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**DEPARTMENT OF WATER SUPPLY**

COUNTY OF MAUI

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OFFICE OF ENVIRONMENTAL QUALITY CONTROL

April 28, 2009

Katherine Puana Kealoha, Director  
Office of Environmental Quality Control  
235 South Beretania Street, Suite 702  
Honolulu, Hawaii 96813

Dear Ms. Kealoha:

Subject: Finding of No Significant Impact (FONSI) for Iao Tank Site Well Development, TMK (2)3-5-01:021, Wailuku, Maui, Hawaii

The County of Maui Department of Water Supply has reviewed the comments received during the 30-day public comment period which began on October 8, 2008. The agency has determined that this project will not have significant environmental effects and has issued a Finding of No Significant Impact. Please publish this notice in the next available OEQC Environmental Notice.

We have enclosed a completed OEQC Publication Form, one copy of the document in pdf format, two copies of the Final EA, and the project summary in electronic format.

If you have any questions, please call Wendy Taomoto of our Engineering Division at (808)270-7835.

Sincerely,

Jeffrey K. Eng  
Director

enclosures

*"By Water All Things Find Life"*

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**FINAL  
ENVIRONMENTAL ASSESSMENT**

**IAO TANK SITE WELL  
DEVELOPMENT**

Prepared for:

County of Maui  
Department of Water Supply

May 2009

**Fukunaga & Associates, Inc.**  
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# Project Summary

<b>Project:</b>	Iao Tank Site Well Development
<b>Proposing Agency:</b>	County of Maui, Department of Water Supply
<b>Purpose:</b>	Develop Iao Tank Site Well as a production well, which will involve installation of a pump (up to 1400gpm), pump controls, discharge piping and appurtenances, control building, chlorination facilities, radio telemetry and electrical work, and site improvements.
<b>Anticipated Determination:</b>	Finding of No Significant Impact (FONSI)
<b>Tax Map Key:</b>	3-5-01:021
<b>Property Owner:</b>	County of Maui
<b>State Land Use:</b>	Agricultural
<b>County Zoning Ordinance:</b>	Agricultural
<b>Pre-assessment Consultation:</b>	County of Maui, Department of Water Supply State Commission on Water Resource Management Department of Business, Economics, Development and Tourism County of Maui, Department of Environmental Management State Department of Health State Department of Land and Natural Resources State Department of Parks and Recreation County of Maui, Department of Planning County of Maui, Department of Public Works Kehalani Mauka, LLC Office of Hawaiian Affairs

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### **ACRONYMS AND ABBREVIATIONS**

BMP	Best Management Practice
CZO	Comprehensive Zoning Ordinance
CWRM	Commission on Water Resource Management
DHHL	Department of Hawaiian Home Lands
DOH	Department of Health
DWS	Department of Water Supply
DWSRF	Drinking Water State Revolving Fund
EA	Environmental Assessment
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
HAR	Hawaii Administrative Rules
HRS	Hawaii Revised Statutes
HSRFP	Hawaii State Revolving Fund Program
LCA	Land Commission Awards
MG	million gallon
mgd	Million Gallons per Day
msl	Mean Sea Level
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
TMK	Tax Map Key
USDA SCS	U.S. Department of Agriculture Soil Conservation Service
WTP	Water Treatment Plant

## I. INTRODUCTION

### A. PURPOSE OF THE PROJECT

Wailuku and Kahului are the population center of the island of Maui. Upon the completion of Wailuku Shaft 33 about 60 years ago, a large amount of groundwater pumped from the Iao Aquifer has been a major water source in the area.

In 1990, the sustainable yield of the Iao Aquifer was set at 20 million-gallons-per-day (mgd) by the State Commission on Water Resource Management (CWRM). The Iao Aquifer was designated as a State groundwater management area on July 21, 2003, when water withdrawals exceeded 18 mgd, or 90-percent of the sustainable yield of the aquifer. This requires the Maui Department of Water Supply (DWS) to manage the aquifer in accordance with limits set by CWRM. (*Reference 1*)

The health of a potable water aquifer is not only dependent on the sustainable yield but is also dependent upon minimizing the rise in salinity due to localized over-pumping. This would be caused by high withdrawals at only a few wells or well fields within the aquifer that would draw the underlying saline sea water up into the fresh water lens. The rise in salinity due to significant localized groundwater withdrawal has been seen at potable water wells within the Iao Aquifer. In order to keep the aquifer in optimal condition, new water wells need to be developed so that quality and quantity of groundwater production will be more stabilized over a wider area of the Iao Aquifer.

The proposed well, named Iao Tank Site Well (State Well No.5230-03), is located at the County of Maui Reservoir lot, 0.3 mile from Wailuku Shaft 33. In September 2005, the Iao Tank Site Well was drilled to a total depth of 606 feet, and a 4-day constant rate test was performed. All chemical parameters tested were within the water quality standards set by the State Department of Health (DOH) Safe Drinking Water Branch.

The purpose of the proposed outfitting of the Iao Tank Site Well with a pump and controls is to distribute pumping over a wider area of the aquifer. Overall withdrawals from the aquifer will not be increased. Instead, pumping at other wells within the aquifer can be reduced when the Iao Tank Site well goes into service. This mitigative action is required to maintain the health of the Iao Aquifer.

This project may be funded by bond funds.

### B. PROJECT LOCATION

The Iao Tank Site Well (State Well No.5230-03), with coordinates of latitude 20°52'58" North and longitude 156°30'48" West, is located approximately 2.5 miles southwest of Wailuku within the Maui Department of Water Supply's 3.0 million

gallon (MG) Iao Tank site near the intersection of Alu Road and Iao Valley Road. The Tax Map Key (TMK) for the project site is (2) 3-5-01: 021, and this parcel is owned by Maui County. The area of this lot is approximately 1.326 acres. Kehalani Mauka Subdivision is being constructed to the east of the project site. The department is in the process of acquiring Lot T-1 (1.502 acres) of the Kehalani Mauka (Large-Lot Subdivision No.3-B), which is a portion of TMK: (2)3-5-01:067, to expand the Iao Tank Site. Figures 1 and 2 show the project location.

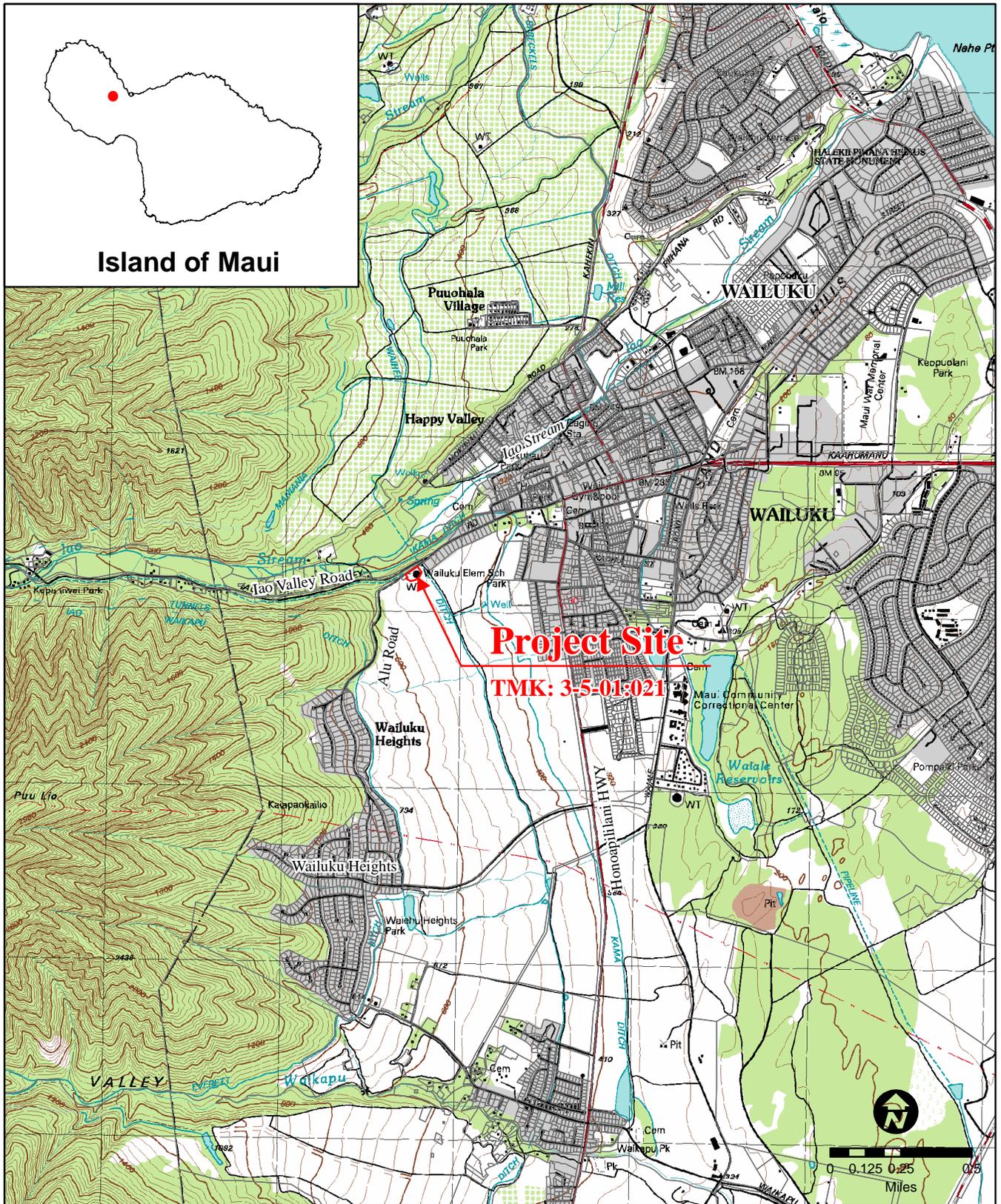
### C. IAO AQUIFER

CWRM has developed an aquifer classification system, which divides each island into Sectors and each Sector into Systems. The Aquifer Sectors reflect broad hydro-geological similarities, and Aquifer Systems are more specifically defined by hydraulic continuity among aquifers in the System. The Iao Aquifer System is in the Wailuku Aquifer Sector, which also includes the Waikapu, Waihee, and Kahakuloa Aquifer Systems. The Wailuku Aquifer Sector has a total sustainable yield of 38 mgd. Figure 3 shows aquifer sectors and systems with the sustainable yields.

The Iao Aquifer is located on the eastern side of the West Maui Mountain. The sustainable yield of the Iao Aquifer System is set at 20 million gallons per day (mgd). Within 24.7 square miles, the sources of water for the Iao Aquifer System include the leakage from the dike-confined caldera complex of the West Maui volcano and direct recharge. The wells in this aquifer all tap the basal lens. Leakage to the sea from the Iao Aquifer System is constrained by a thick alluvium layer, unlike the other Systems in this Aquifer Sector.

CWRM designated the Iao Aquifer System as a groundwater management area on July 21, 2003. As a result, all existing and new well owners must apply for water use permits. As of March 2009, CWRM had permitted a total of 19.083 mgd in water use applications for existing uses. The rest of 0.917 mgd is available for new water use permits. (*Reference 1 and Appendix C*)

The groundwater is mostly pumped from five major wells or well fields in the Iao Aquifer. Those are Mokuhaul, Waiehu Heights, Waihee, Kepaniwai, and Wailuku Shaft 33. Pumping from each well field generates a conic depression that overlaps one or more of the other well fields. The Iao Aquifer has been experiencing an overall water level decline that has resulted in a corresponding rise of the freshwater-saltwater (brackish) transition zone. (*Reference 2*)

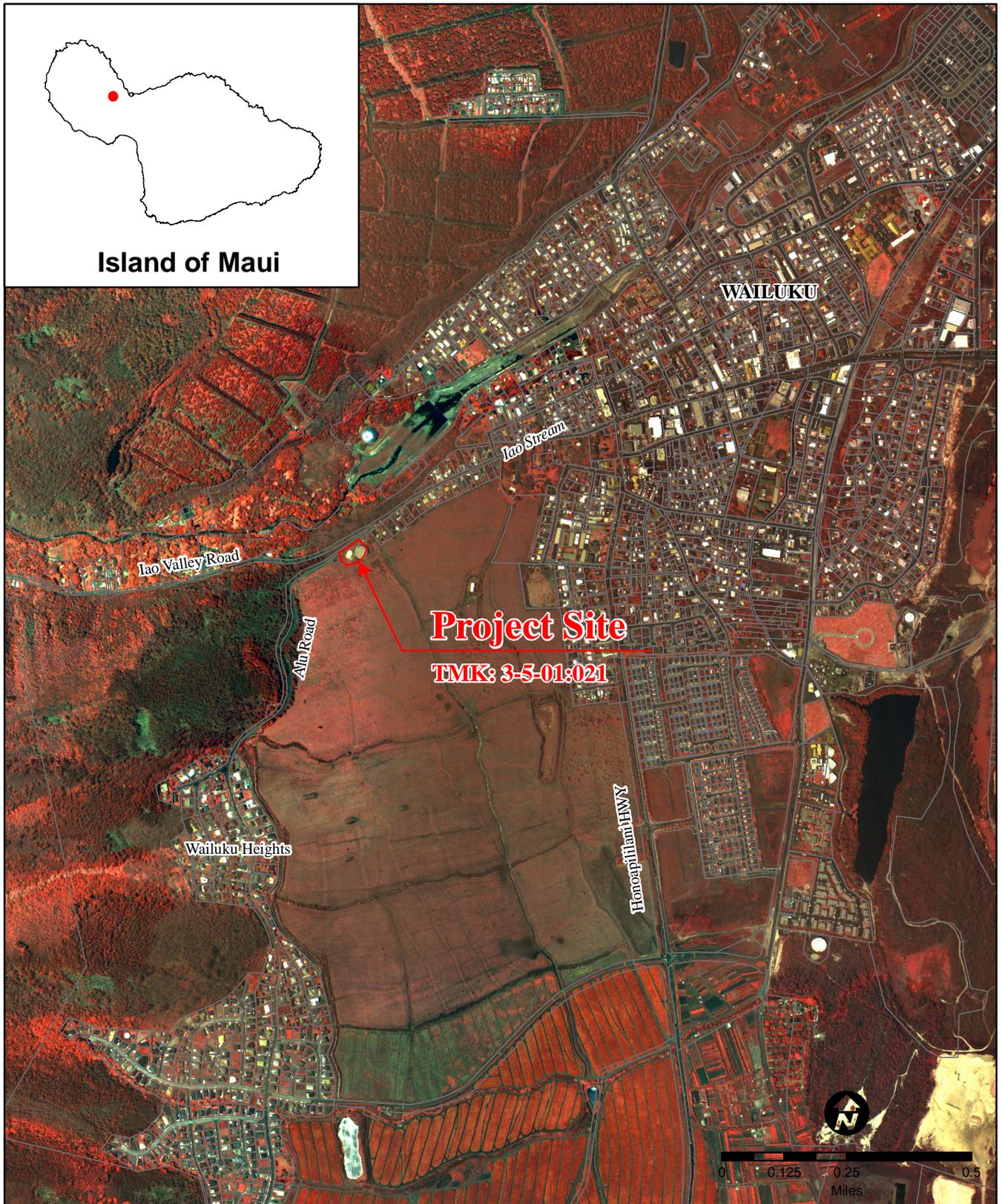


**IAO TANK SITE WELL**

**PROJECT LOCATION**

COUNTY OF MAUI  
Department of Water Supply

Figure 1



**IAO TANK SITE WELL**

COUNTY OF MAUI  
 Department of Water Supply

**PROJECT LOCATION**

Figure 2



**LEGEND:**

**IAO TANK SITE WELL**

**SUSTAINABLE YIELD / AQUIFER CODE**

COUNTY OF MAUI  
Department of Water Supply

Figure 3

#### D. EXISTING WATER SYSTEMS & IAO TANK

The Iao Aquifer provides groundwater to the Central Maui Water System. The Central Maui Water System is the DWS's largest water system on the island of Maui and serves water to the major population centers, extending from Wailuku, Waihee, Waikapu, Wailuku heights, Kahului, Puunene, Kihei, Maalaea, Makena, Paia-Kuau, and Spreckelsville. The Central Maui Water System is supplied primarily from Mokuahu Wells, Waihee Wells, Waiehu Heights Well, Kepaniwai Well, Iao Tunnel, and Wailuku Shaft 33. Additionally, some surface water is treated and introduced into the Central Maui Water System. Two million gallons per day (mgd) of water is withdrawn from the Iao-Waikapu Ditch. The water from the ditch is transported along the edge of a pasture land at parcel 3-5-01:001 to the Iao Water Treatment Facility.

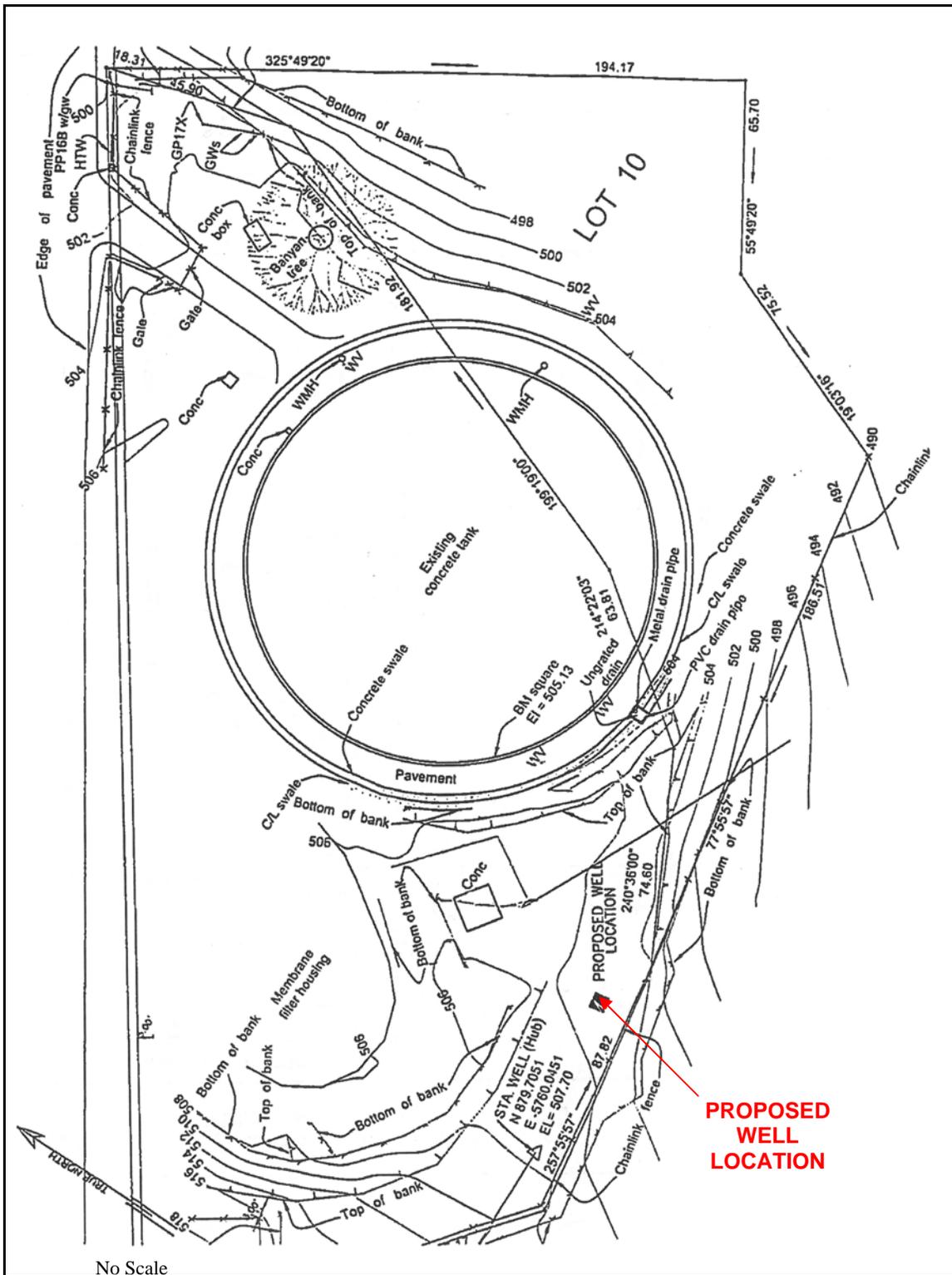
A membrane filtration water treatment system was built adjacent to the Iao Tank to treat water with micro-filtration. The 0.2 micron-opening fiber membranes strain solids, biomass, and microorganisms from the raw water coming into the facility. The filters require periodic cleaning and maintenance.

