start up.

Thank you again for your comments. Should you have any questions, please call me at (808)270-7816.

Sincerely,

  
George Y. Tengan  
Director

cc: M&E Pacific, Inc.

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

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

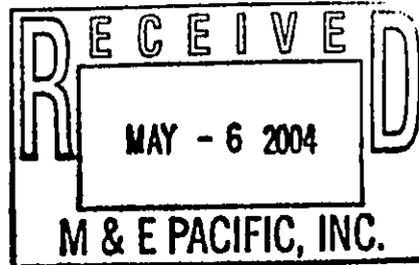
DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

ERNEST Y.W. LAU  
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

April 12, 2004

Bruce Wade  
M & E Pacific  
841 Bishop Street, Suite 1900  
Honolulu, Hawaii 968134



LOG NO: 2004.1120  
DOC NO: 0404CD21

Dear Mr. Wade,

**SUBJECT: Chapter 6E-42 Historic Preservation Review – Information Request for the Proposed Iao Water Treatment Facility Upgrades  
Wailuku Ahupua`a, Wailuku District, Island of Maui  
TMK: (2) 3-5-001:021 and 001**

Thank you for the opportunity to provide comments on the Information Request for the Proposed Iao Water Treatment Facility Upgrades, which was received by our staff March 4, 2004. Unfortunately we are unable to respond to your information request at this time as the proposed improvements and their location on the subject parcels are not described in the submitted document. When we receive this information, we anticipate being able to respond to your request.

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

Aloha,

*P. Holly McEldowney*

P. Holly McEldowney, Administrator  
Historic Preservation Division

CD:jen

c: Michael Foley, Director, Dept of Planning, 250 South High Street, Wailuku, HI 96793  
Cultural Resources Commission, Planning Dept, 250 S. High Street, Wailuku, HI 96793



841 Bishop Street, Suite 1900  
Honolulu, HI 96813

Tel: 808-521-3051  
Fax: 808-524-0246  
www.m-e.com

May 7, 2004

State of Hawaii, Department of Land and Natural Resources  
Historic Preservation Division  
601 Kamokila Boulevard  
Kapolei, Hawaii 96707

Attn: P. Holly McEldowney, Administrator

Subject: **Response to Comments** for Historic Preservation Review of Previous Site  
Investigation for Proposed Iao Water Treatment Facility Upgrades. TMK:3-5-  
01:021 & 001

Dear Ms McEldowney:

In response to your letter dated April 12, 2004 please find the attached documents to clarify the proposed improvements to the Iao Water Treatment Facility and their location on the subject parcels.

Maui Department of Water Supply would like to submit the Environmental Assessment to the Office of Environmental Quality Control by May 27, 2004. If possible, it would be greatly appreciated if we received your comments before then.

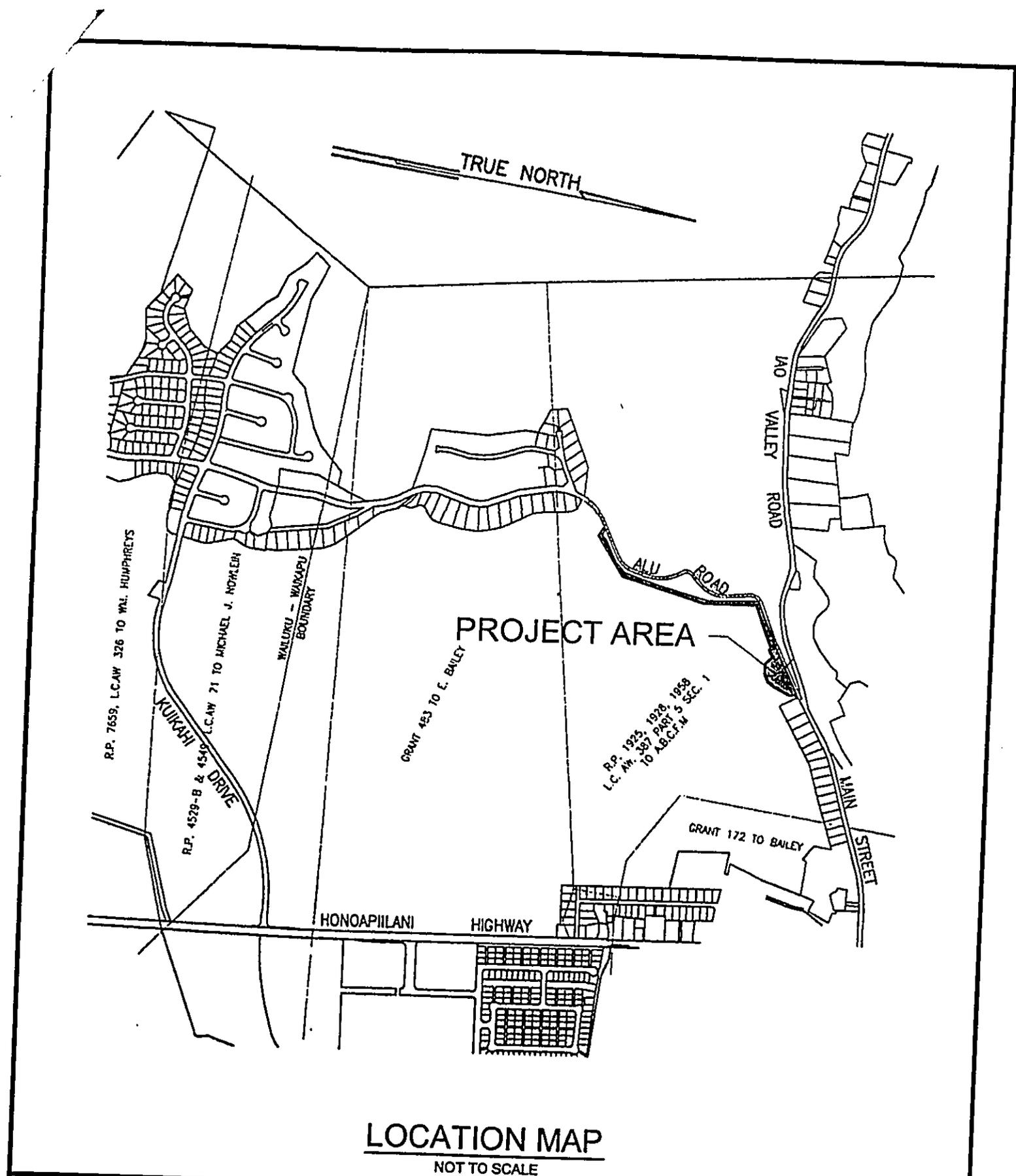
Should you have any further questions or comments please contact me at 521-3051. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Bruce Wade', is written over a horizontal line.