The Iao Tank, a 130-foot diameter 3.0 MG concrete reservoir constructed in 1992, is located at the eastern end within the same property of the proposed well site. Previously, a 2.1 MG tank was located on the upper western side, but it has been demolished and the area is used for the treatment facility. See Figure 4.

#### E. IAO TANK SITE WELL

The Iao Tank Site Well (5230-03) was drilled and tested by Wailani Drilling, Inc. in September, 2005. The well was drilled a total of 606 feet (to -101 feet msl) deep from a ground elevation of 505 feet msl. The well is cased with a 20 inch solid steel casing to a depth of 498 feet, and with a 20 inch louvered screen casing to a depth of 606 feet. The static water level in the well was measured at 13.72 feet msl on July 27, 2005.

The 4-day constant rate test was performed on August 15-19, 2005. The DWS monitored the water level, during the period surrounding the 4-day constant rate test. Water samples were collected during the constant rate test and analyzed by MWH Laboratories of Monrovia, California for parameters required by the Hawaii Department of Health for new drinking water sources. All parameters tested were either non-detectable or within maximum contaminant levels. According to the *Results of Drilling and Testing* report, "No coliforms were found from the water samples. The chloride concentration of the water samples was measured at 17mg/L, and water temperature was steady at 70°F during the 4-day constant rate test. The well is capable of yielding 1,400 gpm." (Reference 3) There were no reported effects on Iao Stream or any other streams or water bodies during the well testing. The DWS submitted a Water Use Permit



**IAO TANK SITE WELL**

COUNTY OF MAUI  
Department of Water Supply

**Iao Tank Site**

Figure 4

Application (No.823) and was granted 0.498 mgd withdrawal of water on a 12-month moving average basis at Iao Tank Site Well on November 26, 2007. (*Reference 4*)

In the most recent approved permits (WUP No. 846), dated on February 18, 2009, CWRM approved the Iao Tank Site Well (Well No.5230-03) for use of 0.979 mgd of water on a 12-month moving average basis. (*Appendix C*) The 0.979 mgd permitted withdrawal at Iao Tank Site Well is the first step in distributing withdrawals from the aquifer. The redistribution was done administratively per Declaration Ruling DEC-ADM97-A1 and the Water Use Permit process administered by the CWRM. Pumping from existing wells will be further reduced, or eliminated in the case of Shaft 33, and pumping from the Iao Tank Site Well could be increased accordingly to further distribute withdrawals over the aquifer. When the nearby Shaft 33 pump is taken out of service, up to 4.8 mgd would need to be redistributed to other wells. The pumping rate from the Iao Tank Site Well may be increased with approval of subsequent Water Use Permits by the CWRM when further redistribution is needed.

#### F. DEPARTMENT OF HAWAIIAN HOME LANDS

The use of water from the proposed well will not interfere with the rights of the Department of Hawaiian Home Lands (DHHL), as provided in Section 221 of the Hawaiian Homes Commission Act. There are no DHHL wells in the Iao Aquifer. The County's water system "serves homes built by the DHHL." (*Reference 1*)

#### G. PROPOSED PROJECT

The Maui Department of Water Supply is proposing the development of the exploratory well in the parcel 3-5-01:021 owned by the County. Developing Iao Tank Site Well will involve the following major work items:

1. Install 1400 gpm pump and controls
2. Construct pump discharge piping and connect to existing 3.0 MG tank
3. Construct control building for new pump
  - Electrical Room
  - Hypochlorite Room
4. Construct new driveway to control building

The well pump will initially operate for less than 12 hours per day (1400 gpm for 11.65 hours  $\approx$  0.979 mgd). Daily pump operation could be increased as water is further distributed over the aquifer, provided approval is obtained from the CWRM via the Water Use Permit application process.

The water from the proposed Iao Tank Site Well will be disinfected using sodium hypochlorite and sent to the existing 3-million-gallon tank. The well water will mix with water from other groundwater sources (Kepaniwai Well, Iao Tunnel and Wailuku Shaft 33) and treated surface water from the Iao Water Treatment Facility. The blending of surface and groundwater is currently taking place as part of normal operation of the Iao Tank. Therefore, the addition of additional groundwater from Iao Tank Site Well is not expected to have a significant impact on water quality or system operations.

A portion of the existing site will be graded for a proposed control building. The total disturbed area will be less than one acre. The site is sloping; therefore, some material will have to be removed as part of the grading and taken off-site. The DWS will obtain all approvals and permits necessary to properly accomplish the work, and the contractor will follow Best Management Practices to reduce impacts to air and water quality and promote good soil conservation practices.

An Engineering Report will be prepared for the well development. Details on the effects of surface and groundwater blending along with more details on water quality and specific systems to be provided will be included. The Engineering Report will be submitted to the State Department of Health Safe Drinking Water Branch for approval.

The project is expected to take 12 to 18 months to complete.

## II. COMPLIANCE WITH PLANNING DOCUMENTS

The proposed use of water is consistent with State and County General Plans, general policies, and land use designations. All regulation related to the project will be followed.

### A. MAUI COUNTY GENERAL PLAN

The Charter of the County of Maui establishes the structure and organization of the government, and defines the responsibilities of the County. The Charter requires the development of the General Plan and Community Plans.

The Maui County General Plan, first adopted in 1980 and updated in 1990, addresses development patterns, problems and needs unique to the communities; explains social, economic and environmental impacts of potential developments; and sets the desired sequence, patterns and characteristics of future developments. The General Plan also identifies objectives, priorities, policies and implementing actions with respect to various development matters, including water systems.

The proposed project is consistent with the General Plan objectives for water, and specifically moves toward achieving Objective 1 (IV. Transportation: B. Water section). “To provide an adequate supply of potable and irrigation water to meet the needs of Maui County’s residents.” The additional potable groundwater source to serve the community addresses the following specific policies:

- a. *Support the improvement of water transmission systems to those areas which historically experience critical water supply problems provided the improvements are consistent with the water priorities and the County’s Water and Use Development Plan provisions for the applicable community plan area.*
- b. *Meet or exceed Federal quality standards for the potable water supply.*
- c. *Develop improved systems to provide better fire protection.*
- d. *Seek new sources of water by exploration in conjunction with other government agencies.*
- e. *Develop sufficient water supply during drought seasons so as to keep agricultural activities viable.*
- f. *Support the planning, preservation and development of water resources and systems which service Hawaiian Home Lands.*

## B. WAILUKU-KAHULUI COMMUNITY PLAN

For the County of Maui, the General Plan and the Community Plan are long-term strategic planning documents, which guide government actions and decision-making. The Charter deems the Community Plan as part of the General Plan. The Wailuku-Kahului Community Plan is one of nine community plans for Maui County, and reflects anticipated conditions in the region of Wailuku-Kahului, and advances planning goals, objectives, policies and implementation consideration to guide decision-making in the region through the year 2010.

The Plan addresses the following specific objectives and policies:

- a. *Coordinate water system improvement plans with growth areas to ensure adequate supply and a program to replace deteriorating portions of the distribution system. Future growth should be phased to be in concert with the service capacity of the water system.*
- b. *Improve the quality of domestic water.*
- c. *Promote water conservation and education programs.*
- d. *Protect water resources in the region from contamination, including protecting ground water recharge areas, and wellhead protection areas within a 1.25 miles radius from the wells.*
- e. *Coordinate the construction of all water and public roadway and utility improvements to minimize construction impacts and inconveniences to the public.*
- f. *Coordinate expansion of and improvements to the water system to coincide with the development of residential expansion areas.*
- g. *Promote conservation of potable water through the use of treated waste water effluent for irrigation.*
- h. *Encourage reasonable rates for water and public utility services.*
- i. *Ensure that proliferation of telecommunication towers does not negatively impact the natural beauty of Maui County and the comfort and health of its residents.*

In the Wailuku-Kahului Community Plan, the County raised the concern that an increasing demand of water will be a major problem in the region.

*Waters of the County are held for the benefit of its residents. Growth of Maui's population has increased demands on water in the region threatening the sustainability of the region's water. An allocation plan must be adopted to protect and preserve these resources... In the view of the Citizens Advisory Committee, the development and delivery of additional sources of potable water was and is a critical factor in the long-range planning and development of the region... The prioritization and allocation of water resources is a major interregional issue that needs to be addressed in a comprehensive manner. (Reference 5)*

The Wailuku-Kahului Community Plan identifies the development of water sources as a primary concern. Groundwater is the most viable alternative to the limited surface water sources.

### C. MAUI COUNTY WATER USE AND DEVELOPMENT PLAN

The Maui County Water Use and Development Plan was updated in 1992 as part of the continuing planning process pursuant to the State Water Code, HRS Chapter 174C. Considerable effort was made to detail the present consumption patterns and characteristics in the various water districts served by the Department of Water Supply, County of Maui.

This Water Use and Development Plan mentioned that all DWS systems require urgent and immediate action and are expected to see an increase in demand in the future. The Plan states, "greater attention and resources must be given to water quality and reliability of service to meet the extreme conditions of maximum day demand..." and defines as follows:

1. *Volume to support domestic and agricultural activities*
2. *Water Quality for public health safety*
3. *Reliability for drought protection and quality of service*

The Iao Aquifer, the major resource for the Central Maui Water System, is reaching its limit in sustainable yield of 20 mgd. The Plan states that actual consumption and projected water consumption in 2010 of the Central Maui Water System will increase from 16.86 mgd in 1991 to an estimated 30 mgd in 2010. (Reference 6)

There are also changes in the chloride levels in the pumping wells. Including losses, the corresponding withdrawal rate from the Iao Aquifer is estimated at approximately 17.6 mgd.

### III. DESCRIPTION OF THE ENVIRONMENT

#### A. LAND CLASSIFICATION AND ZONING

##### 1. State Land Use

The State Land Use Commission classifies all State lands as Urban, Rural, Agricultural, or Conservation with the intent to accommodate growth and development and to manage the natural resources of the area. The State Land Use classification of the project site is Agricultural. See Figure 5 for the State Land Use zone designation.

##### 2. County Zoning

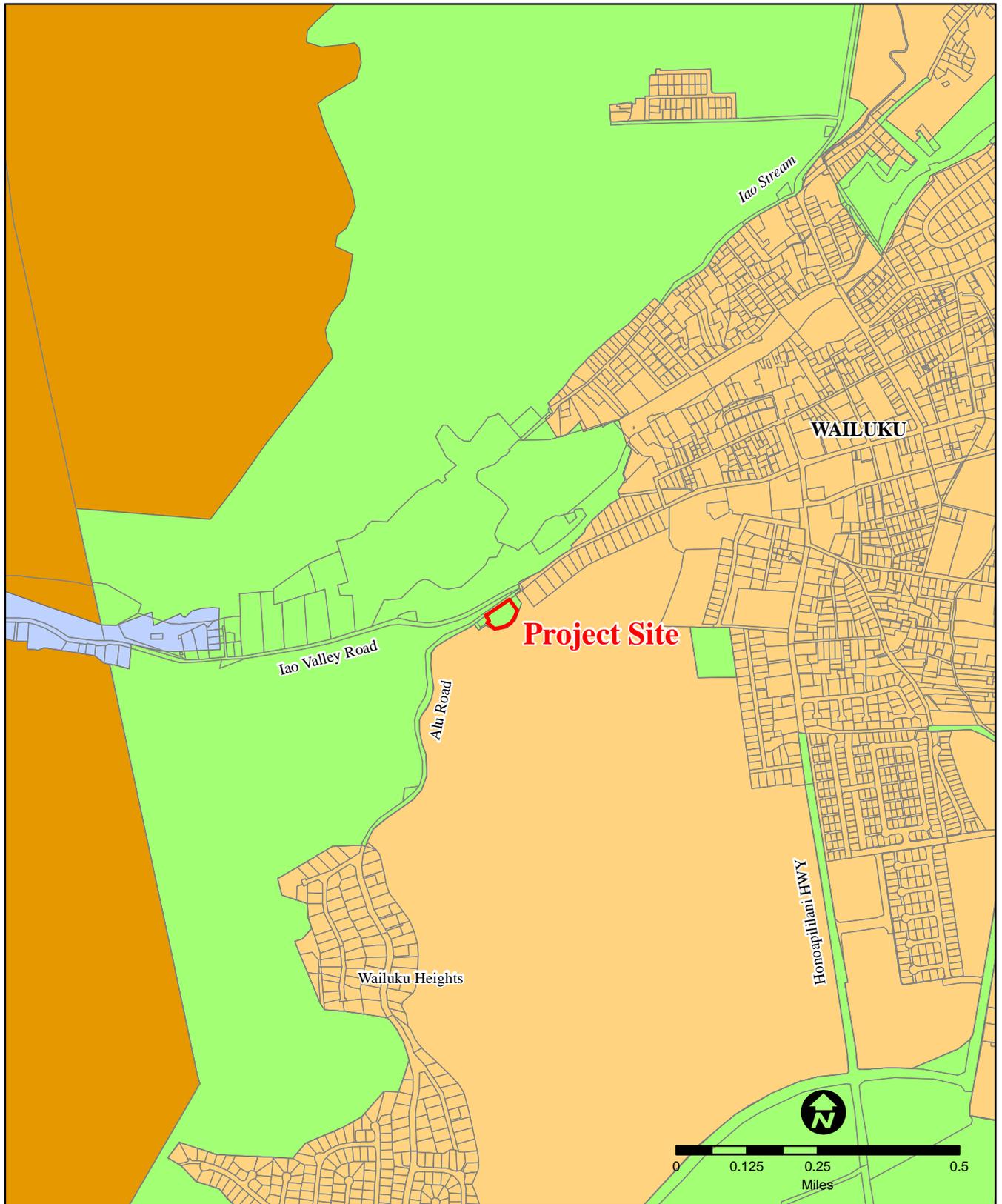
The Comprehensive Zoning Ordinance (CZO) for the County of Maui regulates more detailed land use zoning for the State designated land classifications. The CZO of the project site is Agricultural. The Comprehensive Zoning Ordinance map for the project area is shown in Figure 6.

##### 3. Maui General Plan

The County of Maui establishes the structure and organization of the government, and defines the responsibilities of the County. The County of Maui is legally mandated to prepare and adopt a Maui General Plan by State law and the County Charter. The General Plan provides guidance on land use regulations, the location and character of new development and facilities, and planning for County and State facilities and services.

The Maui General Plan addresses development patterns and needs unique to the communities; explains social economic and environmental impacts of potential developments; and sets the desired sequence, patterns and characteristics of future developments. The Maui General Plan also identifies objectives, priorities, policies and implementation actions with respect to various development matters.

The Maui General Plan includes the Land Use Map that depicts policy for long-range land uses with the following map designations: Urban Center, Resort, Residential Community, Agriculture, Open, Park, Transportation, Military. The project site is located in the Agricultural district. (*Reference 7*)



**LEGEND:**

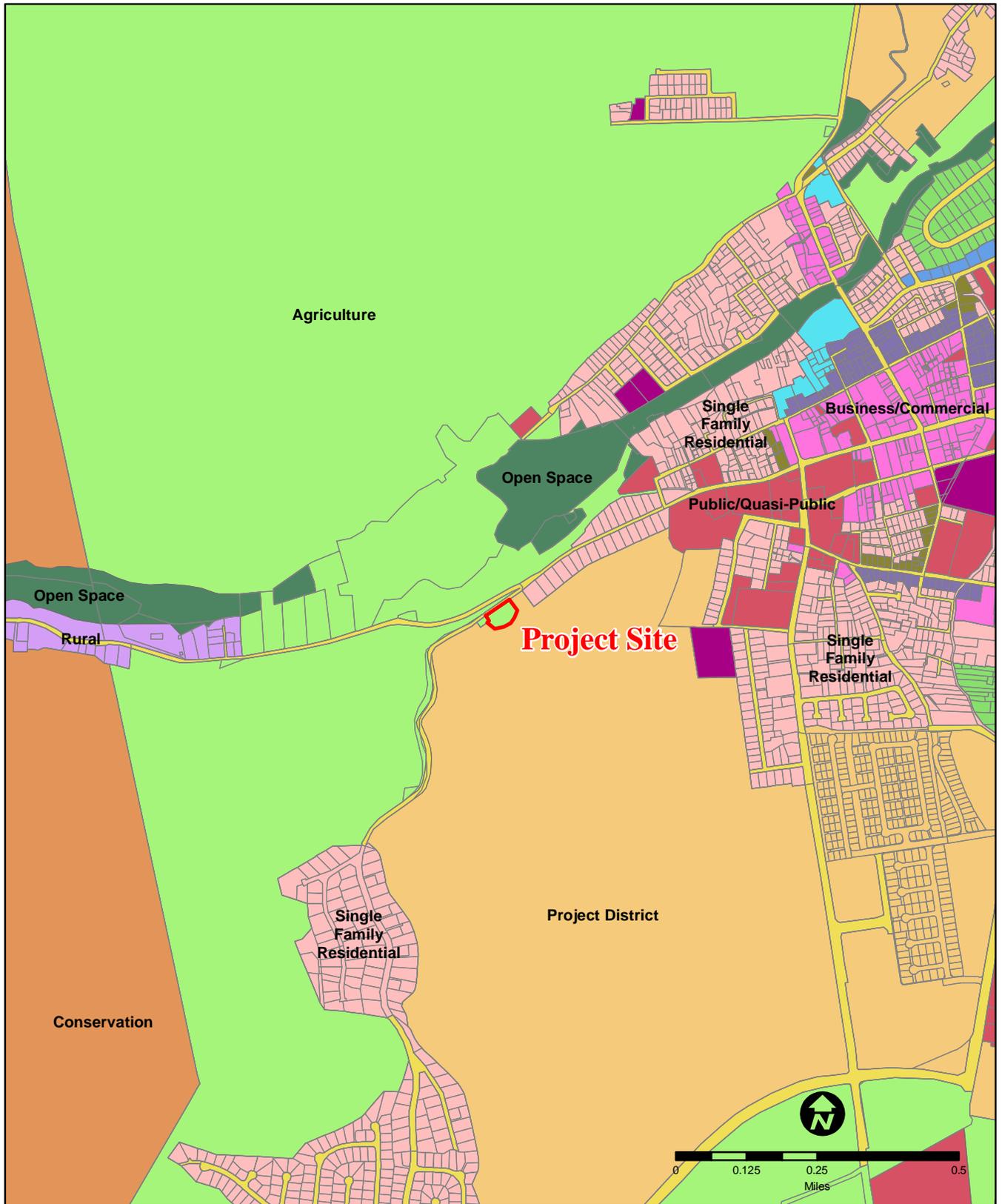
- |  |   |
|--|---|
|  Conservation |  Urban |
|  Agricultural |  Rural |

**IAO TANK SITE WELL**

COUNTY OF MAUI  
Department of Water Supply

**State Land Use**

Figure 5



**IAO TANK SITE WELL**

**Comprehensive Zoning Ordinance**

COUNTY OF MAUI  
 Department of Water Supply

Figure 6

## B. PHYSICAL FEATURES

### 1. General

The island of Maui is formed by the East and West Maui Volcanos. The Iao Aquifer lies on the West Maui Volcano and covers approximately 24.7 square miles. The Iao Aquifer boundaries are the ridge south of Waihee River and north of Kalepa Gulch extending from the coast to the summit of West Maui Mountain, the crest of West Maui Mountain, the ridge north of Waikapu Stream, and the southern divide of Iao Stream to Kahului Bay. This area is characterized by a steep and mountainous region to the west, sloping alluvial and colluvial plains extending east from the mountain, and moderate sands and coastal plains near the ocean.

### 2. Climate

The climate of Iao is generally cool and subtropical with moderate rainfall throughout the year. The project area is characteristic of the mountainous valley and is relatively moist. The average rainfall is typically 30 to 40 inches per year. See Figure 7. The variations in temperature encountered in the area range between 65 and 85° F on the average for the coolest and warmest month, respectively.

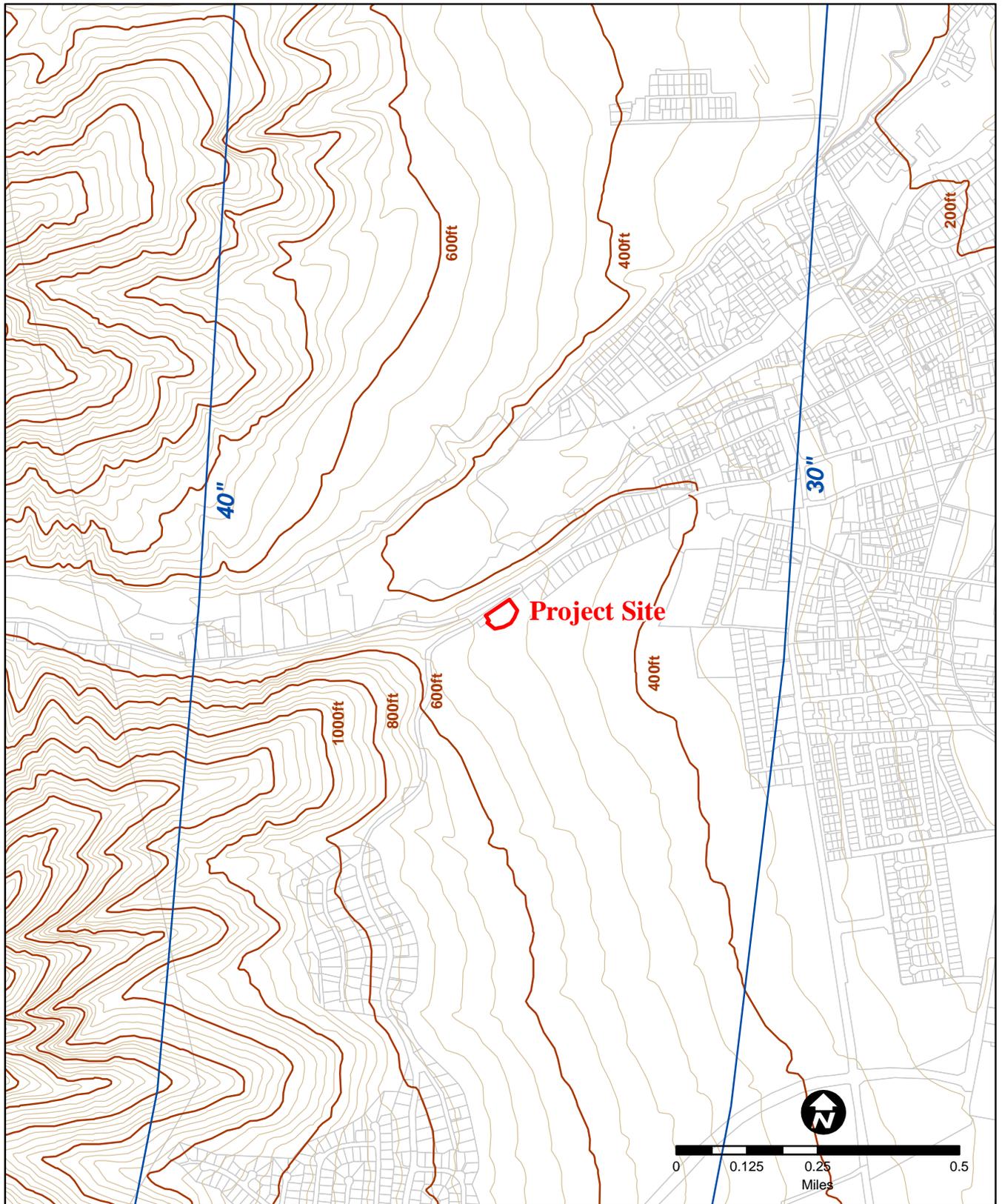
### 3. Topography

The mountainous areas have steep ridges and deep valleys that range in altitude from approximately 300 feet msl at the base to 5,788 feet msl at the summit of Puu Kukui. The proposed project site is located about 2.5 miles from the Iao Needle (2250 feet msl). The topography of the lands surrounding the project site forms a V-shape valley and has a mixture of moderate to steep slopes, ranging from 50 to 2000 feet high.

The proposed well site was leveled due to grading previously done by the County of Maui for water tank construction. The ground elevation of the 3.0 MG tank is 506 feet msl. The tank overflow elevation is 536.5 feet msl. The Iao-Waikapu Ditch water intake elevation is roughly 740 feet msl. The slope between the ditch and the tank site is approximately 9.4%. Figure 7 shows the elevations in the vicinity of the project site.

### 4. Geology

The area was formed during the Wailuku volcanic series which occurred in the Pliocene or Pleistocene era. Rock from the Wailuku volcanic series is characterized by thin-bedded aa and pahoehoe flows of primitive olivine basalt, scattered cinder cones and thin tuff beds, and numerous dikes. This rock is overlain by older alluvium from the Pleistocene and Holocene eras.



**LEGEND:**

- Annual Rainfall (inch)
- Elevation (feet)

**IAO TANK SITE WELL**

COUNTY OF MAUI  
 Department of Water Supply

**Topography and Rainfall**

Figure 7

5. Soils

According to the Soil Survey issued in 1972 by the U.S. Department of Agriculture Soil Conservation Service (USDA SCS), soils of the project site are classified as Wailuku Silty Clay, 3 to 5 percent slopes (WvB). The Wailuku series consists of well-drained soils on alluvial fans. These soils developed in alluvium derived from igneous rock. WvB soil consists of smooth alluvial fans. The soil is dark red-brown silty clay that is slightly to medium acid in the surface layer and slightly acid in the subsoil. The runoff is slow, and erosion hazard is slight. Figure 8 shows the detailed soil classification of the project site.

6. Hydrology

The U.S. Geological Survey published the Water-Resources Investigations Report 00-4223, *The Response of the Iao Aquifer to Ground-Water Development, Rainfall, and Land-Use Practices Between 1940 and 1998, Island of Maui, Hawaii*. This report interprets the regional hydrology of the Iao Aquifer, as shown on Figure 9. According to the report, “the fresh ground-water system in the Iao aquifer contains: (1) dike-impounded water, (2) a freshwater lens floating on saltwater, and (3) perched water.” The general movement of fresh ground water in the Iao Aquifer is from the dike-impounded water body into the freshwater-lens system, the brackish water transition zone, and then to the ocean. (Reference 2)

Two major ditches and nine smaller ditches were built in the early 1900’s in the Iao aquifer. Now, only six ditches are still in use. The ditches divert springs, tunnel water, and streams. The Spreckels Ditch and the Waihee Ditch are the two major ditches in the Iao Aquifer. These ditches capture about 40 mgd from Waihee River and about 6 mgd from diversions on the two forks of Waiehu Stream.

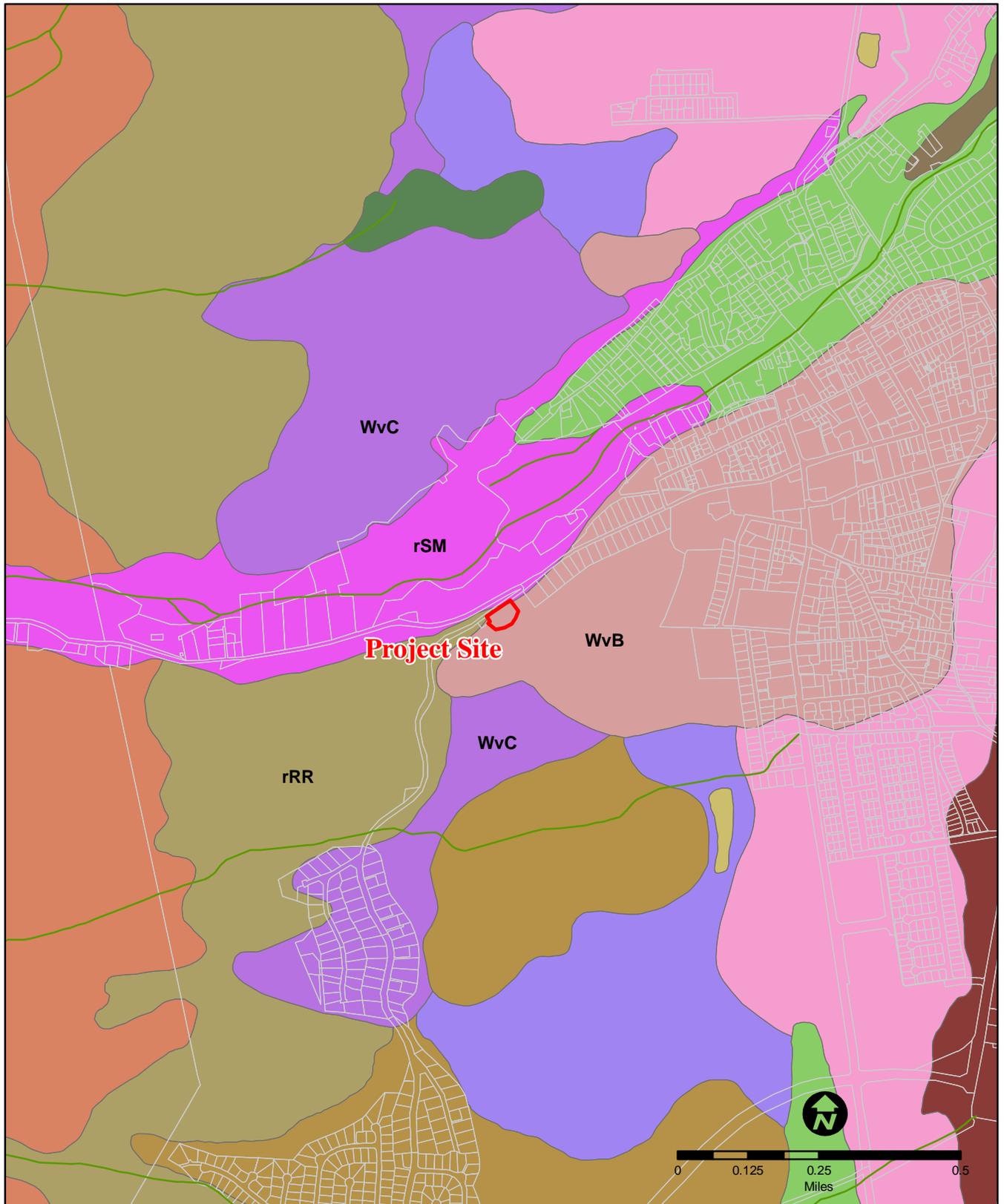
There are many wells constructed in the Iao Aquifer, as shown on Figure 10. Based on the CWRM database, the wells within the Iao Aquifer System are listed in the following table.

Table 1 – WELLS IN THE IAO AQUIFER

WELL NO	WELL NAME	OWNER USER	USE	INITIAL CHLOR	WITHDRAWAL MGD
5130-01	Waikapu 1	State DLNR-Engineering	Unused	20	
5130-02	Waikapu 2	State DLNR-Engineering	Unused	13	
5131-01	Waikapu Tank Site	Maui DWS	Muni-County		
5229-01	Waiale Prototype	A&B	Lost		
5230-01	Ka Hale A Ke Ola	Ka Hale A Ke Ola	Landscape		
5230-02	Iao Deep Monitor	State CWRM	Observation		
5230-03	Iao Tank Site	Maui DWS	Muni-County	17*	
5329-04	War Memorial Stadium	Maui Pks & Rec	Unused		
5329-05	Baldwin High Sch	Maui Pks & Rec	School		

5329-06	Baldwin High TH	Maui County	Unused	152	
5330-01	Iao Tunnel	Wailuku Sugar	Irrigation		
5330-02	Iao Tunnel	HC & S Co	Irrigation		
5330-03	Field 63	Wailuku Sugar	Observation		
5330-04	Wailuku Mill TH	Wailuku Sugar	Observation	22	
5330-05	Wailuku Shaft 33	Kehalani Mauka LLC	Muni-County		5.0
5330-06	Mokuhau TH 1	Maui DWS	Observation	280	
5330-07	Mokuhau TH 2	Maui DWS	Observation		
5330-08	Mokuhau TH 3	Maui DWS	Observation		
5330-09	Mokuhau 1	Maui DWS	Muni-County	16	2.894
5330-10	Mokuhau 2	Maui DWS	Muni-County	16	0
5330-11	Mokuhau 3	Maui DWS	Muni-County	30	1.094
5330-12	Puuhala TH-C	Wailuku Sugar	Unused		
5331-01	Iao Valley TH	Wailuku Sugar	Observation		
5332-01	Black Gorge Tun	Wailuku Sugar	Irrigation		
5332-02	Iao Tunnel	Maui DWS	Muni-County		
5332-03	Field Gorge Tunnel	Wailuku Sugar	Sealed		
5332-04	Kepaniwai TH	State DLNR-Engineering	Observation		
5332-05	Kepaniwai	Maui DWS	Muni-County	25	0.764
5333-01	Iao Needle Tunnel	Wailuku Sugar	Irrigation		
5333-02	Iao Needle Tunnel 2	Wailuku Sugar	Sealed		
5429-01	De Lara	De Lara J	Irrigation	528	
5429-02	Papohaku Park	Maui Pks & Rec	Park	60	
5430-01	Waiehu Hts 1	Maui DWS	Muni-County	52	0.222
5430-02	Waiehu Hts 2	Maui DWS	Muni-County	20	1.243
5430-03	Waiehu TH-E	Wailuku Agribusiness Co., Inc.	Observation		
5430-04	Waiehu TH-D	State DLNR-Engineering	Observation		
5430-05	Waiehu Deep Monitor	State CWRM	Observation		
5431-01	Waiehu TH-B	Wailuku Agribusiness Co, Inc.	Observation		
5431-02	Waihee 1	Maui DWS	Muni-County	15	3.204
5431-03	Waihee 2	Maui DWS	Muni-County		1.066
5431-04	Waihee 3	Maui DWS	Muni-County	189	1.683
5529-01	Waiehu TH	U S G S	Observation		
5529-02	Waiehu Golf Course	Maui Pks & Rec	Golf Course	32	
5530-01	Waiehu Tunnel	Wailuku Sugar	Observation		
5530-02	Waiehu TH	Wailuku Agribusiness Co., Inc.	Lost		
5530-03	Waiehu Golf Course 1	Maui Pks & Rec	Unused		
5530-04	Waiehu Golf Course 2	Maui Pks & Rec	Golf Course		
5531-01	Living Waters #1	Living Waters Land Foundation	Unused		
5631-01	Waihee TH A1	Wailuku Agribusiness Co., Inc.	Observation		
5631-07	Varel		Unused		
5631-08	Sarasin		Domestic		
5329-14	Maui Stadium	Maui Pks & Rec	Park	285	
5329-15	Maui Comm Col	Maui Pks & Rec	School	394	
5329-17	Wailuku Arm	U S Army	Unused		
5329-18	Waiale Obs	A&B	Observation		
5329-20	Maui Cent Park 2	Maui Pks & Rec	Park		
<b>TOTAL</b>					17.17

*(Source: CWRM Well Database as of April 2008, except \* from recent sampling and analysis)*