Bruce Wade  
Project Manager

Cc: File  
Wendy Taumoto



**LOCATION MAP**  
NOT TO SCALE

 <p>Davies Pacific Center 841 Bishop Street Suite 1900 Honolulu, Hawaii 96813</p>	<p>IAO WTF - UPGRADE ENVIRONMENTAL ASSESSMENT MAUI - DEPARTMENT OF WATER SUPPLY</p>	<p>FIGURE 2 LOCATION MAP March 2004</p>
--	---	---

District: Wailuku  
TMK Designation: 2<sup>nd</sup> Tax Division 3-5-01: parcels 021 and 001  
Applicant: Maui County Department of Water Supply  
200 South High Street – Fifth Floor  
Wailuku, County of Maui, Hawaii 96793  
Contact: Ms Wendy Taomoto, Project Engineer  
Phone: (808) 270-7835 Fax: (808) 270-7833

Approving Agency: Same as above

Consultant: M&E Pacific, Inc.  
841 Bishop Street, Suite 1900  
Davies Pacific Center  
Honolulu, HI 96813  
Contact: Mr. Bruce Wade, P.E.  
Phone: (808) 521-3051 Fax: (808) 524-0246

Project Summary:

**PROJECT NEED AND OBJECTIVE**

The Central Maui Water System is the Maui Department of Water Supply's (DWS) largest drinking water system. It services the major population centers of Maui which are currently experiencing rapid growth and increased water demand. The system provides water to the following communities; Wailuku, Waihee, Waikapu, Wailuku Heights, Kahului, Puunene, Kihei, Maalaea, Makena, Paia-Kuau and Spreckelsville. As of June 30, 2003, there are 17,070 water meters servicing Central Maui Customers. The current capacity of the Central Maui Water System is incapable of delivering the increasing demand of water.

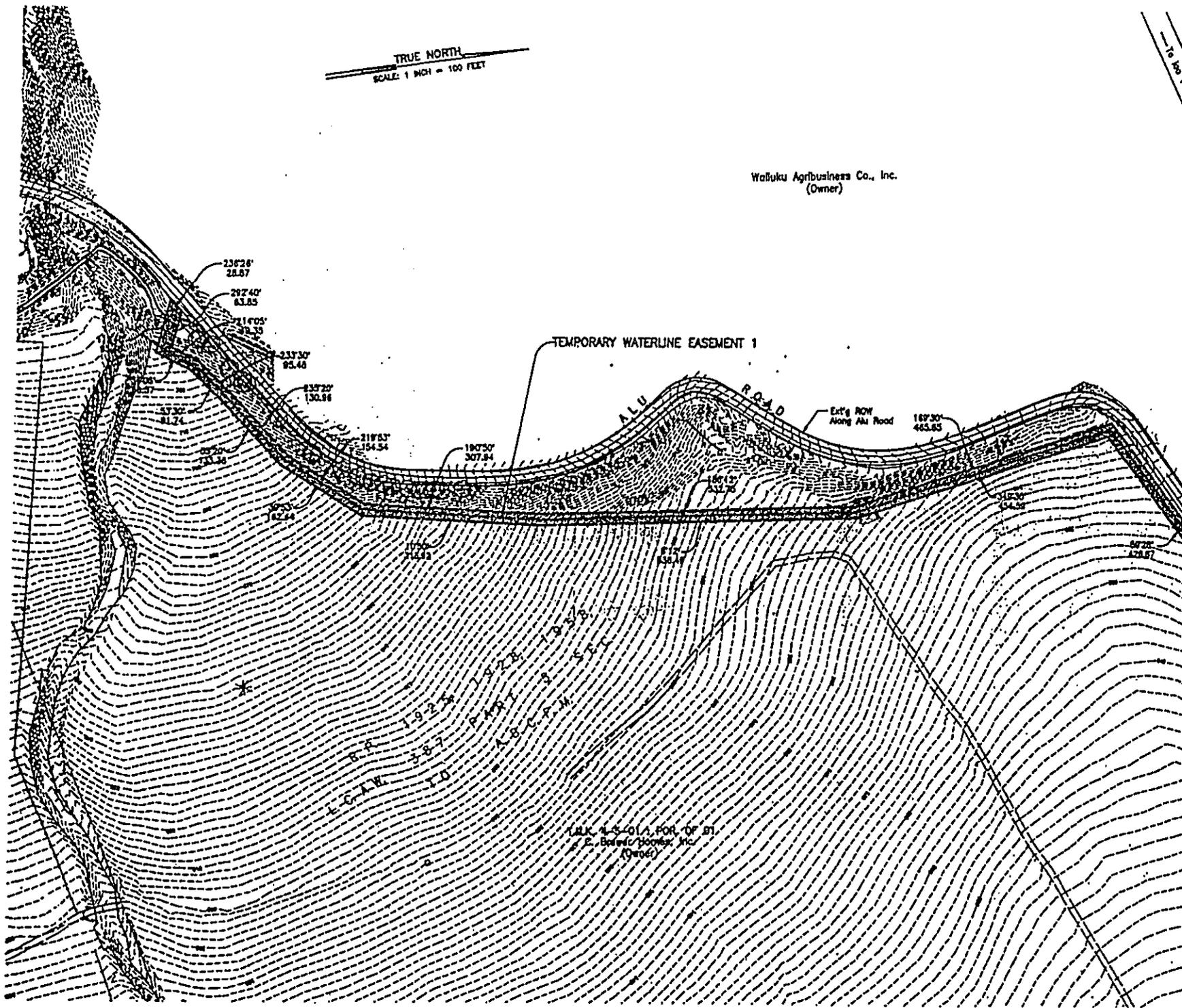
The objective of this project is to provide a fast solution to the Central Maui water shortages while providing quality drinking water to its customers. These upgrades will allow the Maui DWS to readily meet existing demand. The proposed project establishes a rapid solution to these projected water usage demands and does not require additional pumping of water from the Iao Aquifer System or require the acquisition of additional lands. This Environmental Assessment (EA) discusses possible environmental impacts to the existing site and planned mitigative strategies at the Iao Water Treatment Facility (WTF).

**PROJECT OVERVIEW AND DESCRIPTION**

The proposed upgrades to the existing Iao WTF utilize the existing infrastructure of the facility. The Maui DWS plans to increase the current capacity of the facility of 1.2 million gallons per day (MGD) to 3.6 MGD. This will be accomplished by minor modifications to the intake structure at the Iao Waikapu Ditch to allow more water into the treatment system, see Figure 5. To accommodate the additional flow from the modified intake structure approximately 2000' of 6" lines will be replaced with one (1) new 24" line. One (1) new pre-fabricated microfiltration module will be added to the treatment facility. This new unit will require only the placement of a concrete slab (approximately 15'x18') to support it. All work for the addition of this unit will take place inside the housing of the existing treatment facility and will require no additional site work.

TRUE NORTH  
SCALE: 1 INCH = 100 FEET

Waipuku Agrbusiness Co., Inc.  
(Owner)



**NOTES:**

1. ALL AZIMUTHS AND RECORD COORDINATES, REFERS TO GOVERNMENT SURVEY TRIANGULATION STATION "LUKE"
2. OWNERS OF ADJOINING LANDS, AS SHOWN ON PLAN, TAKEN FROM RECORDS IN THE REAL PROPERTY MAPPING BRANCH.
3. TEMPORARY EASEMENT 1, IS FOR WATERLINE PURPOSE, TO BE IN FAVOR OF THE BOARD OF WATER SUPPLY, COUNTY OF MAUI.