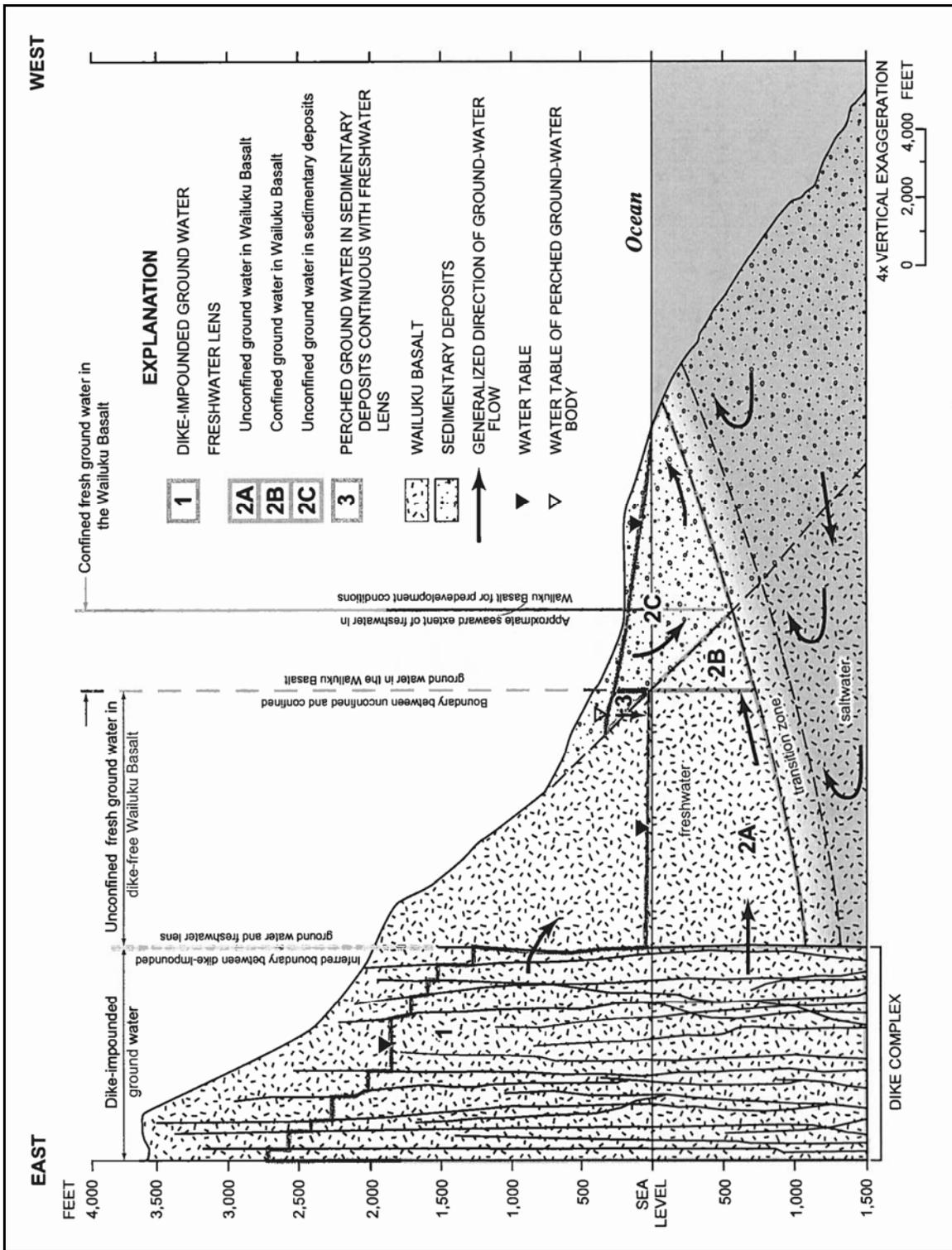
**LEGEND:** WvB: Wailuku Silty Clay, 3-7% Slopes  
 WvC: Wailuku Silty Clay, 7-15% Slopes  
 rSM: Stony Alluvial Land  
 rRR: Rough Broken Land

**IAO TANK SITE WELL**

**USDA SCS Soils Map**

COUNTY OF MAUI  
 Department of Water Supply

Figure 8



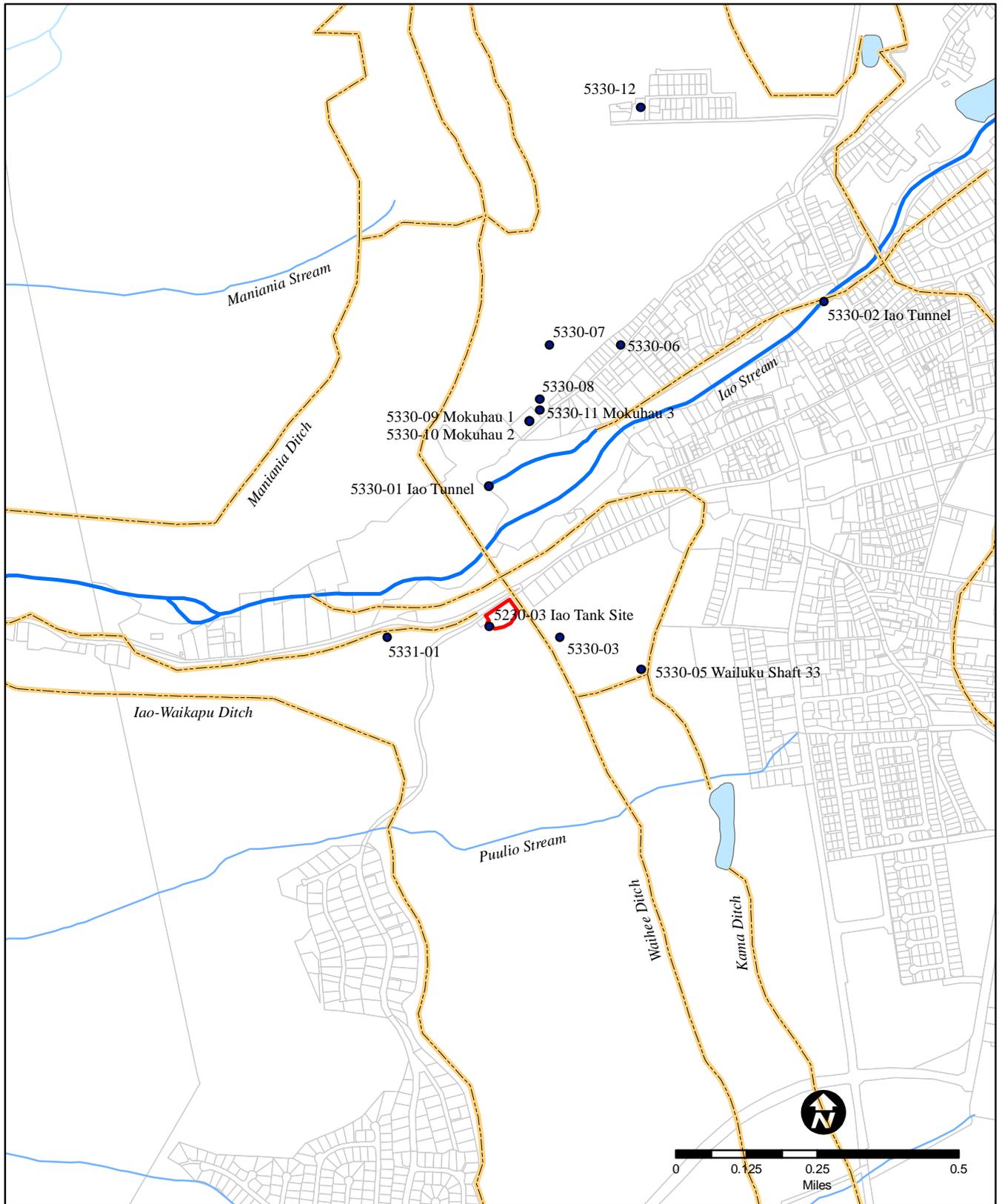
(Source: USGS Water Resources Investigations Report 00-4223)

**IAO TANK SITE WELL**

**Groundwater Occurrence and Movement**

COUNTY OF MAUI  
Department of Water Supply

Figure 9



**LEGEND:** ● Well ID (& Name)  
 — Stream  
 — Ditch  
 ○ Reservoir

**IAO TANK SITE WELL**

**Wells, Streams, and Ditches**

COUNTY OF MAUI  
 Department of Water Supply

Figure 10

7. Wetland

The U.S. Department of Interior, Fish and Wildlife Service “National Wetlands Inventory Maps 1978” does not identify any wetland in the vicinity of the project site.

8. Water Quality

“The Water Quality Standards Map” published by the State of Hawaii Department of Health, Office of Environmental Planning classifies the project site as Class II inland classification. (*Reference 8*)

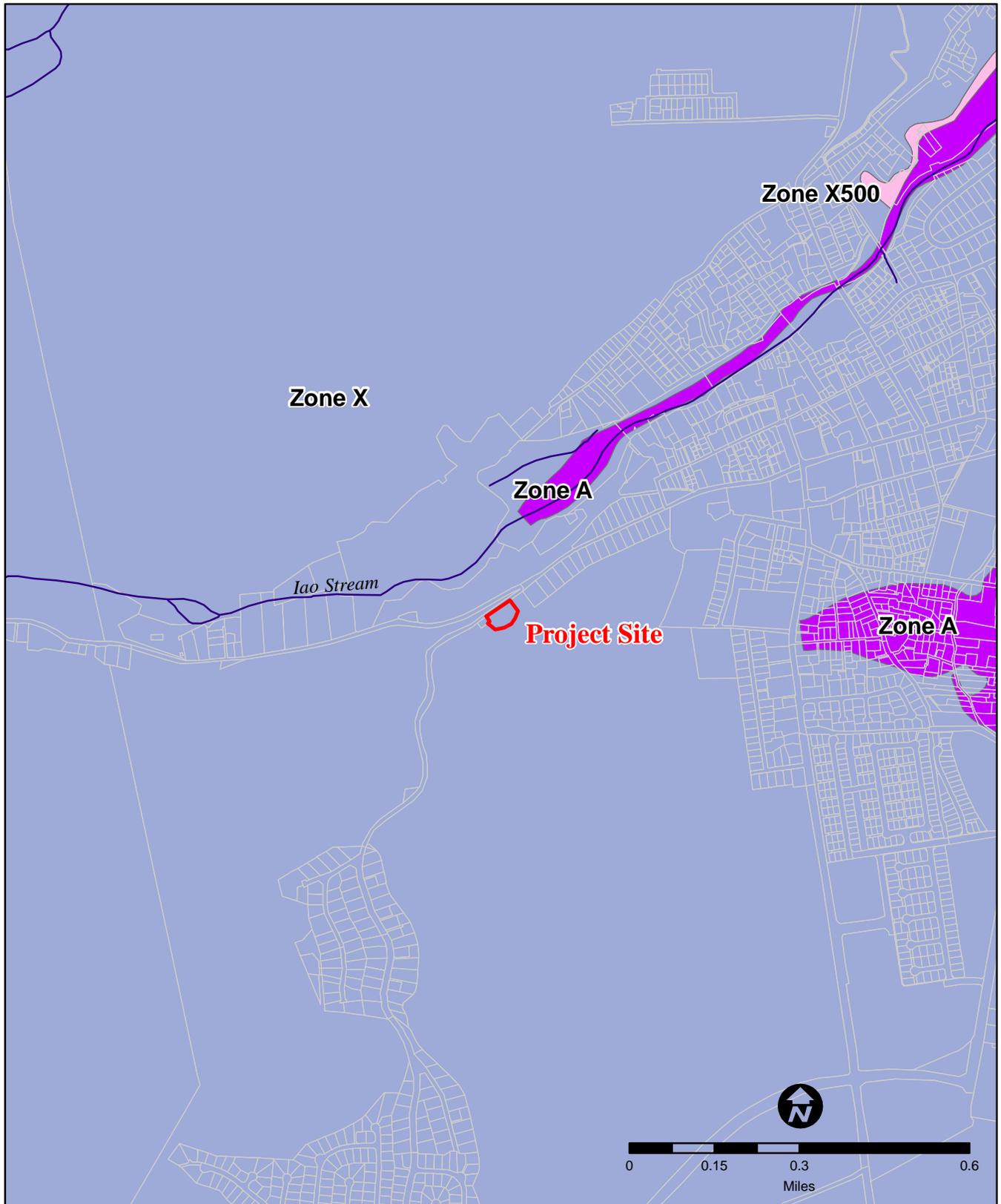
9. Flood and Tsunami

Iao Stream runs by the project area. The Digital Flood Insurance Rate Map (FIRM), a digital flood data scanned and compiled by the Federal Emergency Management Agency (FEMA), indicates that the project site is determined to be Zone X, outside of the 100-year floodplain. The proposed project will have no effect on existing flood areas. Figure 11 shows the flood zones for the vicinity of the project site. (*Reference 11*)

Recent Tsunami Evacuation Maps, as published by the Civil Defense Agency, indicate that the proposed site is not currently in a Tsunami Evacuation Zone. In the event of a tsunami warning, people in all areas within the Tsunami Evacuation Zone must be evacuated and follow additional instructions issued by the Civil Defense Agency.

C. SURFACE WATER QUALITY

The Iao Tank Site Well will withdraw water from the underground freshwater aquifer. Pumping from the deep aquifer will not affect surface water quality.



**LEGEND:**

- █ Zone A: 1% Annual Chance/100 Year Floodplain
- █ Zone X500: 0.2% Annual Chance/500 Year Floodplain
- █ Zone X: determined to be outside the 1% and 0.2% annual chance floodplains

*Source: Scanned and compiled by FEMA from 1:24,000 Digital Flood Insurance Rate Maps (DFIRMs).*

**IAO TANK SITE WELL**

**FLOOD INSURANCE RATE MAP (FIRM)**

COUNTY OF MAUI  
Department of Water Supply

Figure 11

#### D. ARCHAEOLOGICAL AND HISTORICAL CONSIDERATIONS

The Iao Treatment Facility was constructed and connected to the 3.0 MG water tank within the same property at TMK 3-5-01:021. According to the final Environmental Assessment, “*Iao Treatment Facility and Pipeline*,” the proposed project site was previously inspected by personnel from the State Historic Preservation Division before the existing water treatment facility was constructed. No historic sites and records were found within the area. (*Reference 9*) If construction work uncovers any archaeological remains, work will stop immediately and the State Historic Preservation Division and the Maui Island Burial Council will be contacted.

Current tax maps show no record of Land Commission Awards (LCAs) on the project site. The presence of LCAs is one indicator of native Hawaiian activities or presence in the mid to later half of the nineteenth century. (*Reference 9*)

The Iao Tank site, operated by DWS for years, is fenced to control access for security, public health, and safety. This project will not alter the use of the site, as it will continue to serve as a water service facility. The 1.326 acre tank site has no trails, streams, caves, native plants, or other cultural resources on the site.

#### E. FLORA AND FAUNA

The site has been previously disturbed. The area is currently covered with various weeds and grass. There is a large monkey-pod tree on the property. The surrounding residential area is planted with fruit trees, vegetable gardens, common landscaping trees, bushes and ornamental plants. No critical or endangered flora is found at the site.

Common animals found in this area are dogs, cats, mongoose and rodents. Typical avifauna found in the area is mynas, sparrows, cardinals, doves, and finches. A few native birds are considered to be endangered in the area. The Hawaiian owl might visit the site, but would spend most of its time further upland. The Golden Plover is another potential visitor to the site. (*Reference 9*)

Since the project site was cleared of tall trees, graded, and fenced, there is no known critical, endangered, or threatened plant and animal habitat on the project site. The plants and animals in the surrounding area will not be affected by the proposed property.

## IV. PROBABLE IMPACTS AND MITIGATIVE MEASURES

### A. SHORT TERM IMPACTS

Short term impacts are associated with the construction activities at the project site. The impacts are not anticipated to be significant; and will be controlled and minimized by Federal, State, and County of Maui laws, regulations, best management practices, permit requirements and monitoring of construction by County inspectors.

1. Air Quality  
(*Clean Air Act, Pub.L. 84-159, as amended*)

There will be a temporary increase in dust, and vehicular and equipment exhaust emissions in the vicinity of the project areas during construction; however, dust resulting from construction is anticipated to be minimal. The Contractor will be required to comply with Hawaii Administrative Rules, Chapter 11-60.1, "Air Pollution Control." and Section 11-60.1-33, "Fugitive Dust." Dust control will be maintained by sprinkling with water when needed. Exhaust emission should not have any significant effect on the area because prevailing winds should disperse any exhaust gas concentration.

2. Erosion

The Contractor will be required to implement erosion and sediment control measures during the construction as appropriate.

3. Surface Water Quality

No impacts on surface water quality resulting from the construction of this project are anticipated. A National Pollutant Discharge Elimination System (NPDES) permit is not required because the contiguous area to be disturbed by construction activities is less than one acre. In addition, no discharge to navigable waters is anticipated. Through the permitting process, the Contractor will be required to propose construction Best Management Practices (BMPs) for approval.

4. Traffic

Temporary impacts to traffic may occur during the construction of the improvements. There will be an increase in vehicles entering and exiting the site during construction.

5. Noise

There will be an increase in noise from the construction activities. However, the work will be limited to normal working hours. The Contractor will be required to comply with the requirements of the Department of Health Hawaii Administrative Rules, Chapter 11-46, "Community Noise Control."

B. LONG TERM IMPACTS

Long term impacts are generally those impacts related to the operation of the proposed development. Appropriate design, and competent, efficient, and effective operations and maintenance will mitigate any potential negative long term impacts associated with the implementation of the project.

1. Water Quality

a. Surface Water

The closest possible surface water source is the Iao Stream, which is located approximately 600 feet away. Therefore, no impacts to surface waters are anticipated.

b. Ground Water

*(Safe Drinking Water Act, Pub.L. 93-523, as amended)*

The Iao Tank Site Well meets the DOH Safe Drinking Water standards. This has been confirmed with the pump and sample testing, and the water quality will continue to be monitored by DWS and DOH to ensure continued compliance.

In addition, this well will help maintain the lower salinity level of groundwater and prevent conic depressions on the aquifer basal.

2. Agricultural Land

*(Farmland Protection Policy Act, Pub.L. 97-98)*

The Iao Tank Site Well is located on the existing Iao Tank Site. There is adequate area for the well development facilities, and the fenced site will not be expanded.

The CZO requires that the proposed project is not detrimental to health, safety, peace, morals, comfort and general welfare to the public; does not cause any substantial harmful environmental consequences; and will not be inconsistent with the intent of the General Plan. The proposed project is consistent with the current

use of the area; therefore, the proposed improvement project will not adversely impact its surroundings.

3. Coastal Zone Management  
(*Coastal Zone Management Act, Pub.L. 92-583, as amended*)

The proposed project is not located within the coastal zone Special Management Area.

4. Floodplain Management  
(*Floodplain Management, Executive Order 11988, as amended by Executive Order 12148*)

The project site is determined to be outside of the 100-year floodplain; therefore, no impact will be anticipated.

5. Flora and Fauna  
(*Endangered Species Act, Pub.L. 93-205, as amended and Fish and Wildlife Coordination Act, Pub.L. 85-624, as amended*)

There are no indications of rare or endangered flora or fauna in the project area. The specific project area has already been highly disturbed and developed. Therefore, no negative impacts to existing plants and animals are anticipated.

6. Air Quality  
(*Clean Air Act, Pub.L. 84-159, as amended*)

No long term negative impacts on air quality resulting from the proposed project are anticipated.

7. Visual and Auditory Impacts

The visual impacts of the proposed project area are not expected to be significant. The new facilities will be painted in light earth tone colors to minimize visual impact.

Noise conditions from pump operations and maintenance will be typically quiet to moderate. This noise level is estimated to be about 40-45 Dba. However, the project area is surrounded by non-native forest and bush, and there is a difference in elevation between the site and the residential area. The noise impacts are not anticipated to be a problem.

8. Archeological and Historical Sites

*(Archaeological and Historic Preservation Act of 1974, Pub.L. 86-523, as amended and National Historic Preservation Act, Pub.L. 89-665, as amended)*

There is no historically significant structure on the proposed project site. In addition, since the project will be in an area that has been previously disturbed, no adverse effect on significant historic areas or human burials is anticipated. If necessary, construction and the required mitigation plans will be coordinated with the State Historic Preservation Division, the Maui Burial Council and the Office of Hawaiian Affairs, in accordance with the Hawaii Revised Statutes and the Hawaii Administrative Rules, to minimize any long term negative impacts on historic sites.