**INSET**  
SCALE: 1 INCH = 100 FEET

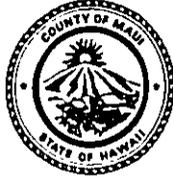
T.M.K.: (2) 3-5-01 : PORTION OF 01



ALAN M. ARAKAWA  
Mayor

MICHAEL W. FOLEY  
Director

WAYNE A. BOTEILHO  
Deputy Director



**FILE COPY**

036206746-

COUNTY OF MAUI  
**DEPARTMENT OF PLANNING**

April 7, 2004

Mr. Bruce Wade  
M&E Pacific, Inc.  
841 Bishop Street, Suite 1900  
Honolulu, HI 96813

Dear Mr. Wade:

RE: Pre-consultation Comments on the Draft Environmental Assessment prepared for the Proposed Iao Water Treatment Facility Upgrades located at TMK: 3-5-001: 021 and 001, Wailuku, Island of Maui, Hawaii (LTR 2004/1007)

The Maui Planning Department (Department) has received the above referenced request and provides the following comments:

1. The land use designations for the properties are as follows:
  - a. TMK: 3-5-001: 021
    - i. State Land Use - Agriculture
    - ii. Wailuku-Kahului Community Plan - Agriculture
    - iii. County Zoning - Agriculture
  - b. TMK: 3-5-001: 001
    - i. State Land Use - Urban
    - ii. Wailuku-Kahului Community Plan - Project District 3
    - iii. County Zoning - Project District 3

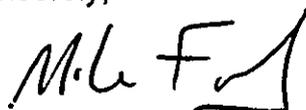
Provide a discussion as to the consistency with the above referenced designations.

2. Please be advised that any activity located within the boundaries of TMK: 3-5-001: 001 will require Project District Phase III approval from the Department.

Mr. Bruce Wade  
April 7, 2004  
Page 2

Thank you for the opportunity to comment. Should you require additional clarification, please contact Ms. Kivette A. Caigoy, Environmental Planner, at 270-7735.

Sincerely,



Michael W. Foley  
Planning Director

MWF:KAC:do

c: Wayne Boteilho, Deputy Planning Director  
Kivette A. Caigoy, Environmental Planner  
Ann Cua, Staff Planner  
General File

K:\WP\_DOCS\PLANNING\LETTERS\tr2004\1007\_laoWaterTrtmtUpgradeDEA.wpd

ALAN M. ARAKAWA  
Mayor



GEORGE Y. TENGAN  
Director

JEFFREY T. PEARSON, P.E.  
Deputy Director

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

May 19, 2004

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

Dear Mr. Foley:

**SUBJECT: Iao Water Treatment Facility Upgrades - Response to Draft EA Pre-consultation letter**

Thank you for your review and comments to our Draft EA for the Subject Project. The Department of Water Supply reviewed your comments listed in your April 21, 2004 letter and would like to offer the following responses:

1. **Comment:** "The land Use designations are as follows...Provide a discussion as to the consistency with the above referenced designations"  
**Response:** Land use designations will be updated to reflect your determinations. For discussion on designations refer to Section 5.4 of the Final Environmental Assessment.
2. **Comment:** "Please be advised that any activity located within the boundaries of TMK: 3-5-001:001 will require Project District Phase III approval from the department."  
**Response:** Your comment is noted and the Permit section will be rewritten to show Project District Phase III approval will be obtained from County of Maui's Department of Planning.

Thank you again for your comments. Should you have any questions, please call me at (808)270-7816.

Sincerely,

  
George Y. Tengan  
Director

cc: M&E Pacific, Inc. *"By Water All Things Find Life"*

MAY 20 2004

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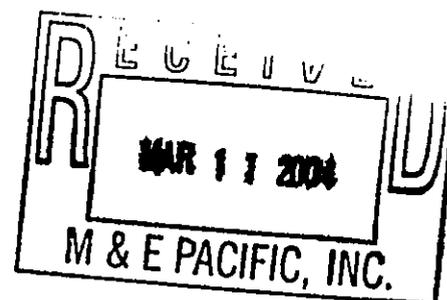


**FILE COPY**

036206746-

**Office of Hawaii Affairs**

140 Hooehana Street, Suite 208  
Kahului, Hawaii 96732



March 9, 2004

M & E Pacific, Inc.  
841 Bishop Street, Suite 1900  
Honolulu, HI 96813

Re: Response to Proposed Iao Water Treatment Facility Upgrade. TMK: 3-5-01:021 & 001

Dear Mr. Wade:

The Maui Office of Hawaiian Affairs is in receipt of your correspondence dated March 5, 2004 in reference to the above mentioned.

I would like to respond that the person to contact on this matter would be Mrs. Rosemary Duey, who is the Island Representative of Maui Alu Like and also a well known Native Hawaiian Advocate. She also lives within that vicinity of Wailuku and knows the community at great length. You may reach her at Alu Like, Inc. 1977 Kaohu Street, Waikuku, HI 96793, telephone number 242-9774.

Aloha Pumehana,

A handwritten signature in black ink, appearing to read "Thelma M. Shimaoka".

Thelma M. Shimaoka  
Community Resource Coordinator  
Maui Island

Cc: Mr. Ron Mun, Dep. Administrator



## Transmittal

---

**TO:** Office of Hawaiian Affairs  
140 Hooehana Street, Suite 206  
Kahului, HI 96732

**FROM:** Thomas Joachimides

**ATTN:** Thelma M. Shimaoka

**DATE:** April 14, 2004

**RE:** Iao WTF - Upgrades, Environmental Assessment (Draft)

**WE ARE SENDING YOU:**

ATTACHED

UNDER SEPARATE COVER VIA

SHOP DRAWINGS

DOCUMENTS

TRACINGS

PRINTS

SPECIFICATIONS

CATALOGS

COPY OF LETTER

OTHER:

QUANTITY	DESCRIPTION
1 copy	Letter to Mrs. Rosemary Duey

**IF MATERIAL RECEIVED IS NOT AS LISTED, PLEASE NOTIFY US AT ONCE**

**Thelma M. Shimaoka:**

Transmitting 1 copy of letter sent to Mrs. Rosemary Duey as requested by your office. If you have any questions or concerns, please call me at 521-3051. Thank you.

**Thomas Joachimides**

**COPY TO:** file  
Wendy Taomoto (DWS)

---

841 Bishop Street  
Suite 1900, Davies Pacific Center  
Honolulu, HI 96813  
Voice: 529-7235

Fax: 524-0246



April 2, 2004

Mrs. Rosemary Duey  
Alu Like, Inc.  
1977 Kaohu Street  
Wailukui, Hawaii 96793

Attn: Mrs. Rosemary Duey

Subject: Review of Proposed Iao Water Treatment Facility Upgrades. TMK:3-5-01:021 & 001

Dear Mrs. Duey:

We have been contracted by the Maui Department of Water Supply to write an Environmental Assessment (EA) for planned upgrades to the existing Iao Water Treatment Facility and intake pipeline. The project consists of minor upgrades to the existing Iao Water Treatment Facility (WTF) to allow for an increased production of potable water from 1.2 MGD to 2.4 MGD. Actions proposed are as follows; modification to intake structure, replacement of approximately 2000' of 6" waterlines with one 24" waterline, and the addition of one new microfiltration unit.

We were referred to you by Thelma M. Shimaoka of the Office of Hawaiian Affairs (OHA) and are seeking your consultation on this project to identify potential negative effects on Native Hawaiian peoples or practices you may be aware of. Please provide any information on potential impacts this project may have. Please find attached to this letter, a copy of the letter received by our office from the OHA, the project description and site maps.

Should you have any further questions or comments please contact me at 521-3051. Thank you.