9. Public Health and Safety

Public health and safety will be a priority of this project. Monitoring will be conducted to ensure protection of public health and safety. State DOH regulations will be followed; therefore, no public health or safety problems associated with the system improvements are anticipated.

## V. ALTERNATIVES TO THE PROPOSED PROJECT

### A. NO ACTION ALTERNATIVE

The current County DWS pumping protocol causes an increasing chloride concentration and lifts the freshwater-saltwater transition zone in the aquifer in the localized areas surrounding the existing well sites. The well needs to be developed to distribute the pumping more evenly over the Iao Aquifer. Not doing this project could lead to the long-term degradation of the water source.

### B. ALTERNATIVE LOCATION

The proposed project site was selected, based on hydrologic, hydro-geologic, land ownership and availability, and engineering studies. An exploratory well was previously drilled and tested successfully, and this exploratory well will be outfitted and converted into the prototype well. An alternative location would mean abandoning the existing exploratory well and the substantial capital investment already incurred. Therefore, an alternative location has not been considered.

### C. ALTERNATIVE WATER SOURCES

#### 1. Increasing Capacity of Water Treatment Facility

One method to increase water availability is to upgrade the capacity of the water treatment facility in the vicinity of the project site. The water diverted into the facility is mainly from the Iao Tunnel intake and diversions, and this surface water requires expensive treatment to satisfy the safe drinking water standards. This alternative would involve expanding the facility and would require frequent maintenance; therefore, this alternative will be more expensive than the proposed project. In addition, the availability of water at the intake and diversions will vary depending on seasonal conditions. The water production will not be as stable as withdrawing water from the basal aquifer. The increase of withdrawals requires an agreement between the owner of the ditch system and the County of Maui.

#### 2. Refurbish Wailuku Shaft

Restoration of the backup pump at the existing Wailuku Shaft was also considered as an alternative. However, due to the length and slope of the shaft, the wells are difficult to access. (*Reference 10*) DWS must acquire the consent of the owner of the Shaft. In addition, this method will not be able to resolve the increasing salinity levels and lifting the freshwater-saltwater transition zone. Therefore, restoring Wailuku Shaft was not considered feasible.

## **VI. PERMITS AND APPROVALS REQUIRED**

Several permits, approvals and clearances may be required for the recommended improvements from the County of Maui and the State of Hawaii.

### **A. APPROVALS**

- State Department of Health
- State Office of Environmental Quality Control  
Environmental Assessment for Iao Tank Site Well
- County of Maui Department of Water Supply  
Environmental Assessment for Iao Tank Site Well

### **B. PERMITS**

- National Pollutant Discharge Elimination System Permit, State of Hawaii, Department of Health (if required by Contractor's construction method)
- Pump Installation Permit, State Commission on Water Resource Management
- Grading, Building, and Electrical Permit, County of Maui Department of Public Works

### **C. REVIEWS**

- State Commission on Persons with Disabilities  
Plans and Specifications conformance with American Disabilities Act

## **VII. AGENCIES AND ORGANIZATIONS CONSULTED**

The following agencies were consulted directly or indirectly during the preparation of this document.

- County of Maui, Department of Water Supply
- State Commission on Water Resource Management
- Department of Business, Economics, Development and Tourism
- County of Maui, Department of Environmental Management
- State Department of Health
- State Department of Land and Natural Resources
- State Department of Park and Recreation
- County of Maui, Department of Planning
- County of Maui, Department of Public Works
- Kehalani Mauka, LLC
- Office of Hawaiian Affairs

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

There are several irreversible commitments of resources including land and financial resources to construct capital improvements, and to operate and maintain the well and various controls. Land commitment for the well is minimal. Financial commitment for capital improvements and operations and maintenance are necessary.

The long-term responsibility of the Department of Water Supply to provide adequate water supplies to Central Maui supports the implementation of the proposed project; therefore, the commitment of land, labor, materials, energy, equipment and financial resources that are practically irreversible and irretrievable are warranted.

## IX. FINDINGS AND DETERMINATION

### A. FINDINGS

Based upon the guidelines and provisions of Significance Criteria listed in §11-200-12 Environmental Impact Statement Rules and Chapter 343, Hawaii Revised Statutes (HRS), the findings of this environmental assessment are:

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

Loss or destruction of a natural or cultural resource is not anticipated. The proposed site has already been disturbed during the construction of the existing 3.0 MG tank. As described in this assessment, there was no archaeological finding by the State Historic Preservation Division, and the Maui Island Burial Council. In case of any finding of archaeologically significant resources during construction, mitigation measures will be implemented under instruction from the State Historic Preservation Division.

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

The proposed project will enhance management of the groundwater resource and will protect the source for future water demands; therefore, it will enhance the beneficial use of the environment.

3. Conflict with the State's long term environmental policies or goals and guidelines as expressed in Chapter 344, Hawaii Revised Statutes, and revisions thereof and amendments thereto, court decisions or executive orders:

The proposed project is in accordance with the guidelines set forth in the State Environmental Policy Chapter 344, HRS, and the National Environmental Policy Act.

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

The proposed project will protect the groundwater resources and provide potable water to the expanding communities. To ensure safe drinking water sources will enhance the welfare of the community.

5. Substantially affects public health:

The new well will provide a new safe drinking water source for the Central Maui Water System, and this is necessary to maintain the public health.

6. Involves a substantial secondary impact, such as population changes or effects on public facilities:

The proposed project will not encourage new population growth. Substantial secondary impacts are not anticipated by this proposed project.

7. Involves a substantial degradation of environmental quality:

The proposed project will not involve any substantial degradation of environmental quality. As described in this assessment, the impacts on the environment are generally beneficial, and negative impacts are minimal.

8. Individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions:

As described in this assessment, the proposed project does not have any significant impacts or effects upon the environment or involve any commitment for larger actions.

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

There are no identified endangered or critical species of flora and fauna in the vicinity of the project site that would be disturbed.

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

The proposed project will have positive impacts on decreasing salinity levels in the Iao Aquifer by spreading out the withdrawal of groundwater. This project will not detrimentally affect air or water quality, or ambient noise levels.

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

The proposed project is not located within any flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater or coastal waters. The proposed project does not detrimentally affect any environmentally sensitive area.

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

The visual impacts of the proposed project area are not expected to be significant. The work will be done on an existing site, and improvements will be at underground or buried.

13. Requires substantial energy consumption:

The operation of pumping groundwater requires some energy consumption; however, this is a necessary public utility for the public. The pump and related equipment will be designed to be as energy efficient as possible.

B. DETERMINATION

Based upon the above findings and considerations, the proposed project is not anticipated to have significant adverse environment impacts on the historic sites, coastal waters, local ecology, hydrology and atmosphere. Mitigation measures will be implemented as deemed necessary and as required by the government agencies. A Finding of No Significant Impact (FONSI) determination is anticipated. Therefore, an Environmental Impact Statement is not required.

## **X. REFERENCES**

1. State of Hawaii Commission on Water Resource Management. "Hearings Officer's Findings of Fact, Conclusions of Law, and Decision and Order in the Matter of Water Use Permit Applications For the Iao Ground Water Management Area Basal Source Contested Case Hearing (CCH-MA05-1)." August 11, 2006.
2. U.S. Geological Survey. "The Response of the Iao Aquifer to Ground-Water Development, Rainfall, and Land-Use Practices Between 1940 and 1998, Island of Maui, Hawaii" January 2001.
3. Water Resource Associates. "Results of Drilling and Testing – Iao Tank Exploratory Well (5230-03) Wailuku, Maui, Hawaii" January 2006.
4. State of Hawaii Commission on Water Resource Management. "Consultation for Draft EA – Iao Tank Site Pump Installation (Well No. 5230-03)" June 4, 2008.
5. Maui County Council. Wailuku-Kahului Community Plan (2002). 2002.
6. Commission on Water Resource Management & Department of Land and Natural Resources, State of Hawaii. Maui County Water Use and Development Plan. February 1992.
7. County of Maui, Department of Planning. Maui General Plan 1990. <<http://www.co.maui.hi.us/departments/Planning/generalPlan1990.htm>>
8. Department of Health. Hawaii's Water Quality-Limited Waters: The 1997 Assessment 1997.
9. Maui County Board of Water Supply. Final Environmental Assessment "Iao Treatment Facility and Pipeline" June 1997.
10. Maui County Board of Water Supply. Final Environmental Assessment "Iao Tank Exploratory Well" December 2003.
11. Digital Flood Insurance Rate Map. 2007. The Office of Planning, State of Hawaii. Also available at National Flood Insurance Program, Flood Hazard Assessment Tool <<http://gis.hawaiiinfip.org/fhat/>>

**APPENDIX A**

AGENCY COMMENTS ON PRE-ASSESSMENT CONSULTATION  
AND DRAFT ENVIRONMENTAL ASSESSMENT

LINDA LINGLE  
GOVERNOR OF HAWAII



LAURA H. THIELEN  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

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DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

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HONOLULU, HAWAII 96809

STATE OF LAND &  
NATURAL RESOURCES  
STATE OF HAWAII

May 2, 2008

MEMORANDUM

TO:

**DLNR Agencies:**

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

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STATE OF HAWAII

08 MAY -6 11:05:11

RECEIVED

FROM:

*for* Morris M. Atta *Maile*

SUBJECT:

Pre-Assessment Consultation for Draft Environmental Assessment –  
Iao Tank Site Well Development

LOCATION: Maui, Hawaii: TMK: (2) 3-5-001:021

APPLICANT: County of Maui, Department of Water Supply

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by May 21, 2008.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

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

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

*Paul J. Conry*

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

**PAUL J. CONRY, ADMINISTRATOR**

**DIVISION OF FORESTRY AND WILDLIFE**

MAY - 6 2008

cc: Central Files



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MAUI DISTRICT  
LAND DIVISION

2008 MAY -6 PM 12:48



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

May 2, 2008

MEMORANDUM

TO: **DLNR Agencies:**  
 Div. of Aquatic Resources  
 Div. of Boating & Ocean Recreation  
 Engineering Division  
 Div. of Forestry & Wildlife  
 Div. of State Parks  
 Commission on Water Resource Management  
 Office of Conservation & Coastal Lands  
 Land Division – Maui District

FROM: *for* Morris M. Atta *Marlene*  
SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment –  
Iao Tank Site Well Development  
LOCATION: Maui, Hawaii: TMK: (2) 3-5-001:021  
APPLICANT: County of Maui, Department of Water Supply

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by **May 21, 2008**.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

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

Signed: *DD*  
Date: 5/7/08

cc: Central Files

CHARMAINE TAVARES  
Mayor

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

MICHAEL M. MIYAMOTO  
Deputy Director

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



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

CARY YAMASHITA, P.E.  
Engineering Division

BRIAN HASHIRO, P.E.  
Highways Division

COUNTY OF MAUI  
**DEPARTMENT OF PUBLIC WORKS**  
200 SOUTH HIGH STREET, ROOM NO. 434  
WAILUKU, MAUI, HAWAII 96793

May 8, 2008

Mr. Andrew L. Amuro, Engineer  
FUKUNAGA & ASSOCIATES, INC.  
1388 Kapiolani Boulevard, 2<sup>nd</sup> Floor  
Honolulu, Hawaii 96814

Dear Mr. Amuro:

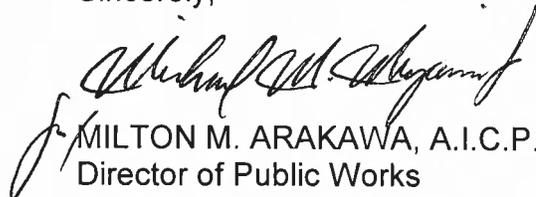
**SUBJECT: PRE-ASSESSMENT CONSULTATION FOR DRAFT  
ENVIRONMENTAL ASSESSMENT FOR IAO TANK SITE  
WELL DEVELOPMENT**

We reviewed the subject application and have the following comment:

1. Obtain all necessary building permits.

Please call Michael Miyamoto at (808) 270-7845 if you have any questions regarding this letter.

Sincerely,



MILTON M. ARAKAWA, A.I.C.P.  
Director of Public Works

MMA:MMM:ls

xc: Highways Division  
Engineering Division

S:\LUCA\CZM\Preconsult\_lao\_tank\_well\_dev\_dea\_35001021\_ls.wpd

RECEIVED  
LAND DIVISION

2008 MAY 21 A 10:26



LAI'RA H. THIELEN  
CHAIRPERSON  
MEREDITH J. CHING  
JAMES A. FRAZIER  
NEAL S. FUJIWARA  
CHIYOME L. FUKINO, M.D.  
DONNA FAY K. KIYOSAKI, P.E.  
LAWRENCE H. MIIKE, M.D., J.D.

KEN C. KAWAHARA, P.E.  
DEPUTY DIRECTOR

DEPT. OF LAND  
NATURAL RESOURCES  
STATE OF HAWAII

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

P.O. BOX 621  
HONOLULU, HAWAII 96809

May 19, 2008

REF: laoTankPIP.EA

TO: Morris Atta, Acting Administrator  
Land Division

FROM: Ken C. Kawahara, P.E., Deputy Director  
Commission on Water Resource Management

SUBJECT: lao Tank Site Well (5230-03) Pump Installation DEA

FILE NO.: TMK: (2) 3-5-001:021

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

Our comments related to water resources are checked off below.

- 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.
- 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- 3. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

Permits required by CWRM: Additional information and forms are available at [www.hawaii.gov/dlnr/cwrm/forms.htm](http://www.hawaii.gov/dlnr/cwrm/forms.htm).

- 4. The proposed water supply source for the project is located in a designated ground-water management area, and a Water Use Permit is required prior to use of ground water.
- 5. A Well Construction Permit(s) is (are) required before the commencement of any well construction work.
- 6. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.

May 19, 2008

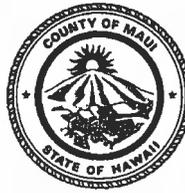
- 7. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.
- 8. Ground-water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- 9. A Stream Channel Alteration Permit(s) is (are) required before any alteration can be made to the bed and/or banks of a stream channel.
- 10. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is constructed or altered.
- 11. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.
- 12. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.
- 13. We recommend that the report identify feasible alternative non-potable water resources, including reclaimed wastewater.
- OTHER:

The well construction permitting portion of this project is complete. The DEA step precedes application for the pump installation permit. This well is proposed to shift current pumpage from the Wailuku Shaft to other wells to reduce concentrated pumping effects in this portion of the basal aquifer. A water use permit has been approved for 0.498 mgd from this well.

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

CI:ss

CHARMAINE TAVARES  
Mayor



TAMARA HORCAJO  
Director

ZACHARY Z. HELM  
Deputy Director

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

## DEPARTMENT OF PARKS & RECREATION

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

May 21, 2008

Fukunaga & Associates Inc  
Attention: Andrew L. Amuro  
1388 Kapiolani Blvd 2<sup>nd</sup> floor  
Honolulu, Hawaii 96814

Dear Mr. Andrew L. Amuro

Subject: Pre Assessment Consultation for Draft Environmental Assessment - Iao Tank Site Well Development

We have reviewed the Pre Assessment Consultation for Draft Environmental Assessment - Iao Tank Site Well Development , and we have no comments or objections to the subject project.

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

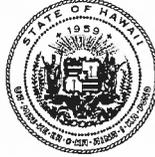
Sincerely,

A handwritten signature in black ink, appearing to read "Tamara Horcajo", written over a horizontal line.

For TAMARA HORCAJO  
Director, Parks & Recreation

xc: Patrick Matsui, Chief of Planning & Development

TH:PM:ak



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

HRD08/1395B

May 22, 2008

Andrew Amuro, Engineer  
Fukunaga & Associates, INC.  
1388 Kapi'olani Blvd., 2nd Floor  
Honolulu, Hawaii 96814

**RE: Request for comments on the pre-assessment consultation for a Draft Environmental Assessment (DEA), proposed I'ao tank site well development project Maui, TMK: 3-5-01:21.**

Aloha e Andrew Amuro,

The Office of Hawaiian Affairs (OHA) is in receipt of the above-mentioned letter dated April 28, 2008. OHA has reviewed the project and offers the following comments.

OHA realizes that in Hawai'i water is a source of wealth, the law and life. Water is also an integral part of our culture, and is a kinolau or bodily manifestation of the divine. Water in the western sense is known as a public trust resource and under the Hawai'i Constitution, article XI, section 1, creates a burden for those who want to use it. For such persons, they must demonstrate that their use will not significantly harm the resource, or if it will harm it, that the proposed use is consistent with the purposes of the trust. Further, the public trust doctrine deems "Native Hawaiian and traditional and customary rights" as public trust purposes.<sup>1</sup>

As such, OHA looks forward to reviewing this proposal and providing comments on all of the potential impacts to our beneficiaries that may present themselves and also hoping to better shape this proposed project, should it go forward.

Thank you for the opportunity to comment. If you have further questions, please contact Grant Arnold (808) 594-0263 or e-mail him at [granta@oha.org](mailto:granta@oha.org).

'O wau iho nō me ka 'oia'i'o,

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

Clyde W. Nāmu'o  
Administrator

C: OHA Maui CRC Office

---

<sup>1</sup> In re Waiahole Ditch Combined Contested Case Hearing, 94 Haw. at 137, 9 P.3d at 449.



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

May 22, 2008

Fukunaga & Associates, Inc.  
1388 Kapiolani Boulevard, 2nd Floor  
Honolulu, HI 96814

Attention: Mr. Andrew L. Amuro, Engineer

Dear Mr. Amuro:

SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment –  
Iao Tank Site Well Development; Maui, Hawaii; TMK: (2) 3-5-001:021

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comments.

At this time, enclosed are comments from (a) Engineering, (b) Forestry & Wildlife, (c) Commission on Water Resources, and (d) Maui District office of the Land Division on the subject matter. Should you have any questions, please feel free to call my office at 587-0433. Thank you.

Sincerely,

  
Morris M. Atta  
Administrator

Enclosure(s)

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

LD/

Ref.: DEA Pre-consultation Letter for Iao Tank Site Well Development Project  
Maui.005

**COMMENTS**

- ( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone \_\_\_\_.
- (X) **Please take note that the project site, according to the Flood Insurance Rate Map (FIRM) with Community-Panel No. 150003 0170 B, dated June 1, 1981, is located in Zone C. The National Flood Insurance Program does not have any regulations for developments within Zone C.**
- ( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is \_\_\_\_.
- ( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

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

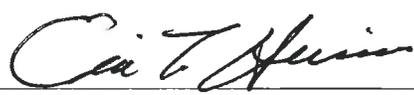
- ( ) Mr. Robert Sumimoto at (808) 523-4254 or Mr. Mario Siu Li at (808) 523-4247 of the City and County of Honolulu, Department of Planning and Permitting.
  - ( ) Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emler at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.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

( ) Additional Comments: \_\_\_\_\_

( ) Other: \_\_\_\_\_

Should you have any questions, please call Mr. Dennis Imada of the Planning Branch at 587-0257.

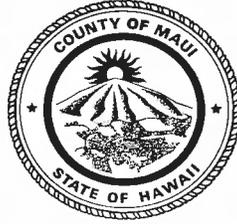
Signed: \_\_\_\_\_

  
ERIC T. HIRANO, CHIEF ENGINEER

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

5/2/08

CHARMAINE TAVARES  
Mayor  
CHERYL K. OKUMA, Esq.  
Director  
GREGG KRESGE  
Deputy Director



TRACY TAKAMINE, P.E.  
Solid Waste Division  
DAVID TAYLOR, P.E.  
Wastewater Reclamation  
Division

**COUNTY OF MAUI  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT**

2200 MAIN STREET, SUITE 175  
WAILUKU, MAUI, HAWAII 96793

May 23, 2008

Mr. Andrew Amuro  
Engineer  
Fukunaga & Associates, Inc.  
1388 Kapiolani Blvd., 2<sup>nd</sup> Floor  
Honolulu, Hawaii 96814

**SUBJECT: IAO TANK SITE WELL DEVELOPMENT  
EARLY CONSULTATION DRAFT EA  
TMK (2) 3-5-001:021, WAILUKU, MAUI**

Dear Mr. Amuro,

We reviewed the subject project as a pre-application consultation and have the following comments:

1. Solid Waste Division comments
  - a. None.
2. Wastewater Reclamation Division comments:
  - a. None.

If you have any questions regarding this memorandum, please contact Gregg Kresge at 270-8230.

Sincerely,

A handwritten signature in black ink that reads "Cheryl K. Okuma".

Cheryl Okuma, Director

MEMORANDUM

RECEIVED  
LAND DIVISION

To: Morris Atta  
Land Division

2008 JUN -2 A 9: 55

From: Dan Polhemus *DP*  
Aquatic Resources

DEPT. OF LAND &  
NATURAL RESOURCES  
STATE OF HAWAII

Subject: Pre-Assessment Consultation for Draft Environmental Assessment -  
Iao Tank Site Well Development

We have no objections

We have no comments

Comments are attached

Date: 6-2-08

DIVISION OF AQUATIC RESOURCES - MAUI  
DEPARTMENT OF LAND & NATURAL RESOURCES  
130 Mahalani Street  
Wailuku, Hawai'i 96793  
May 28, 2008

To: Alton Miyasaka & Richard Sixberry, Aquatic Biologists  
From: Skippy Hau, Aquatic Biologist  
Subject: Pre-Assessment Consultation for Draft Environmental Assessment -  
Iao Tank Site Well Development (DAR 1603) TMK: (2) 3-5-001:021

(Received on May 20, 2008; Comments to Morris Atta (Land) by May 21, 2008)

The Iao Tank Site Well was completed in September 2005. What is the sustainable quantity of water that can be produced from this well? During the testing of this well, was there any impact on the flow in 'Iao Stream? Will this water be mixed with surface treated water?

Please identify all of the wells in the Iao watershed. Current levels of pumping do not appear to be sustainable.

In my personal observations since the mid1980s, the stream appears to be decreasing and water appears to be standing in certain locations of the stream by Kepaniwai Park. At one time there was a waterfall above the debris basin. Stream flow is intermittent in that part of the stream.



LAURA H. THIELEN  
CHAIRPERSON  
MEREDITH J. CHING  
JAMES A. FRAZIER  
NEAL S. FUJIWARA  
CHIYOME L. FUKINO, M.D.  
DONNA FAY K. KIYOSAKI, P.E.  
LAWRENCE H. MIIKE, M.D., J.D.  
KEN C. KAWAHARA, P.E.  
DEPUTY DIRECTOR

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

June 4, 2008

Mr. Andrew Amuro  
Fukunaga & Associates, Inc.  
1388 Kapiolani Boulevard, 2<sup>nd</sup> Floor  
Honolulu, HI 96814

Dear Mr. Amuro:

Consultation for Draft EA  
Iao Tank Site Pump Installation (Well No. 5230-03)

Thank you for your request dated April 28, 2008, for comments on the captioned well.

As noted in your letter, the well construction phase is successfully completed. Maui Department of Water Supply (MDWS) has yet to apply for a pump installation permit, which we would expect to follow successful completion of the HRS Chapter 343 requirements.

This project is intended to begin the replacement of Wailuku Shaft, a major source of drinking water that poses safety concerns for operators and creates drawdown concerns in the basal aquifer in the Iao Aquifer System Area. New wells may be spaced to spread the total pumpage and better protect the aquifer from localized overpumpage.

The MDWS is currently operating its basal wells in the Iao Aquifer within the amounts approved as existing as of July 21, 2003, the date when the Iao Aquifer System Area was designated a ground water management area. MDWS may transfer allocations among Iao basal wells so long as there is no net increase in overall water withdrawals approved so far. Well sources in the Iao Aquifer, other than the Iao Tank Site Well, have already applied for and had approved such changes, showing the proposed changes among all Iao wells in tabular form and reflecting no net increase in the total pumpage from Iao. The Iao Tank Site Well may pump up to 0.498 mgd, as a 12-month moving average, under Water Use Permit No. 823, issued on November 26, 2007.

As pumpage is spread more optimally between well sources in Iao, MDWS may make application for increased total pumpage from Iao, in the form of "new uses" – those arising after the date of designation. The total approved use from basal sources in Iao, including amounts for Kehalani Mauka and Living Waters, is 17.709 mgd, which is less than the accepted sustainable yield from Iao of 20 mgd.

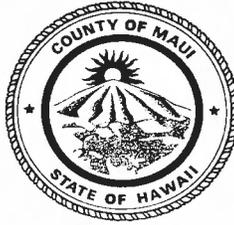
If you have any questions, please contact Charley Ice of our staff at 587-0251.

Sincerely,

KEN C. KAWAHARA, P.E.  
Deputy Director

CI:ss

CHARMAINE TAVARES  
Mayor  
CHERYL K. OKUMA, Esq.  
Director  
GREGG KRESGE  
Deputy Director



TRACY TAKAMINE, P.E.  
Solid Waste Division  
DAVID TAYLOR, P.E.  
Wastewater Reclamation  
Division

**COUNTY OF MAUI  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT**  
2200 MAIN STREET, SUITE 175  
WAILUKU, MAUI, HAWAII 96793

June 4, 2008

Mr. Andrew Amuro  
Engineer  
Fukunaga & Associates, Inc.  
1388 Kapiolani Blvd., 2<sup>nd</sup> Floor  
Honolulu, Hawaii 96814

**SUBJECT: IAO TANK SITE WELL DEVELOPMENT  
EARLY CONSULTATION DRAFT EA  
TMK (2) 3-5-001:021, WAILUKU, MAUI**

Dear Mr. Amuro,

We reviewed the subject project as a pre-application consultation and have the following comments:

1. Solid Waste Division comments
  - a. None.
2. Wastewater Reclamation Division comments:
  - a. None.

If you have any questions regarding this memorandum, please contact Gregg Kresge at 270-8230.

Sincerely,

A handwritten signature in black ink, appearing to read 'for Cheryl Okuma'. The signature is written in a cursive, flowing style. Below the signature, the name 'Cheryl Okuma, Director' is printed in a standard font.

Cheryl Okuma, Director

LINDA LINGLE  
GOVERNOR OF HAWAII



LAURA H. THIELEN  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT



**STATE OF HAWAII**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**  
**LAND DIVISION**

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

June 5, 2008

Fukunaga & Associates, Inc.  
1388 Kapiolani Boulevard, 2nd Floor  
Honolulu, HI 96814

Attention: Mr. Andrew L. Amuro, Engineer

Dear Mr. Amuro:

**SUBJECT:** Pre-Assessment Consultation for Draft Environmental Assessment –  
Iao Tank Site Well Development; Maui, Hawaii; TMK: (2) 3-5-001:021

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comments.

In addition to the comments previously sent you, enclosed are comments from the Division of Aquatic Resources on the subject matter. Should you have any questions, please feel free to call my office at 587-0433. Thank you.

Sincerely,

  
Morris M. Atta  
Administrator

Enclosure

CHARMAINE TAVARES  
Mayor

JEFFREY S. HUNT  
Director

KATHLEEN ROSS AOKI  
Deputy Director



COUNTY OF MAUI  
**DEPARTMENT OF PLANNING**

October 22, 2008

Mr. Andrew L. Amuro, Engineer  
Fukunaga & Associates, Inc.  
1388 Kapiolani Boulevard, Second Floor  
Honolulu, Hawaii 96814

Dear Mr. Amuro:

**SUBJECT: PRE-ASSESSMENT CONSULTATION FOR DRAFT ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED IAO TANK SITE WELL DEVELOPMENT PROJECT LOCATED AT TMK: (2) 3-5:001:021, WAILUKU, MAUI, HAWAII (EAC 2008/0022)**

The Department of Planning (Department) has reviewed the above-referenced letter dated April 28, 2008, and provides the following comments:

1. The parcel for the proposed project is designated General Plan Agriculture, County Zoned Agricultural District, and in the State Agricultural District;
2. No Special Management Area User Permit is required for this proposed project;
3. The project is located in the Wailuku-Kahului Community Plan District. Discuss how the proposal is consistent with the goals, objectives, and implementation strategy in the Wailuku-Kahului Community Plan;
4. Discuss in detail the Best Management Practices which will be implemented during the construction phases of the project to reduce impacts on air and water quality as well as promote soil conservation;
5. Discuss any traffic impacts that this project will have on surrounding roadway during its construction phase, and what roadway safety and traffic control measures will be taken to mitigate such impacts;
6. Discuss any proposed grading and grubbing requirements and if any new ground will be disturbed;
7. Discuss the paint color for the proposed above-ground infrastructure with regards to visual impact mitigation; and

Mr. Andrew L. Amuro, Engineer  
October 22, 2008  
Page 2

8. Discuss the anticipated timetable for the construction phase of the project. ?

Thank you for the opportunity to comment. Should you require further clarification, please contact Staff Planner James Buika at [james.buika@mauicounty.gov](mailto:james.buika@mauicounty.gov) or 270-6271.

Sincerely,



CLAYTON I. YOSHIDA, AICP  
Planning Program Administrator

For: JEFFREY S. HUNT, AICP  
Planning Director

xc: James A. Buika, Staff Planner  
Project File  
General File

JSH:CIY:JAB:bv

K:\WP\_DOCS\PLANNING\EAC\2008\0022\_laoTankSiteWell\EAC\_comments.wpd

CHARMAINE TAVARES  
Mayor

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

MICHAEL M. MIYAMOTO  
Deputy Director

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



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

CARY YAMASHITA, P.E.  
Engineering Division

BRIAN HASHIRO, P.E.  
Highways Division

COUNTY OF MAUI  
**DEPARTMENT OF PUBLIC WORKS**  
200 SOUTH HIGH STREET, ROOM NO. 434  
WAILUKU, MAUI, HAWAII 96793

October 23, 2008

Mr. Andrew Amuro, P.E.  
FUKUNAGA & ASSOCIATES, INC.  
1388 Kapiolani Boulevard, 2<sup>nd</sup> Floor  
Honolulu, Hawaii 96814

Dear Mr. Amuro:

**SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR IAO TANK  
SITE WELL DEVELOPMENT, TMK: (2) 3-5-01:021,  
WAILUKU, MAUI, HAWAII**

We reviewed the subject application and have the following comments:

1. The applicant shall be responsible for all required improvements as required by Hawaii Revised Statutes, Maui County Code and rules and regulations. ✓
2. Construction plans shall be designed in conformance with Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and Standard Details for Public Works Construction, 1984, as amended. ✓
3. Worksite traffic-control plans/devices shall conform to Manual on Uniform Traffic Control Devices for Streets and Highways, 2003. ✓

Please call Michael Miyamoto at (808) 270-7845 if you have any questions regarding this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Milton M. Arakawa".

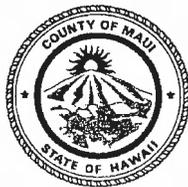
MILTON M. ARAKAWA, A.I.C.P.  
Director of Public Works

MMA:MMM:ls

xc: Highways Division  
Engineering Division

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CHARMAINE TAVARES  
Mayor



TAMARA HORCAJO  
Director

ZACHARY Z. HELM  
Deputy Director

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

## DEPARTMENT OF PARKS & RECREATION

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

November 3, 2008

Andrew Amuro, P.E.  
Fukunaga & Associates, Inc.  
1388 Kapiolani Blvd, 2<sup>nd</sup> Floor  
Honolulu, Hawaii 96814

Dear Mr. Amuro:

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT  
IAO TANK SITE WELL DEVELOPMENT  
TMK: (2) 3-5-001:021

Thank you for the opportunity to review and comment on the subject project. We have no comments to submit at this time.

Should there be any questions, please contact Mr. Patrick Matsui, Chief of Parks Planning and Development, at 808-270-7387.

Sincerely,

A handwritten signature in black ink, appearing to read "Tamara Horcajo", is written over a horizontal line.

TAMARA HORCAJO  
Director

c: Patrick Matsui, Chief of Parks Planning and Development



**DEPARTMENT OF BUSINESS,  
ECONOMIC DEVELOPMENT & TOURISM**

LINDA LINGLE  
GOVERNOR  
THEODORE E. LIU  
DIRECTOR  
MARK K. ANDERSON  
DEPUTY DIRECTOR  
ABBAY SETH MAYER  
DIRECTOR  
OFFICE OF PLANNING

**OFFICE OF PLANNING**

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

Telephone: (808) 587-2846  
Fax: (808) 587-2824

Ref. No. P-12309

November 5, 2008

Mr. Andrew Amuro, P.E.  
Fukunaga & Associates, Inc.  
1388 Kapiolani Boulevard, 2<sup>nd</sup> Floor  
Honolulu, Hawaii 96814

Dear Mr. Amuro:

Subject: Draft Environmental Assessment (DEA) for  
Iao Tank Site Well Development  
TMK: (2)3-5-01:021, Wailuku, Maui, Hawaii

Thank you for the opportunity to review and comment upon the Draft Environmental Assessment (DEA) for the Iao Tank Site Well Development. The Office of Planning has no comments at this time. In so stating, the Office offers no judgment of either the adequacy of the document/application itself or the merits of the proposed project.

If you have any questions, please contact Scott Derrickson of our Land Use Division at 587-2805.

Sincerely,

Abbey Seth Mayer  
Director



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

HRD08/1395C

November 6, 2008

Andrew Amuro  
Fukunaga & Associates, INC.  
1388 Kapi'olani Blvd., 2nd Floor  
Honolulu, Hawaii 96814

**RE: Request for comments on the proposed I'ao tank site well development draft environmental assessment (DEA), Maui, TMK: 3-5-01:21.**

Aloha e Andrew Amuro,

The Office of Hawaiian Affairs (OHA) is in receipt of the above-mentioned letter dated October 3, 2008. OHA has reviewed the project and offers the following comments.

OHA understands that the purpose for this proposed action is:

to distribute pumping over a wider area of the aquifer. Overall withdrawals from the aquifer will not be increased. Instead, pumping at other wells within the aquifer can be reduced when the Iao Tank Site well goes into service. This mitigative action is required to maintain the health of the Iao Aquifer. (DEA, page one)

OHA notes that there are many active and controversial water management issues that surround this area and aquifer. We are currently involved in a hearing before the Commission on Water Resource Management (CWRM) involving this aquifer and efforts to restore stream flow and preserve user's rights in this area. We are concerned by the applicant seeing that a "mitigative action is required" to maintain the health of this aquifer. We continue to advocate for corrective actions to be taken which will restore this system. Increased salinity in this aquifer is the result of overpumping in some areas, current stream uses and demand. OHA stresses that current circumstances should be accommodated for adequately in this sensitive area and that moving water around to bandage issues may not be the best long-term approach.

We see that there is great potential for future and increased demands to be accommodated because of this proposal. By redistributing the current harmful withdrawals in combination with future wells coming online this conglomeration of wells has the ability harm the system. For example, the

applicant has plans to expand even this proposed well in the future as noted on page two of the DEA. OHA stresses that under no circumstances should overall withdrawals from this aquifer be increased.

This area has the additional distinction of being designated a surface water management area which means that CWRM will regulate the use of surface water in the management area by means of water use permits. The State Water Code, Chapter 174C, Hawaii Revised Statutes, authorizes the CWRM to designate water management areas where CWRM finds, after research and investigations that serious disputes respecting the use of surface water resources are occurring.

OHA inquires as to what effect this proposed action may have on appurtenant rights in the area. Many of our beneficiaries have been and are water users in this area and are currently struggling to register their uses before CWRM. We understand that overall withdrawals are not intended to be increased; however, certain areas will experience flow rate changes. We ask if there has been analysis as to the effects of other wells reducing their pumping and the addition of this new pump being mixed into the system. OHA stresses that this proposal must not interfere with existing legal uses of water.

OHA further notes that this proposal is likely to interfere with measuring instream flow standards. These standards are supposed to exist to protect fishery, wildlife, recreational, aesthetic, scenic, and other beneficial instream uses which include the protection of traditional and customary Hawaiian rights. OHA notes that this project seeks to redistribute pumping over this aquifer due to current and harmful over-pumping and related increases in salinity. OHA is concerned how this redistribution of water will affect efforts to establish interim stream flow standards and we are worried that future standards will be retarded by this proposal as well.

OHA points out that under Hawaii Revised Statutes chapter 174C, CWRM has a duty to protect and restore ecological uses, traditional and customary Hawaiian practices, recreation, and scenic values. Further, instream flow standards are the minimum flows necessary to sustain these uses and are the primary tool to protect streams and the public uses dependent upon them. Therefore, OHA points out that these instream flow standards are more than requirements. For us, they become a tool to perform our constitutional mandates and perform our statutory obligations to protect our beneficiaries.

Thank you for the opportunity to comment. If you have further questions, please contact Grant Arnold by phone at (808) 594-0263 or e-mail him at [granta@oha.org](mailto:granta@oha.org).

‘O wau iho nō me ka ‘oia‘i‘o,



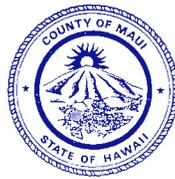
Clyde W. Nāmu‘o  
Administrator

C: Maui CRC

CHARMAINE TAVARES  
Mayor

JEFFREY S. HUNT  
Director

KATHLEEN ROSS AOKI  
Deputy Director



COUNTY OF MAUI  
**DEPARTMENT OF PLANNING**

November 17, 2008

Mr. Andrew Amuro, P.E.  
Fukunaga and Associates, Inc.  
1388 Kapiolani Boulevard, Second Floor  
Honolulu, Hawaii 96814

Dear Mr. Amuro:

**SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT PREPARED FOR THE  
IAO TANK SITE WELL DEVELOPMENT, TMK: (2) 3-5-001:021,  
WAILUKU, MAUI, HAWAII (EAC 2008/0045)**

The Department of Planning (Department) has received a Draft Environmental Assessment (DEA) prepared in support of the Iao Tank Site Well Development project at the Department of Water Supply's three-million gallon tank site near the intersection of Alu and Iao Valley Roads. We understand that the proposed development and use would be principally a 1,400-gallons per minute pump and controls, connections to the existing three-million gallon tank, a pump control building, and a driveway to the pump control building. The Department's comment follows.