Sincerely,

Bruce Wade  
Project Manager

Cc: File  
Wendy Taumoto  
Office of Hawaiian Affairs

AN AECOM COMPANY

**FILE COPY**

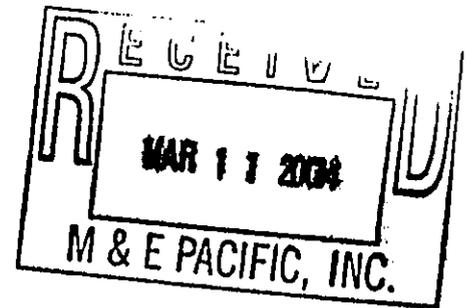
841 Bishop Street, Suite 1900  
Honolulu, HI 96813

Tel: 808-521-3051  
Fax: 808-524-0246  
www.m-e.com

**FILE COPY**

**Office of Hawaii Affairs**

140 Hooehana Street, Suite 208  
Kahului, Hawaii 96732



March 9, 2004

M & E Pacific, Inc.  
841 Bishop Street, Suite 1900  
Honolulu, HI 96813

Re: Response to Proposed Iao Water Treatment Facility Upgrade. TMK: 3-5-01:021 & 001

Dear Mr. Wade:

The Maui Office of Hawaiian Affairs is in receipt of your correspondence dated March 5, 2004 in reference to the above mentioned.

I would like to respond that the person to contact on this matter would be Mrs. Rosemary Duey, who is the Island Representative of Maui Alu Like and also a well known Native Hawaiian Advocate. She also lives within that vicinity of Waialuku and knows the community at great length. You may reach her at Alu Like, Inc. 1977 Kaohu Street, Waikuku, HI 96793, telephone number 242-9774.

Aloha Pūmehana,

A handwritten signature in black ink, appearing to read "Thelma M. Shimaoka". The signature is fluid and cursive.

Thelma M. Shimaoka  
Community Resource Coordinator  
Maui Island

Cc: Mr. Ron Mun, Dep. Administrator

District: Waituku  
TMK Designation: 2<sup>nd</sup> Tax Division 3-5-01: parcels 021 and 001  
Applicant: Maui County Department of Water Supply  
200 South High Street – Fifth Floor  
Waituku, County of Maui, Hawaii 96793  
Contact: Ms Wendy Taomoto, Project Engineer  
Phone: (808) 270-7835 Fax: (808) 270-7833

Approving Agency: Same as above

Consultant: M&E Pacific, Inc.  
841 Bishop Street, Suite 1900  
Davies Pacific Center  
Honolulu, HI 96813  
Contact: Mr. Bruce Wade, P.E.  
Phone: (808) 521-3051 Fax: (808) 524-0246

Project Summary:

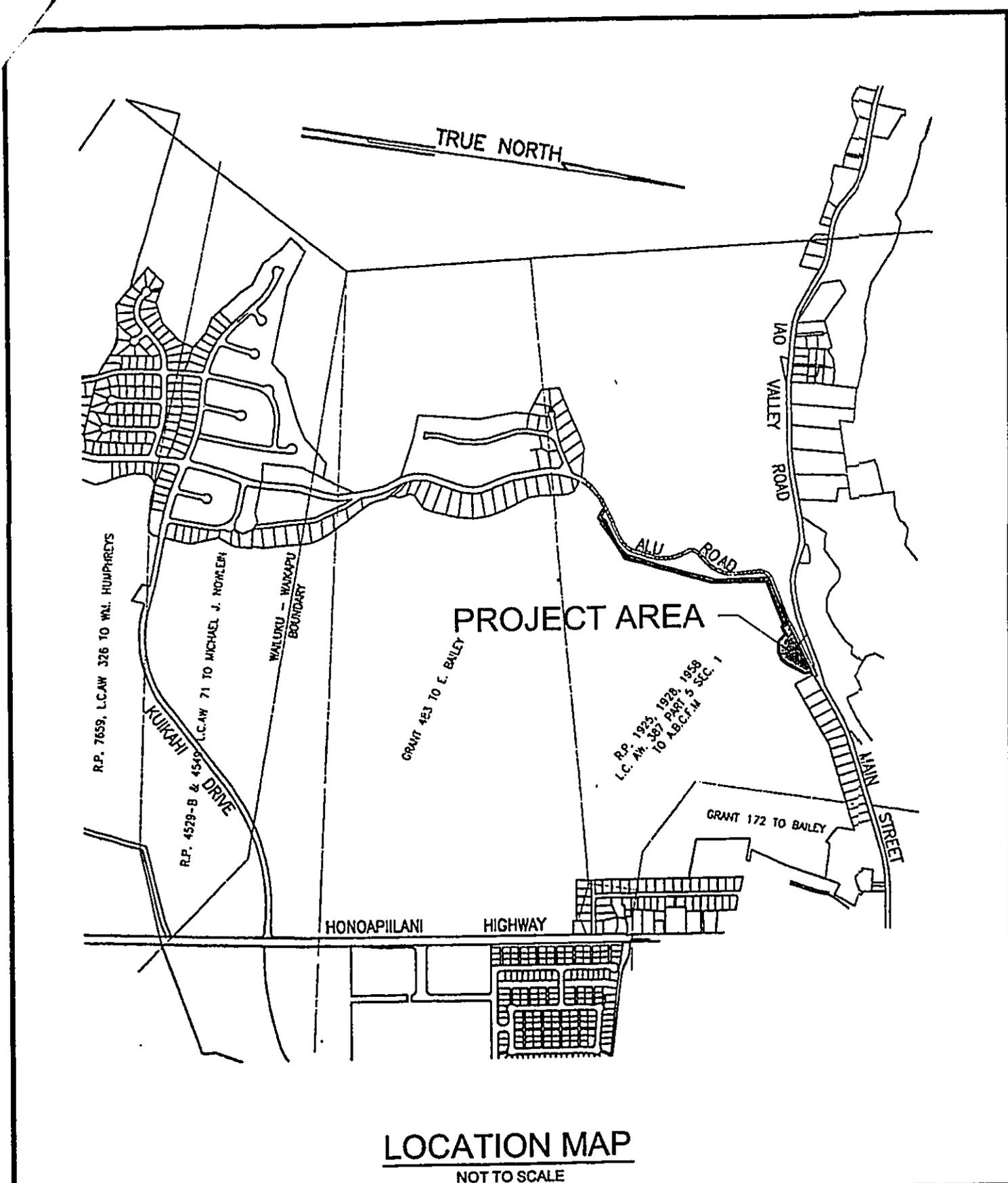
**PROJECT NEED AND OBJECTIVE**

The Central Maui Water System is the Maui Department of Water Supply's (DWS) largest drinking water system. It services the major population centers of Maui which are currently experiencing rapid growth and increased water demand. The system provides water to the following communities; Waituku, Waihee, Waikapu, Waituku Heights, Kahului, Puunene, Kihei, Maalaea, Makena, Paia-Kuau and Spreckelsville. As of June 30, 2003, there are 17,070 water meters servicing Central Maui Customers. The current capacity of the Central Maui Water System is incapable of delivering the increasing demand of water.

The objective of this project is to provide a fast solution to the Central Maui water shortages while providing quality drinking water to its customers. These upgrades will allow the Maui DWS to readily meet existing demand. The proposed project establishes a rapid solution to these projected water usage demands and does not require additional pumping of water from the Iao Aquifer System or require the acquisition of additional lands. This Environmental Assessment (EA) discusses possible environmental impacts to the existing site and planned mitigative strategies at the Iao Water Treatment Facility (WTF).

**PROJECT OVERVIEW AND DESCRIPTION**

The proposed upgrades to the existing Iao WTF utilize the existing infrastructure of the facility. The Maui DWS plans to increase the current capacity of the facility of 1.2 million gallons per day (MGD) to 3.6 MGD. This will be accomplished by minor modifications to the intake structure at the Iao Waikapu Ditch to allow more water into the treatment system, see Figure 5. To accommodate the additional flow from the modified intake structure approximately 2000' of 6" lines will be replaced with one (1) new 24" line. One (1) new pre-fabricated microfiltration module will be added to the treatment facility. This new unit will require only the placement of a concrete slab (approximately 15'x18') to support it. All work for the addition of this unit will take place inside the housing of the existing treatment facility and will require no additional site work.



**LOCATION MAP**  
NOT TO SCALE

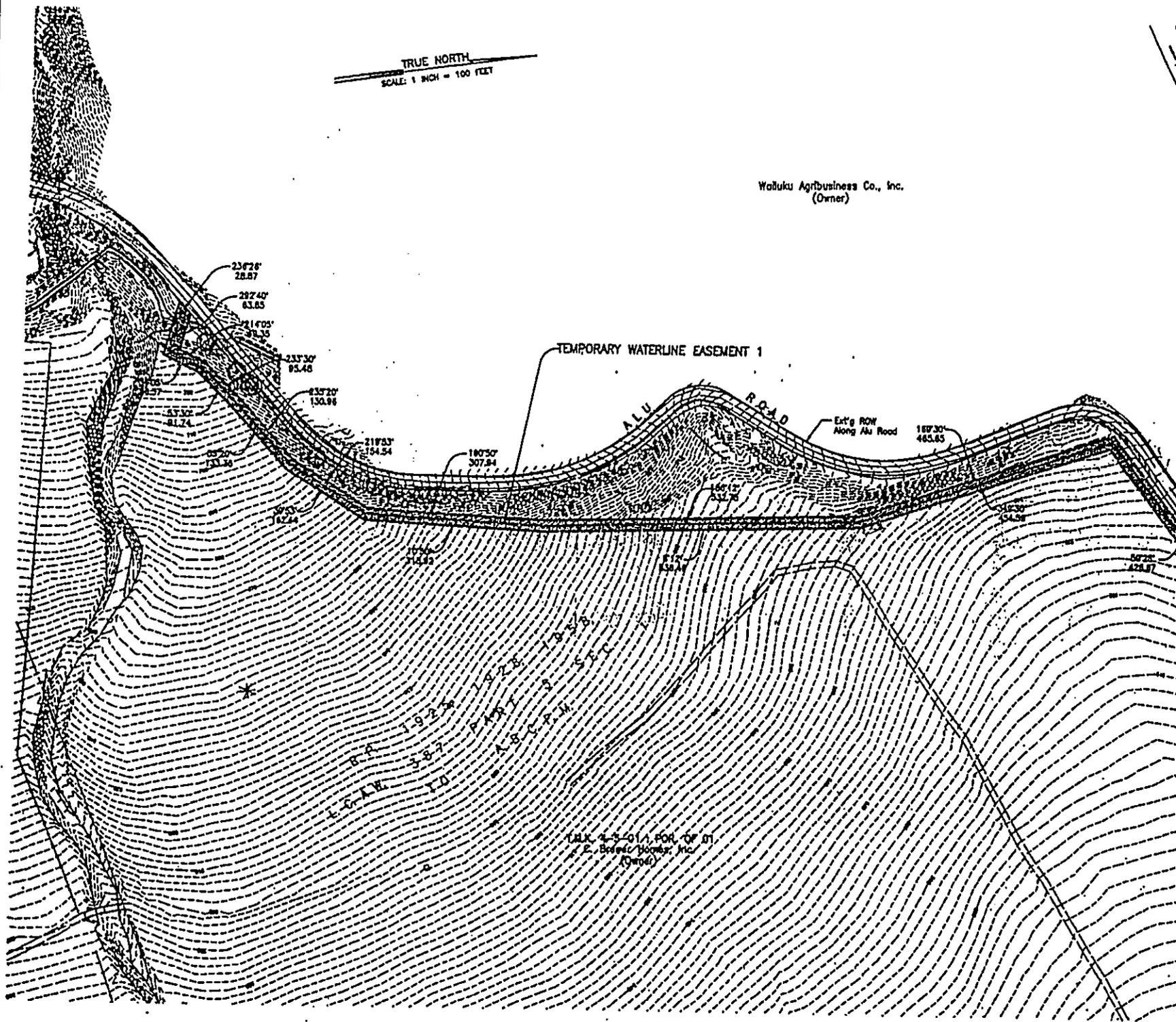
**M&E Pacific, Inc.**  
Davies Pacific Center  
841 Bishop Street  
Suite 1900  
Honolulu, Hawaii 96813

**IAO WTF - UPGRADE  
ENVIRONMENTAL ASSESSMENT**  
MAUI - DEPARTMENT OF WATER SUPPLY

**FIGURE 2  
LOCATION MAP  
March 2004**

TRUE NORTH  
SCALE: 1 INCH = 100 FEET

Wabuku Agribusiness Co., Inc.  
(Owner)



**NOTES:**

1. ALL AZIMUTHS AND RECORD COORDINATES, REFERS TO GOVERNMENT SURVEY TRIANGULATION STATION "LINE"
2. OWNERS OF ADJOINING LANDS, AS SHOWN ON PLAN, TAKEN FROM RECORDS IN THE REAL PROPERTY MAPPING BRANCH.
3. TEMPORARY EASEMENT 1, IS FOR WATERLINE PURPOSE, TO BE IN FAVOR OF THE BOARD OF WATER SUPPLY, COUNTY OF MAUI.

**INSET**  
SCALE: 1 INCH = 100 FEET

T.M.K.: (2) 3-5-01 : PORTION OF 01

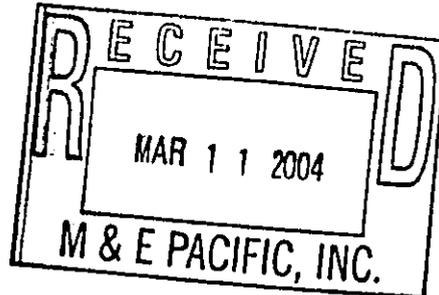


FILE COPY

0362 06746-

**FORESTRY & WILDLIFE - MAUI**  
**54 S. High Street, Room 101**  
**Wailuku, HI 96793**  
**(808) 873-3502, fax 873-3505**

# Memo



**To:** Bruce Wade, Project Manager

M&E Pacific, Inc.  
341 Bishop Street, St. 1900  
Honolulu, HI 96813

**From:** Dr. Fern P. Duvall II  
Wildlife Biologist

A handwritten signature in black ink, appearing to read "Dr. Fern P. Duvall II".

**Date:** March 8, 2004

**Re:** Floral and Faunal Survey for Proposed Iao Water Treatment Facility Upgrades,  
TMK: 3-5-01:021 & 001.

---

Mr. Bruce Wade:

In response to your letter of 1 March 2004, we have no new response to our May 21, 1996 findings for the site in question. The proposed project will not negatively impact native or protected Hawaiian species.

My contacts, if there are any questions or comments: (808) 873-3502, Fax (808) 873-3505.

Mahalo and Aloha!

---

ALAN M. ARAKAWA  
Mayor



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

GEORGE Y. TENGAN  
Director

JEFFREY T. PEARSON, P.E.  
Deputy Director

May 19, 2004

Dr. Fern R. Duval, Wildlife Biologist  
Division of Forestry and Wildlife  
State Department of Land and Natural Resources  
54 South High Street, Room 101  
Wailuku, Hawaii 96793

Dear Dr. Duval:

**SUBJECT: Iao Water Treatment Facility Upgrades - Response to Draft EA Pre-consultation letter**

Thank you for your review and comments to draft environmental assessment pre-consultation letter for the subject project. The Department of Water Supply acknowledges your comment of "The proposed project will not negatively impact native or protected Hawaiian species." listed in your March 8, 2004 letter.