1. The project appears consistent with goals, objectives and policies of the 1990 General Plan now in effect, the Wailuku-Kahului Community Plan, and also the draft Countywide Policy Plan and draft Maui Island Plan, both of the 2030 General Plan Update. It principally serves policies of these plans related to improvement of Central Maui's water supply systems.

Thank you for the opportunity to comment. Should you need additional clarification on these comments or the DEA process, contact Staff Planner Jeffrey Dack, AICP, by email at [jeffrey.dack@mauicounty.gov](mailto:jeffrey.dack@mauicounty.gov) or by phone at (808) 270-6275.

Sincerely,

A handwritten signature in blue ink, appearing to read "Clayton I. Yoshida".

CLAYTON I. YOSHIDA, AICP  
Planning Program Administrator

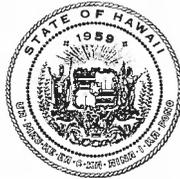
For: JEFFREY S. HUNT, ACIP  
Planning Director

Mr. Andrew Amuro  
November 17, 2008  
Page 2

xc: Jeffrey P. Dack, AICP, Staff Planner  
Department of Water Supply  
Project File  
General File

JSH:CIY:JPD:bv

K:\WP\_DOCS\PLANNING\EAC\2008\0045\_IAOTANKSITEWELL\DEA\_COMMENTS.DOC



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

In reply, please refer to:  
EPO-08-140

November 18, 2008

Mr. Andrew Amuro, P.E.  
Fukunaga & Associates, Inc.  
1388 Kapiolani Boulevard, 2<sup>nd</sup> Floor  
Honolulu, Hawaii 96814

Dear Mr. Amuro:

SUBJECT: Draft Environmental Assessment (DEA) for Iao Tank Site Well Development  
Wailuku, Maui, Hawaii  
TMK: (2) 3-5-001: 021

Thank you for allowing us to review and comment on the subject application. The document was routed to the various branches of the Department of Health (DOH) Environmental Health Administration. We have the following Clean Water Branch, Safe Drinking Water Branch and General comments.

Clean Water Branch

The Department of Health, Clean Water Branch (CWB), has reviewed the subject document and offers these comments on your project. Please note that our review is based solely on the information provided in the subject document and its compliance with Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at

<http://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf>.

1. Any project and its potential impacts to State waters must meet the following criteria:
  - a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
  - b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.
  - c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).

2. Iao Stream is identified as a Medium Priority, Category 3 water in the Clean Water Act, Section 303(d) list of impaired water bodies in Chapter IV of the *2006 State of Hawaii Water Quality Monitoring and Assessment Report*.
3. You may be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for NPDES general permit coverage by submitting the applicable Notice of Intent (NOI) form:
  - a. Storm water associated with construction activities, including excavation, grading, clearing, demolition, uprooting of vegetation, equipment staging, and storage areas that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. An NPDES permit is required before the start of the construction activities.
  - b. Discharges of hydrotesting water.
  - c. Discharges of construction activity dewatering.
  - d. Discharges of treated process wastewater associated with well drilling activities.

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

4. For types of wastewater discharges not listed in Item No. 3 above or wastewater discharging into Class 1 or Class AA waters, you may need an NPDES individual permit. Class 1 waters include, but is not limited to, all State waters in natural reserves, preserves, sanctuaries, and refuges established by the Department of Land and Natural Resources under chapter 195, Hawaii Revised Statutes (HRS), or similar reserves for the protection of aquatic life established under chapter 195, HRS. An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. The NPDES application forms may be picked up at our office or downloaded from our website at <http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html>.

Mr. Amuro  
November 18, 2008  
Page 3

5. You must also submit a copy of the NOI or NPDES permit application to the State DLNR, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the CWB that SHPD has or is in the process of evaluating your project. Please submit a copy of your request for review by SHPD or SHPD's determination letter for the project along with your NOI or NPDES permit application, as applicable.
6. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 Water Quality Certification are required, must comply with the Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.

If you have any questions, please visit our website at <http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>, or contact the Engineering Section, CWB, at 586-4309.

#### Safe Drinking Water Branch

1. The DEA indicates that the project will include the development of a new source of drinking water. Section 11-20-29 of Chapter 20, HAR requires that all new sources of drinking water serving a public water system be approved by the Director of Health prior to its use. Such an approval is based primarily upon the submission of a satisfactory engineering report which addresses the requirements set in Section 11-20-29.
2. 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, performed by a laboratory certified in the state of Hawaii, must be submitted as part of the report to demonstrate compliance with all drinking water standards. Additional tests may be required by the Director upon his review of the information submitted.
3. According to the DEA, the well will discharge into the existing 3.0 million gallon Iao Tank which serves as the clearwell for the surface water treatment plant. Since the clearwell must provide adequate chlorine contact time for the Iao Ditch and all other sources entering this tank, additional flows including future pumping rates to replace Wailuku Shaft must be carefully evaluated to insure that proper disinfection is still achieved. We request that the Maui Department of Water Supply provide us with the supporting calculations which demonstrate that with the added flow from the new well into the Iao Tank will not adversely impact its function as a surface water treatment plant clearwell.

Mr. Amuro  
November 18, 2008  
Page 4

If you have any questions concerning drinking water, please contact Michael Miyahira of the Safe Drinking Water Branch at 586-4258

General

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

If there are any questions about these comments please contact Jiakai Liu with the Environmental Planning Office at 586-4346.

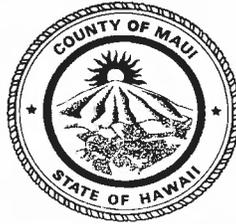
Sincerely,



KELVIN H. SUNADA, MANAGER  
Environmental Planning Office

c: EPO  
CWB  
SDWB  
EH-Maui

CHARMAINE TAVARES  
Mayor  
CHERYL K. OKUMA, Esq.  
Director  
GREGG KRESGE  
Deputy Director



TRACY TAKAMINE, P.E.  
Solid Waste Division  
DAVID TAYLOR, P.E.  
Wastewater Reclamation  
Division

**COUNTY OF MAUI  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT**  
2200 MAIN STREET, SUITE 100  
WAILUKU, MAUI, HAWAII 96793

December 8, 2008

Mr. Andrew Amuro  
Fukunaga & Associates, Inc.  
1388 Kapiolani Blvd., 2<sup>nd</sup> Floor  
Honolulu, Hawaii 96814

**SUBJECT: IAO TANK SITE WELL DEVELOPMENT  
DRAFT ENVIRONMENTAL ASSESSMENT  
TMK (2) 3-5-001:021, WAILUKU, MAUI**

Dear Mr. Amuro,

We reviewed the subject project as a pre-application consultation and have the following comments:

1. Solid Waste Division comments:
  - a. None.
2. Wastewater Reclamation Division (WWRD) comments:
  - a. None.

If you have any questions regarding this memorandum, please contact Gregg Kresge at 270-8230.

Sincerely,

A handwritten signature in black ink that reads "Cheryl K. Okuma". The signature is written in a cursive, flowing style.

Cheryl Okuma, Director

LINDA LINGLE  
GOVERNOR OF HAWAII



LAURA H. THIELEN  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI  
FIRST DEPUTY

KEN C. KAWAHARA  
DEPUTY DIRECTOR - WATER

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

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

January 5, 2009

Mr. Andrew Amuro  
Project Engineer  
Fukunaga & Associates  
1388 Kapiolani Blvd, 2<sup>nd</sup> floor  
Honolulu, Hawai'i 96814

LOG NO: 2008.4495  
DOC NO: 0812JP29  
Archaeology

Dear Mr. Amuro:

**SUBJECT: Chapter 6E- Historic Preservation Review [County/Planning/DWS] –  
Consultation Request for the Draft Environmental Assessment for the  
Proposed 'Iao Tank Site Well Development Project  
Wailuku Ahupua'a, Wailuku District, Maui Island  
TMK: (2) 3-5-001:021**

Thank you for the opportunity to comment on the proposed tank site well development project, which was received by our staff on October 6, 2008. Our review is based on reports, maps, and aerial photographs maintained at the State Historic Preservation Division (SHPD). We apologize for the delayed response. Please consider the following comments and recommendations for the project area.

Our records indicate there has been no archaeological inventory survey conducted for the subject parcel. There have been archaeological investigations upon adjacent areas. The area was once the location of ancient traditional Hawaiian agricultural, habitation, and ceremonial sites. The project area was also utilized throughout the historic plantation and ranching periods. We believe the proposed project may have an effect on any undocumented historic properties in the project area.

In order to determine the effect of the proposed action on historic properties, we recommend an archaeological assessment/inventory survey be accepted by our office for the project area corridor. If significant historic properties are identified, then proposed mitigation in consultation with this office shall be submitted for review and approval. Please direct any archaeological concerns or questions about this review to Jenny Pickett at the Maui section of the SHPD at (808) 243-4641. We may also be contacted at (808) 243-1285 or (808) 243-4640.

Aloha,

A handwritten signature in cursive script that reads "Nancy A. McMahon".

Nancy McMahon  
Historic Preservation Manager  
State Historic Preservation Division

JP

c: Dept of Planning, FAX 270-7634

Maui Cultural Resources Commission, Dept. of Planning, 250 S. High Street, Wailuku, HI 96793

CHARMAINE TAVARES  
Mayor



JEFFREY K. ENG  
Director  
ERIC H. YAMASHIGE, P.E., L.S.  
Deputy Director

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

February 4, 2009

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

ATTENTION: Mr. Grant Arnold

Dear Mr. Namu'o:

SUBJECT: Draft Environmental Assessment (DEA) for the Iao Tank Site Well  
Response to Comment Letter Dated November 6, 2008

Thank you for taking the time to review the Draft Environmental Assessment for the Iao Tank Site Well Development project. We appreciate your comments and offer the following in response.

As stated in the Draft Environmental Assessment (DEA), the Iao Aquifer was designated as a State groundwater management area on July 21, 2003. As a result, the Maui Department of Water Supply (DWS) is required to manage the aquifer in accordance with limits set by State Commission on Water Resource Management (CWRM). In accordance with the requirements for a designated groundwater management area, the DWS submitted a Water Use Permit to the CWRM for the proposed pumping of water from the Iao Tank Site Well. The CWRM reviewed the Water Use Permit application and found that the proposed redistribution of water would not degrade the overall health of the Iao Aquifer and subsequently approved the DWS Water Use Permit for Iao Tank Site Well.

You mention in your letter that "moving water around to bandage issues may not be the best long-term approach." However, the re-distribution of pumping is a long term solution to reduce localized over-pumping.

*"By Water All Things Find Life"*

The Department of Water Supply is an Equal Opportunity provider and employer. To file a complaint of discrimination, write: USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington DC 20250-9410. Or call (202) 720-5964 (voice and TDD)

Mr. Clyde Namu'o, Administrator

February 4, 2009

Page 2

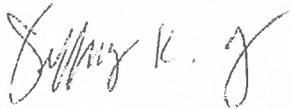
You also state that "there is great potential for future and increased demands to be accommodated because of this proposal." As we note above and in the DEA, the Iao Aquifer is a State designated groundwater management area. Any proposals to increase pumping from the Iao Tank Site Well must be approved by the CWRM via the Water Use Permit application process.

You express concern that "certain areas will experience flow rate changes" as a result of this proposed action. The Iao Tank Site Well will be part of the Central Maui Water System. Water within this system is distributed under pressure through a network of closed pipes that delivers water to customers. Redistributing the pumping from the aquifer will not result in any flow rate changes to water consumers.

OHA is also concerned that "the redistribution of water will affect efforts to establish interim stream flow standards." The proposal to pump from the Iao Tank Site Well was reviewed by the CWRM within the context of both the groundwater management area and the surface water management area designations. The proposed action is consistent with the CWRM supervision of the Iao Aquifer Designated Groundwater Management and Na Wai Eha Designated Surface Water Areas.

The DWS appreciates OHA's input on the complex water issues of our island. We would like to continue working with OHA in ensuring the water resources of Maui are protected now and for future generations. Thank you again for your insight and comments to our DEA.

Sincerely



Jeffrey K. Eng  
Director

cc: Andrew Amuro, Fukunaga & Associates, Inc.

- ( ) PLEASE TYPE      ( ) PLEASE BRING IN FOR DISCUSSION
- ( ) PLEASE FILE      ( ) PLEASE DISTRIBUTE
- ( ) PLEASE ROUTE       PLEASE MAKE 3 COPIES
- ( ) FORWARD TO      ( ) RETURN TO      ( ) SEND COPY TO

NAME: \_\_\_\_\_  
 NAME: \_\_\_\_\_  
 NAME: \_\_\_\_\_  
 NAME: \_\_\_\_\_

1. Joe  
 2. Wendy  
 3. Ellen

then file *over*



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

0309014  
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 RECEIVED  
 2009 MAR -3  
 DEPT. OF LAND AND NATURAL RESOURCES  
 COUNTY OF MAUI  
 LAURA H. THIELEN, DIRECTOR  
 MEREDITH J. CHING  
 JAMES A. FRAZIER  
 JIMAL B. FUJIWARA  
 CHYOMI FUKUO, M.D.  
 DONNA FAY K. KIYOSAKI, P.E.  
 LAWRENCE H. MIKE, M.D., J.D.  
 KEN C. KAWAHARA, P.E., DEPUTY DIRECTOR

March 2, 2009

Ref:wup.846-8,842.act

Mr. Jeffery K. Eng, Director  
 Department of Water Supply  
 County of Maui  
 200 South High Street  
 Wailuku, HI 96793

Dear Mr. Eng:

Notice of Commission Action  
 Water Use Permit Applications  
 846 for Well No. 5230-03; 847 for Well No. 5330-11;  
 848 for Well No. 5131-01; and 852 for Well No. 5232-02

This letter serves as your official notice of action taken by the Commission on Water Resource Management (Commission) on the subject application. By a unanimous vote of the Commission at their meeting on February 18, 2009, the Commission:

1. Approved partial requests for new water uses in water use permits for the captioned wells, resulting in total water use from these sources, based on a 12-month moving average, as follows:

Well No.	Well Name	WUP No.	New Use	Current Total
5230-03	Iao Tank Site Well	846	0.481 mgd	0.979 mgd
5330-11	Mokuhau 3	847	0.353 mgd	2.353 mgd
5131-01	Waikapu Tank Site	848	0.540 mgd	0.940 mgd

These water use permits are attached herein.

2. Deferred the remainder of the application requests for the sources in item (1) until a decision and order for CCH-MA06-01 is approved by the Commission.
3. Deferred action on WUP 852 for Iao Tunnel, Well No. 5232-02, until a Decision and Order for CCH-MA06-01 is approved by the Commission.

If you have any questions, please contact Charley Ice of Commission staff at 587-0218.

Sincerely,

*Ken C. Kawahara*  
 KEN C. KAWAHARA, P.E.  
 Deputy Director

Cl:ss  
 Enclosures

LINDA LINGLE  
GOVERNOR OF HAWAII



0309015  
03/02/09

RECEIVED

2009 MAR -3 PM 4:13

LAURA H. THIELEN  
CHAIRPERSON

MEREDITH J. CHING  
JAMES A. FRAZIER  
NEAL S. FUJIWARA  
CHIYOME I. FUKINO, M.D.  
DONNA FAY K. KIYOSAKI, P.E.  
LAWRENCE H. MIKE, M.D., J.D.

KEN C. KAWAHARA, P.E.  
DEPUTY DIRECTOR

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

March 2, 2009

846.wup

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Jeff Eng, Director  
Department of Water Supply  
County of Maui  
200 South High Street  
Wailuku, HI 96793

Dear Mr. Eng:

Approval of Water Use Permit (WUP No. 846) for Well No. 5230-03  
Iao Ground-Water Management Area, Maui

This letter transmits your water use permit for Iao Tank Site Well (Well No. 5230-03) for use of **0.979** million gallons per day (mgd) of water on a 12-month moving average basis that was approved by the Commission on Water Resource Management (Commission) on February 18, 2009. As part of the Commission's approval, the following special conditions were added and are part of your permit under Standard Permit Condition 19:

Special Conditions

1. The remainder of the application request is deferred until a decision and order for CCH-MA06-01 is approved by the Commission.
2. The Commission shall delegate to the Maui Department of Water Supply the authority to allocate the use of water for municipal purposes, in accordance with §174C-48(b) HRS.
3. The Maui Department of Water Supply shall be exempt from the requirements of permit modifications as provided in §174C-57.
4. In the event that the tax map key at the location of the water use is changed, the permittee shall notify the Commission in writing of the tax map key change within thirty (30) days after the permittee receives notice of the tax map key change.

Enclosed with this letter of approval are the following:

1. Your water use permit
2. Your official monthly water use report form

Mr. Jeffrey Eng  
Page 2  
March 2, 2009

Please be sure to read the conditions of your approved permit.

We draw your attention to two key conditions of your permit that require your response. First, you are required to keep a record of your monthly total pumpage, water level, salinity, and water temperature. This information must be submitted to the Commission on a regular monthly basis using the enclosed water use report form. You should make copies of the enclosed report form as needed.

Second, you are required to submit a water shortage plan to the Commission within thirty (30) days of the issuance date of this permit. Your water shortage plan simply identifies what you are willing to do should the Commission declare a water shortage situation in the Iao Ground-Water Management Area and can be as short as a one page letter. In a water shortage situation, the Commission may require temporary reductions in pumpage from all sources. The Commission is required, by law, to formulate a plan to implement such area-wide reductions, which should accommodate, include, and be consistent with your plans. Therefore, your help, by submitting your water shortage plan, is greatly needed in formulating the Commission's overall Water Shortage Plan.

If you have any questions, please call Charley Ice of the Commission staff at 587-0218.