Thank you again for your comments. Should you have any questions, please call me at (808)270-7816.

Sincerely,

  
George Y. Tengan  
Director

cc: M&E Pacific, Inc.

*"By Water All Things Find Life"*

MAY 21 2004

Printed on recycled paper 

**APPENDIX D**

**MAUI DWS/WAILUKU AGRIBUSINESS AGREEMENT**

**COPY**

**AGREEMENT CONCERNING WITHDRAWAL FROM THE IAO/WAIKAPU DITCH**

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AGREEMENT CONCERNING WITHDRAWAL  
FROM THE IAO/WAIKAPU DITCH

THIS AGREEMENT, made and entered into this 9<sup>th</sup> day of June, 2004, by and among WAILUKU AGRIBUSINESS CO., INC., a Hawaii Corporation, whose mailing address is 255 East Waiko Road, Wailuku, Hawaii 96793, referred to as "Wailuku", and the COUNTY OF MAUI, through its DEPARTMENT OF WATER SUPPLY, whose principal place of business and mailing address is 200 South High Street, Wailuku, Hawaii 96793, referred to as "DWS".

WITNESSETH:

WHEREAS, on December 1, 2002, the Board of Water Supply of the County of Maui entered into an agreement with Alexander & Baldwin, Inc., Hawaii Commercial and Sugar Company, Inc., Wailuku Agribusiness Co., Inc., pursuant to which the Department of Water Supply has had the ability to withdraw from the Iao/Waikapu Ditch up to 1,500,000 gallons of water per 24 hour period;

WHEREAS, the December 1, 2002 Agreement between Board of Water Supply and the referenced parties will terminate on November 30, 2004;

WHEREAS, DWS has requested Wailuku to permit DWS to continue to withdraw surface water from the Iao/Waikapu Ditch for the purpose of easing the demand on the Iao Aquifer ground water resources; and

WHEREAS, such water currently is being used by Wailuku; and

WHEREAS, Wailuku is willing to provide such water in order to accommodate DWS;

NOW, THEREFORE, IN CONSIDERATION of mutual promises and agreements of the parties, the parties hereto agree as follows:

1. Term. The term of this Agreement shall be three years, beginning December 1, 2004 and ending November 30, 2007.
2. Water. From the water collected by Wailuku in the Iao/Waikapu Ditch system, Wailuku shall make available to DWS, at the location along the Iao/Waikapu Ditch, as identified in Exhibit "A", attached hereto and incorporated herein by reference (the "Delivery Point"), which location is downstream (but not within 25 feet) of the existing Iao/Waikapu Ditch gauging station, up to Three Million Two Hundred Thousand (3,200,000) gallons of water per twenty-four hour period; provided, however, that, as soon as possible upon notice from Wailuku or its authorized representative that the flow in Iao Stream is below 11.5 million gallons of water for the immediately-prior twenty-four hour period, as measured by the U. S.

Geological Survey gauging station located at Iao Stream at Kepaniwai Park near Wailuku, DWS shall cease all withdrawal hereunder from Iao/Waikapu Ditch for so long as the Iao Stream flow remains below 11.5 million gallons of water per twenty-four hour period. As soon as possible, Wailuku will provide written notice to DWS when the flow in Iao Stream exceeds 11.5 million gallons for a 24 hour period, such that DWS may then continue its withdrawal of water, as authorized hereunder.

The net amount of water withdrawn from the Iao/Waikapu Ditch shall be calculated by DWS from the three meters<sup>1</sup> installed and maintained by DWS, at its sole expense; said meters are located immediately after DWS' intake from the Iao/Waikapu Ditch immediately before DWS' micro-filtration unit, between the micro-filtration unit and the DWS storage tank. DWS shall provide continuous access to Wailuku to the three DWS meters in order for Wailuku to verify the meter readings. DWS shall maintain the meters within two percent (2%) accuracy and test them on a reasonable periodic basis (at least quarterly) and provide such testing results to Wailuku immediately after obtaining such testing results.

3. Charges. In return for the access granted by Wailuku to DWS to Wailuku's water system and for providing the withdrawal of up to 3,200,000 gallons of water available to DWS, for said 24 hour period, DWS shall pay to Wailuku a fixed transportation fee of \$0.48 per thousand gallons delivered. The gallons delivered shall not include water used for back washing, as long as such back washing water is placed back into Wailuku's water system. DWS shall pay the fee, plus the applicable general excise tax on the same. It is the intent of Wailuku and DWS that DWS shall pay for the actual net amount of water withdrawn from the Iao Waikapu Ditch (excluding water used for back washing filters and returned to the Iao/Waikapu Ditch and/or the Waihee Ditch).

Commencing on December 1, 2004, or earlier, as otherwise agreed to by the parties in writing, DWS shall pay the foregoing fees to Wailuku on a monthly basis. The payment shall be made by DWS to Wailuku on or before the 10th day of the month following the month in which the water is withdrawn. Payment of the foregoing fees to Wailuku shall fully and completely satisfy the obligation of DWS for the payment of fees required under this section. Interest rate at 1% per month shall be applied to any late payments. Concurrent with the payment of the fees described in this

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<sup>1</sup> The three meters installed and maintained by DWS include Meter 1 which is the meter from the ditch to the intake; Meter 2 which is the meter from the intake to the filter system; and Meter 3 is the meter from the filter to DWS' tank. The back wash which DWS will not be charged is the volume under Meter 1 (ditch to the intake) minus the volume under Meter 3 (the gallonage from the filter system to the distribution tank). The back wash shall not be charged to DWS as long as DWS places the back wash water to the Iao/Waikapu Ditch system and/or the Waihee Ditch system.

section, DWS shall provide Wailuku with a report disclosing its daily meter readings, from each of the DWS three meters for the month in question, as well as the computation of fees. DWS may avoid transportation fees with regard to water it withdraws from the Iao Waikapu Ditch during testing by returning such water (other than samples taken for testing) to the Iao/Waikapu Ditch or the Waihee Ditch. DWS shall document the taking of the water by testing and the return of the water to either the Iao Waikapu Ditch or the Waihee Ditch. Copies of all test reports shall be provided to Wailuku.

4. License by Wailuku to DWS: Wailuku hereby grants to DWS a license to enter into Wailuku lands identified on Exhibit "A" for the purposes of carrying out DWS' rights to withdraw water from the Iao/Waikapu Ditch under this Agreement. This license shall be coterminous with this Agreement and shall end on November 30, 2007, unless earlier terminated by Wailuku, as provided herein, including any breach by DWS.
5. No Third Party Beneficiaries. Nothing in this Agreement shall be construed as giving any person or entity, other than the parties hereto and their successors and assigns, any right, remedy or claim under or in respect to this Agreement or any provision hereof.
6. Operation of the Micro-Filtration Unit. DWS shall be solely responsible for the operation of its micro-filtration unit, as well as for the repair and maintenance of the unit and the electrical and other costs to operate the unit.
7. Indemnification With Respect to the Use and Quality/Quantity Water. To the extent permitted by law, DWS shall defend, indemnify and hold harmless Wailuku, its subsidiaries and affiliates, including its directors, officers, employees, agents, and representatives from and against any claim, damages or liability, suit or action brought against it (including all costs and expenses resulting therefrom, including reasonable attorney's fees) arising out of or in connection with the use and/or quality and/or quantity of water withdrawn by DWS from the Iao Waikapu Ditch pursuant to this Agreement, including without limitation, any claim for personal injury (or death) or loss of property based upon the use, quality or the quantity of such water withdrawn by DWS.
8. Indemnification With Respect to Use of Premises. To the extent permitted by law, DWS shall defend, indemnify and hold harmless Wailuku against any claim, suit or action, liability, damages incurred or suffered by Wailuku, including all costs and expenses resulting therefrom including reasonable attorney's fees, including without limitation a claim for personal injury or death, or loss of property arising out of or in connection with or based upon use by DWS of the property of Wailuku under this Agreement, including the occupancy by DWS, its employees, agents, contractors, licensees, assignees

of any of Wailuku's lands, whether leased or owned in fee by Wailuku, including but not limited to, roads, trails, the Delivery Point, or the Iao/Waikapu Ditch. To the extent permitted by law, DWS shall reimburse Wailuku for all of its costs and expenses, including reasonable attorneys' fees, incurred in connection with the defense of any such claims, suits or actions.

9. Acceptance of Water Delivered. DWS hereby represents that it accepts the delivery of water from Wailuku at the Delivery Point and the Iao/Waikapu Ditch in its "AS IS" condition.
10. Action by State of Hawaii Commission on Water Resource Management. If during the term of this Agreement the State of Hawaii Commission on Water Resource Management shall by the designation of the Iao/Waikapu Ditch, and/or by the adoption of an instream restoration plan, or other action, reduce the water available to Wailuku, then Wailuku shall have the option at its election, in its sole discretion by written notice to DWS, to terminate this Agreement or to reduce the water available to DWS under this Agreement.
11. Risk of Loss. DWS shall hold all equipment, machinery and other property whatsoever at the micro-filtration unit site and or upon any Wailuku property in connection with this Agreement at its sole risk, and shall save Wailuku harmless from any loss or damage thereto from any cause whatsoever.
12. Public Utility. Neither party shall attempt to have the Public Utilities Commission of the State of Hawaii (PUC) nor any other regulatory agency exercise any regulatory authority over any matter set forth in the Agreement. If the PUC or any other governmental regulatory agency should, exercise any regulatory authority over any matter set out in the Agreement, or seek to obtain regulatory authority over Wailuku, or the Iao/Waikapu Ditch (or any portion thereof) as a result of any matter set forth in the Agreement, or use this Agreement in any manner in support of its attempt so to obtain such regulatory authority, Wailuku may, in its sole discretion, by written notice to DWS, terminate immediately the Agreement, and shall be entitled to enforce such termination through any and all legal means available.
13. Assignment. DWS shall not, without the prior written consent of Wailuku, which consent shall be exercised in their absolute discretion, transfer, assign, mortgage, sublease, sublicense, or otherwise encumber, this Agreement or any portion thereof. No permitted assignment or other transfer of this Agreement or any portion thereof shall relieve DWS of any of its duties or obligations hereunder.

14. Permits. DWS shall obtain all governmental permits, approvals or the like at its sole expense, required for the uses, activities and operations, which are contemplated by this Agreement.
15. Government Regulations. DWS shall observe, perform and comply with all applicable government laws, ordinances, rules and regulations applicable to any of the matters set out in this Agreement. DWS shall observe and perform the terms and conditions of any government permit that it obtains under this Agreement.
16. Condemnation. If at any time any of the property utilized and enjoyed under this Agreement by DWS, including but not limited to, lands owned or controlled by Wailuku in fee or lease, roads and the Iao/Waikapu Ditch, or any portion thereof, are taken or condemned by any authority having the power of eminent domain, then and in every such case, all compensation and damages payable for or on account of any such property shall be paid to and be the property of Wailuku, as appropriate, without any apportionment thereof to DWS, provided that DWS shall be entitled to recover only from the condemning authority compensation and damages payable only for or on account of any improvements erected by DWS on such property and for any and all damage to DWS's business by reason of any condemnation as may be separately awarded. It is hereby expressly agreed that DWS has no estate or interest of any kind or nature whatsoever in such lands which are covered by this Agreement or in the Iao/Waikapu Ditch System. In the event that the condemning authority takes any such land or the Iao/Waikapu Ditch, or any portion thereof, so as to render the purpose of this Agreement impractical, in Wailuku's sole discretion, this Agreement shall terminate, and Wailuku, as applicable, shall be entitled to enforce such termination and condemnation recovery as provided for herein through any and all legal means available.
17. Condition of Premises/Assumption of Risk. DWS hereby agrees and acknowledges that Wailuku has not made or will not make any representations or warranties, implied or otherwise, with respect to the condition of the water and/or lands referred to in Section 2 of this Agreement or of the Iao/Waikapu Ditch, including but not limited to the Delivery Point, including any dangerous or defective conditions existing upon or with respect to such lands and/or to the Iao/Waikapu Ditch, whether or not such conditions are known to Wailuku or reasonably discoverable by DWS. DWS accepts each entry upon such lands and use of the Iao/Waikapu Ditch with full assumption of the risks and consequences of said conditions.
18. No Liens. DWS shall not commit or suffer any act or neglect whereby the land referred to in Section 2 of this Agreement, or the Iao/Waikapu Ditch, including any improvements thereon, or DWS's interest in the same at any time during the term of this Agreement, shall become subject to any attachment, lien, charge or encumbrance whatsoever, and, to the extent

permitted by law, shall indemnify and hold harmless Wailuku against all liens, charges and encumbrances and all expenses resulting therefrom, including reasonable attorney's fees.

19. Hazardous Substances. As used herein, the term "Hazardous Material" means any hazardous, infectious or toxic substances, material or waste so designated or described, presently or in the future, by any environmental law of the United States, the State of Hawaii, or the County of Maui, or so designated or described by any government agency authorized to enforce any such environmental law. DWS shall not cause or permit any Hazardous Material to be brought upon, kept or used at or about the properties which are referred to in Section 2 of this Agreement (which, for the purposes of this Section, are collectively referred to as the "Premises"). If the presence of Hazardous Material at the Premises caused or permitted by DWS results in the contamination of the Premises or the Iao/Waikapu Ditch by Hazardous Materials otherwise occurs for which DWS is liable to Wailuku for damages resulting therefrom, then, to the extent permitted by law, DWS shall indemnify and defend Wailuku from any and all resulting claims, judgments, damages, penalties, fines, costs and liabilities or losses (including without limitation, diminution in value of the Premises or the Iao/Waikapu Ditch, damage for the loss or restriction on use of any part of the Premises or the Iao/Waikapu Ditch, attorney's fees and expert fees). Such obligation of DWS to so indemnify Wailuku includes, without limitation, any liability incurred in connection with any investigation of site conditions or any clean-up, and any remedial, removal or restoration work required, because of any Hazardous Material being present in the soil or ground water on or under the Premises. Without limiting the foregoing, if the presence of any Hazardous Material at the Premises caused or permitted by DWS results in any contamination of the Premises or Iao/Waikapu Ditch, DWS shall promptly take all actions at its sole expense necessary to return the Premises or Iao/Waikapu Ditch to the condition existing prior to the introduction of any such Hazardous Material.
20. Shutdown of Ditch. Nothing in this Agreement shall be deemed to prevent Wailuku from shutting down all or part of the Iao/Waikapu Ditch system permanently or temporarily, as necessary or desirable in Wailuku's sole and absolute determination because of repair work being done to the Iao/Waikapu Ditch system, or because of operational or safety concerns, there being no representation, warranty or guaranty by this Agreement that Wailuku will continue to operate the Iao/Waikapu Ditch. In the event of a permanent shutdown, this Agreement shall be deemed terminated. If a shutdown is temporary, this Agreement shall be suspended for the duration of the shutdown.

21. Force Majeure. Wailuku shall not be responsible for any failure to make available the water that is the subject of this Agreement, if such failure arises out of or results from an event of force majeure including, without limitation, Act of God, strike or other labor trouble, national emergency, war, riot or other civil disturbance, sabotage, failures or delays in transportation, inability to secure raw materials, parts or supplies, rules, regulations, orders or directives of any governmental authority or the order of any court of competent jurisdiction, or any other cause, contingency or circumstance not subject to either of its reasonable control which prevents or hinders the availability of the water.
22. Termination of Agreement. Wailuku may terminate this Agreement in the event that DWS is in default under this Agreement by failing to observe or perform any or all of the covenants contained in the Agreement.
23. Power and Authority: Wailuku has the full power to consummate the transaction provided for in this Agreement. The execution and delivery of this Agreement by Wailuku has been duly and validly authorized by the necessary corporate action on the part of Wailuku and this Agreement constitutes the legal, valid and binding obligation of Wailuku.

DWS has the full power to consummate the transactions provided for in this Agreement. The execution and delivery of this Agreement by DWS and the consummation of the transactions herein have been duly and validly authorized by the necessary action on the part of DWS and this Agreement constitutes the legal, valid and binding obligation by DWS.

24. Independent Contractors. The parties understand and agree that each of them has entered upon this Agreement as an independent contractor. The parties do not intend to create a partnership or joint venture between or among them by this Agreement. The parties do not intend to create a principal and agent relationship between or among them by this Agreement. No party has any authority or power to act as the agent for or bind the other in respect to any matter whatsoever.
25. Notices. Any notice required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been delivered when (i) personally delivered, (ii) sent by facsimile transmission, or (iii) sent by certified or registered mail, postage prepaid, return receipt requested, to the address or facsimile number as the party to whom notice is to be given may provide in a written notice to the other parties. Notice also shall be deemed to have been delivered when given pursuant to more expeditious means, such as telephone or e-mail, as mutually agreed upon by the parties. If such more expeditious means is by other than written means, subsequent written notice shall be delivered pursuant to (i), (ii) or (iii) above within twenty-four hours.

If to DWS: Department of Water Supply  
County of Maui  
200 South High Street  
Wailuku, Hawaii 96793  
Attn: Director, Department of Water Supply  
Facsimile No.: (808) 270-7951

or

Water Treatment Plant Operations Manager  
614 Palapala Drive  
Kahului, Hawaii 96732  
Facsimile No.: (808) \_\_\_\_\_

with copy to:

Department of the Corporation Counsel  
County of Maui  
200 South High Street  
Wailuku, Hawaii 96793  
Attn: Edward S. Kushi, Jr., Deputy Corporation Counsel  
Facsimile No.: (808) 270-7152

If to Wailuku: Wailuku Agribusiness Co., Inc.  
255 East Waiko Road  
Wailuku, Hawaii 96793  
Attn: Avery B. Chumbley  
Facsimile No.: (808) 242-7068

with copy to:

C. Brewer and Company, Limited  
P. O. Box 1826  
Papaikou, Hawaii 96781-1826  
Attn: General Counsel  
Facsimile No.: (808) 964-8426

and with copy to:

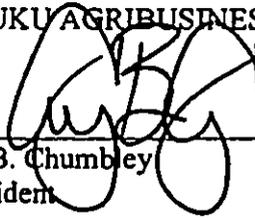
Mancini, Welch & Geiger, LLP  
33 Lono Avenue Suite 470  
Kahului, Hawaii 96732  
Attn: Paul R. Mancini  
Facsimile No.: (808) 871-0732

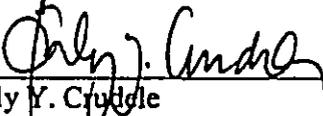
26. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed to be an original, but all of which shall constitute one and the same instrument.
27. Facsimile. Fax (facsimile) copies of this executed Agreement shall be fully binding and effective for all purposes whether or not original executed documents are transmitted to Escrow. Fax signatures on documents will be treated the same as original signatures. However, each party agrees that it will promptly forward originally executed agreements to each other.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be duly executed on the date first above written.

WAILUKU:

WAILUKU AGRIBUSINESS CO., INC.

  
\_\_\_\_\_  
Avery B. Chumbley  
Its President

  
\_\_\_\_\_  
Beverly Y. Criddle  
Its Secretary

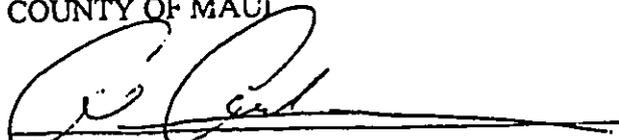
DWS:

COUNTY OF MAUI

\_\_\_\_\_  
Alan M. Arakawa  
Its Mayor

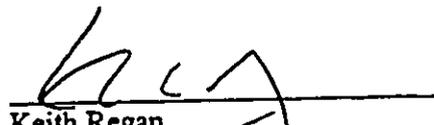
DWS:

COUNTY OF MAUI

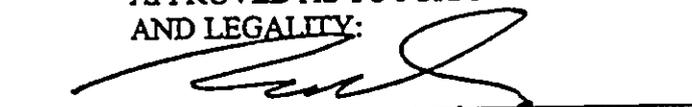


Alan M. Arakawa  
Its Mayor

**APPROVAL RECOMMENDED:**

  
George C. Tengan  
Director of Water Supply  
Keith Regan  
Director of Finance

APPROVED AS TO FORM  
AND LEGALITY:

  
Edward S. Kushi, Jr.  
(Please type or print name above)  
Corporation Counsel  
County of Maui



STATE OF HAWAII        )  
                                  )SS.  
COUNTY OF MAUI        )

On this \_\_\_\_\_ day of JUN 9 2004, 2004, before me appeared ALAN M. ARAKAWA, to me personally known, who being by me duly sworn did say that he is the Mayor of the County of Maui, a political subdivision of the State of Hawaii, in the capacity shown, having been duly authorized to execute such instrument in such capacity, and that the seal affixed to the foregoing instrument is the lawful seal of the said County of Maui, and that the said instrument was signed and sealed in behalf of said County of Maui by authority of its Charter, and the said ALAN M. ARAKAWA acknowledged the said instrument to be the free act and deed of said :County of Maui.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

*Linda K. Tamashiro*  
\_\_\_\_\_  
Notary Public, State of Hawaii  
Print Name: LINDA K. TAMASHIRO  
My commission expires: 10/17/06

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Exhibit "A"

TMK 3-5-01:01 WAHUKU AGRIBUSINESS CO INC.

IAO/WAIKAPA DITCH

APIDR 2,500 feet  
COUNTY OF MAUI  
DEPARTMENT OF WATER SUPPLY  
LICENSE USE AREA, IAO/WAIKAPA DITCH  
SURFACE WATER AGREEMENT

TMK 3-5-01:07  
HAWAII LAND FARMING

L.C.A.M.

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PART 5 - SECTION 1

IAO VALLEY WEST MAIN ST

Ditch w-Tei  
QWA  
P. J. T. W.

GRANT 172  
TO EDWARD BAILEY

COUNTY OF MAUI  
(Current)

LCAM 375  
TO KEKIPI

PURLAN  
NO. 4

5  
± Acs