Sincerely,

  
for LAURA H. THIELEN  
Chairperson

Attachments: WUR Form



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

## GROUND-WATER USE PERMIT

WUP NO. 846

### PERMITTEE

Permittee/Water User	Landowner of Source
Address <u>Maui Department of Water Supply</u>	Address <u>Same</u>
<u>200 South High Street</u>	<u></u>
<u>Wailuku, HI 96793</u>	<u></u>

### PERMITTED SOURCE INFORMATION

Island	<u>Maui</u>
Water Management Area	<u></u>
Aquifer Sector	<u>Wailuku</u>
Aquifer System	<u>Iao</u>
System Sustainable Yield	<u>20</u>
Well Name	<u>Iao Tank Site Well</u>
State Well No.	<u>5230-03</u>

### PERMITTED USE INFORMATION

Reasonable beneficial use	<u>Municipal</u>
Withdrawal (12 month moving ave.)	<u>0.979</u> mgd
Location of water use	<u></u>
TMK #	<u>Central Maui Service Area</u>
State land use classification	<u></u>
County zoning classification	<u></u>

Pursuant to Hawaii's State Constitution, Article XI, Section 7, Hawaii Revised Statutes, Chapter 174C; Hawaii Administrative Rules, Chapters 13-167 through 13-171; and Hawaii decisional law and custom, the permittee is hereby authorized to use ground water from the sources and in the amount and from and upon the locations described above; subject however, to the requirements of law including but not limited to the following conditions:

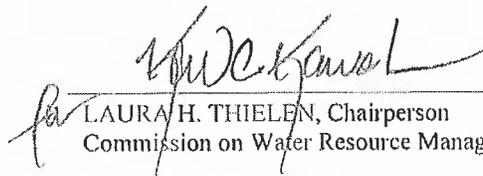
1. The water described in this water use permit may only be taken from the location described and used for the reasonable beneficial use described at the location described above. Reasonable beneficial uses means "the use of water in such a quantity as is necessary for economic and efficient utilization which is both reasonable and consistent with State and County land use plans and the public interest." (HRS § 174C-3)
2. The right to use ground water is a shared use right.
3. The water use must at all times meet the requirements set forth in HRS § 174C-49(a), which means that it:
  - a. Can be accommodated with the available water source;
  - b. Is a reasonable-beneficial use as defined in HRS § 174C-3;
  - c. Will not interfere with any existing legal use of water;
  - d. Is consistent with the public interest;
  - e. Is consistent with State and County general plans and land use designations;
  - f. Is consistent with County land use plans and policies; and
  - g. Will not interfere with the rights of the Department of Hawaiian Home Lands as provided in section 221 of the Hawaiian Homes Commission Act and HRS § 174C-101(a).
4. The ground-water use here must not interfere with surface or other ground-water rights or reservations.
5. The ground-water use here must not interfere with interim or permanent instream flow standards. If it does, then:
  - a. A separate water use permit for surface water must be obtained in the case an area is also designated as a surface water management area;
  - b. The interim or permanent instream flow standard, as applicable, must be amended.
6. The water use authorized here is subject to the requirements of the Hawaiian Homes Commission Act, as amended, if applicable.
7. The water use permit application and submittal, as amended, approved by the Commission at its February 18, 2009 meeting are incorporated into this permit by reference.
8. Any modification of the permit terms, conditions, or uses may only be made with the express written consent of the Commission.
9. This permit may be modified by the Commission and the amount of water initially granted to the permittee may be reduced if the Commission determines it is necessary to:
  - a. protect the water sources (quantity or quality);
  - b. meet other legal obligations including other correlative rights;
  - c. insure adequate conservation measures;
  - d. require efficiency of water uses;
  - e. reserve water for future uses, provided that all legal existing uses of water as of June, 1987 shall be protected;
  - f. meet legal obligations to the Department of Hawaiian Home Lands, if applicable; or
  - g. carry out such other necessary and proper exercise of the State's and the Commission's police powers under law as may be required.

Prior to any reduction, the Commission shall give notice of its proposed action to the permittee and provide the permittee an opportunity to be heard.
10. An approved flowmeter(s) must be installed to measure monthly withdrawals and a monthly record of withdrawals, salinity, temperature, and pumping times must be kept and reported to the Commission on Water Resource Management on forms provided by the Commission on a monthly basis (attached).

11. This permit shall be subject to the Commission's periodic review of the Iao Aquifer System's sustainable yield. The amount of water authorized by this permit may be reduced by the Commission if the sustainable yield of the Iao Aquifer System, or relevant modified aquifer(s), is reduced.
12. A permit may be transferred, in whole or in part, from the permittee to another, if:
  - a. The conditions of use of the permit, including, but not limited to, place, quantity, and purpose of the use, remain the same; and
  - b. The Commission is informed of the transfer within ninety days.

Failure to inform the department of the transfer invalidates the transfer and constitutes a ground for revocation of the permit. A transfer, which involves a change in any condition of the permit, including a change in use covered in HRS § 174C-57, is also invalid and constitutes a ground for revocation.

13. The use(s) authorized by law and by this permit do not constitute ownership rights.
14. The permittee shall request modification of the permit as necessary to comply with all applicable laws, rules, and ordinances that will affect the permittee's water use.
15. The permittee understands that under HRS § 174C-58(4), that partial or total nonuse, for reasons other than conservation, of the water allowed by this permit for a period of four (4) continuous years or more may result in a permanent revocation as to the amount of water not in use. The Commission and the permittee may enter into a written agreement that, for reasons satisfactory to the Commission, any period of nonuse may not apply towards the four-year period. Any period of nonuse which is caused by a declaration of water shortage pursuant to section HRS § 174C-62 shall not apply towards the four-year period of forfeiture.
16. The permittee shall prepare and submit a water shortage plan within 30 days of the issuance of this permit as required by HAR § 13-171-42(c). The permittee's water shortage plan shall identify what the permittee is willing to do should the Commission declare a water shortage in the Iao Ground-Water Management Area.
17. The water use permit shall be subject to the Commission's establishment of instream standards and policies relating to the Stream Protection and Management (SPAM) program, as well as legislative mandates to protect stream resources.
18. The permittee understands that any willful violation of any of the above conditions or any provisions of HRS § 174C or HAR § 13-171 may result in the suspension or revocation of this permit.
19. Special conditions in the attached cover transmittal letter are incorporated herein by reference.

  
LAURA H. THIELEN, Chairperson  
Commission on Water Resource Management

Attachment

LINDA LINGLE  
GOVERNOR OF HAWAII



**STATE OF HAWAII**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**

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

**LAURA H. THIELEN**  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

**RUSSELL Y. TSUJI**  
FIRST DEPUTY

**KEN C. KAWAHARA**  
DEPUTY DIRECTOR - WATER

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

March 5, 2009

Mr. Andrew Amuro, P.E.  
Fukunaga & Associates  
1388 Kapiolani Boulevard, 2<sup>nd</sup> Floor  
Honolulu, Hawai'i 96814

LOG NO: 2009.0264  
DOC NO: 0903PC07  
Archaeology

Dear Mr. Amuro:

**SUBJECT: Chapter 6E-8 Historic Preservation Review –  
REVISED Consultation Request for the Draft Environmental Assessment for the  
Proposed 'Iao Tank Site Well Development Project  
Wailuku Ahupua'a, Wailuku District, Island of Maui  
TMK: (2) 3-5-001:021**

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This letter serves as a revision to a January 5, 2009 comment letter for the abovementioned project in which we recommended that an archaeological inventory survey be undertaken prior to issuance of any permits involving ground altering disturbance within the subject parcel (SHPD LOG 2008.4495; DOC NO: 0812JP29).

As a result of correspondence from an archaeological field inspection conducted at the request of the applicant's consultant, our revision is based on the following information:

1. A pedestrian survey of the 1.326 acre subject parcel conducted by Xamanek Researches, LLC on February 9, 2009 indicates that there is no culturally significant historic surface architecture present within the proposed project area;
2. The pedestrian survey also revealed that the subject parcel has already been significantly disturbed through prior use for commercial agriculture and more recently by existing Department of Water Supply (DWS) infrastructure, including asphalt pavement and a large water tank;
3. The archaeological consultant who performed the field inspection recommended that no further historic preservation work be required for the proposed project.

Therefore, we withdraw our previous recommendation that an archaeological inventory survey be conducted, as we now believe that *no historic properties will be affected* by the proposed actions.

Mr. Andrew Amuro, P.E.  
Page 2

Should you have any questions or comments regarding this letter, please contact Patty Conte at ([Patty.J.Conte@hawaii.gov](mailto:Patty.J.Conte@hawaii.gov)).

Aloha,

A handwritten signature in cursive script that reads "Nancy A. McMahon".

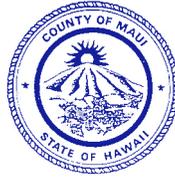
Nancy McMahon, Deputy SHPO/State Archaeologist  
State Historic Preservation Division

c: Erik Fredericksen: [xamanekresearchesllc@hawaii.rr.com](mailto:xamanekresearchesllc@hawaii.rr.com)  
Jeff Hunt, Director, Dept. of Planning, 250 S. High Street, Wailuku, Hawai'i 96793  
Maui CRC, Dept. of Planning, 250 S. High Street, Wailuku, Hawai'i 96793

CHARMAINE TAVARES  
Mayor

JEFFREY S. HUNT  
Director

KATHLEEN ROSS AOKI  
Deputy Director



COUNTY OF MAUI  
**DEPARTMENT OF PLANNING**

October 22, 2008

Mr. Andrew L. Amuro, Engineer  
Fukunaga & Associates, Inc.  
1388 Kapiolani Boulevard, Second Floor  
Honolulu, Hawaii 96814

Dear Mr. Amuro:

**SUBJECT: PRE-ASSESSMENT CONSULTATION FOR DRAFT ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED IAO TANK SITE WELL DEVELOPMENT PROJECT LOCATED AT TMK: (2) 3-5:001:021, WAILUKU, MAUI, HAWAII (EAC 2008/0022)**

The Department of Planning (Department) has reviewed the above-referenced letter dated April 28, 2008, and provides the following comments:

1. The parcel for the proposed project is designated General Plan Agriculture, County Zoned Agricultural District, and in the State Agricultural District;
2. No Special Management Area User Permit is required for this proposed project;
3. The project is located in the Wailuku-Kahului Community Plan District. Discuss how the proposal is consistent with the goals, objectives, and implementation strategy in the Wailuku-Kahului Community Plan;
4. Discuss in detail the Best Management Practices which will be implemented during the construction phases of the project to reduce impacts on air and water quality as well as promote soil conservation;
5. Discuss any traffic impacts that this project will have on surrounding roadway during its construction phase, and what roadway safety and traffic control measures will be taken to mitigate such impacts;
6. Discuss any proposed grading and grubbing requirements and if any new ground will be disturbed;
7. Discuss the paint color for the proposed above-ground infrastructure with regards to visual impact mitigation; and

Mr. Andrew L. Amuro, Engineer  
October 22, 2008  
Page 2

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

Thank you for the opportunity to comment. Should you require further clarification, please contact Staff Planner James Buika at [james.buika@mauicounty.gov](mailto:james.buika@mauicounty.gov) or 270-6271.

Sincerely,



CLAYTON I. YOSHIDA, AICP  
Planning Program Administrator

For: JEFFREY S. HUNT, AICP  
Planning Director

xc: James A. Buika, Staff Planner  
Project File  
General File

JSH:CIY:JAB:bv

K:\WP\_DOCS\PLANNING\EAC\2008\0022\_laoTankSiteWell\EAC\_comments.wpd

## **APPENDIX B**

AN ARCHAEOLOGICAL FIELD INSPECTION OF THE PROPOSED IAO TANK  
SITE WELL DEVELOPMENT PROJECT LOCATED IN WAILUKU AHUPUA'A,  
WAILUKU DISTRICT, ISLAND OF MAUI

**An Archaeological Field Inspection of the Proposed Iao Tank  
Site Well Development Project located in Wailuku *Ahupua'a*,  
Wailuku District,  
Island of Maui  
(TMK [2] 3-5-001: 021)**

**Prepared for:**

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

**Prepared by:**

**Xamanek Researches, LLC  
Pukalani, Maui**

**Erik M. Fredericksen**

*16 February 2009*

## Introduction

Erik M. Fredericksen (SHPD Permit #09-10) of Xamanek Researches LLC conducted a field inspection of a 1.326 acre portion of land in Wailuku, Maui on 9 February 2009 (TMK: [2] 3-5-001: 021). Our field inspection was carried out in reference to SHPD DOC NO: 0812JP29. In this 5 January 2009 SHPD letter, an archaeological inventory survey was recommended for the subject parcel. Ms. Jenny Pickett was contacted and consulted about this proposed action. Given the nature of the previous impacts to this parcel, an archaeological field inspection was made to document former disturbance activities. The following report presents the findings of this recent inspection.

The County of Maui Department of Water Supply (DWS) currently plans to further develop this previously impacted parcel of land (Figures 1-5). Identified as the Proposed Iao Tank Site Well Development Project, plans call for the construction of a service/control building in an area that has been heavily disturbed in the past. This archaeological field inspection was carried out at the request of Ms. Wendy Taomoto, DWS engineer, on behalf of the Department of Water Supply, which is the property owner. The project area lies within Wailuku *Ahupua`a*, Wailuku District, Maui (TMK 2] 3-5-001: 021).

### Project area

This parcel is bordered by a MECO substation on the west, privately owned land on the south and east, and by West Alu Road on the north. A section of Waihe`e Ditch is located to the southeast of the fenced DWS parcel. Private residential properties are located to the northeast. The study area lies in relatively close proximity to a large Land Commission Award: LCA 387 Grant 172. The bulk of this area in the vicinity of the project area was previously owned by Wailuku Agribusiness, Inc. and planted in sugarcane for many decades.

### Field Inspection

As previously noted above, the archaeological field inspection was conducted on 9 February 2009. Erik Fredericksen conducted the field inspection with the initial assistance of a DWS staff member who provided access to the secured water treatment facility.

It is estimated that this leveled and altered parcel rests at c. 470 to 485 ft AMSL. It was possible to fully inspect the altered parcel and surface visibility was very good.

During the course of my field inspection, there were no significant surface features noted on the previously impacted project area. Inspection of the surface indicated that this portion of land has been altered by previous land clearing activities associated with the construction of various DWS infrastructure, including a former water tank (estimated to have been constructed in the 1960s, and demolished in the early 1980s), an existing 3 million gallon water tank, a water treatment plant, a well head, an access roadway, and a relatively recently installed 16 inch water line (estimated to have been installed about 2006).

Inspection of the project area indicated that the parcel has been heavily altered over the years. A cut bank that parallels West Alu Road along the northern side of the parcel ranges from c. 1.4 to 2.2 m in depth. This area was previously excavated in order to accommodate the construction of the nearby 3 million gallon water tank and the water treatment plant in the 1980s (see Photographs). An examination of this c. 40 m long cut face did not reveal any significant material culture remains or cultural layers. Inspection of the profile indicates that the brown (7.5 YR 4/4) silty clay overlays weathered parent material (7.5 YR 4).

## **Summary**

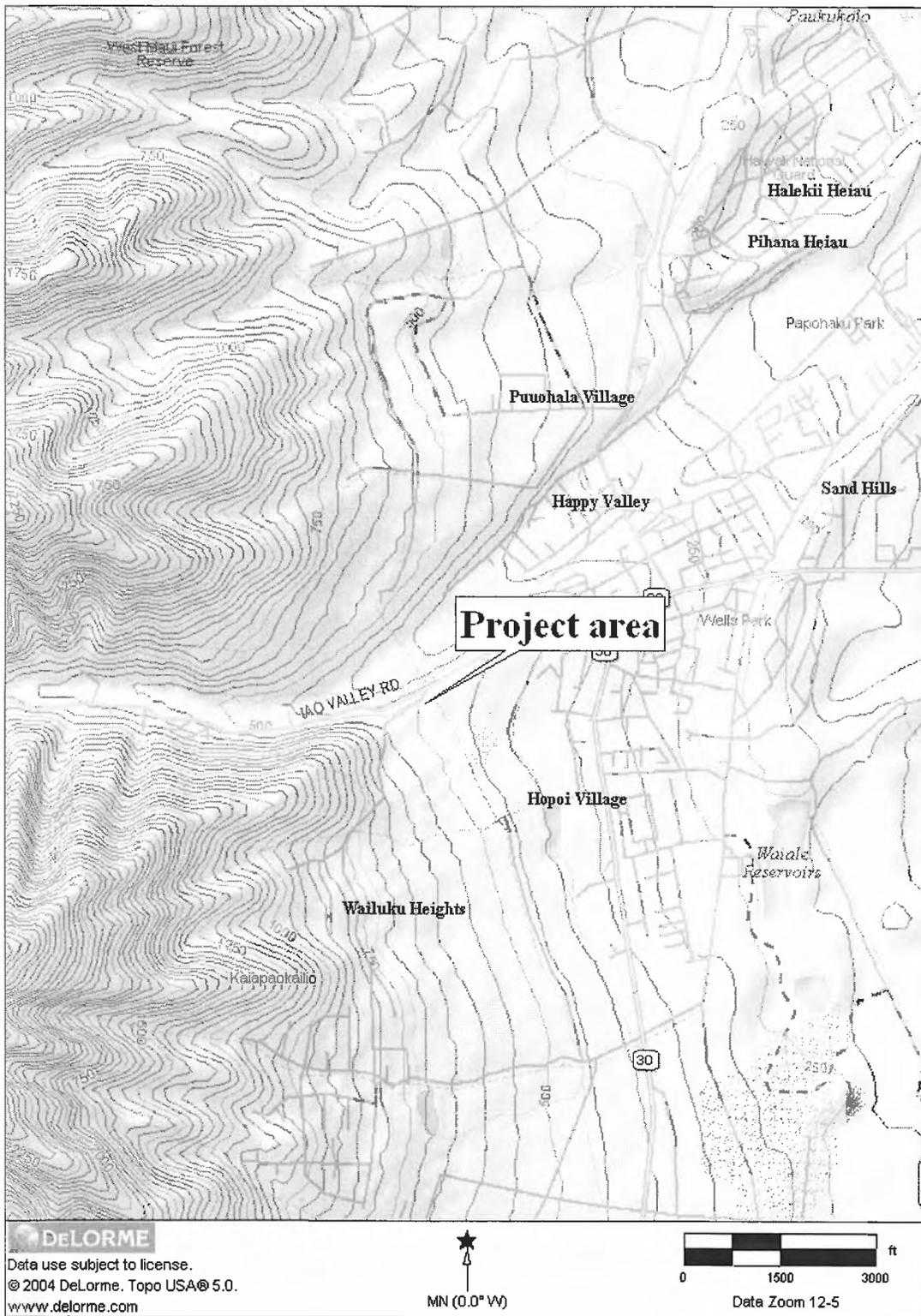
In closing, this DWS parcel has been heavily altered by earthmoving activities over the course of a few decades. The entire parcel has been impacted by various DWS infrastructure improvements over the years, including the construction of a now demolished water tank, an existing well, the water treatment facility, a recently installed 16-inch water line, an access road, and the existing 3 million gallon water tank.

## **Recommendation**

As noted above, there was no evidence of any intact features or cultural deposits noted during the surface inspection of this previously disturbed portion of land in Wailuku, Maui. Given that this parcel has been heavily impacted, it appears that an archaeological inventory survey is not warranted in this instance (Reference: SHPD DOC NO: 0812JP29). Given the extensive level of previous disturbance on this fenced parcel, no further work is recommended for TMK: [2] 3-5-001: 021.

The proposed construction of the control building will be in a previously disturbed area that was previously lowered to accommodate the existing water treatment facility and access road.

Please feel free to contact Erik M. Fredericksen (SHPD Permit #09-10) at 572-8900 or via e-mail at [xamanekresearchesllc@hawaii.rr.com](mailto:xamanekresearchesllc@hawaii.rr.com) should you have any questions or need additional information regarding this archaeological field inspection of this portion of land in Wailuku, Maui.



**Figure 1: Topographic map with approximate location of the project area, Wailuku, Maui.**

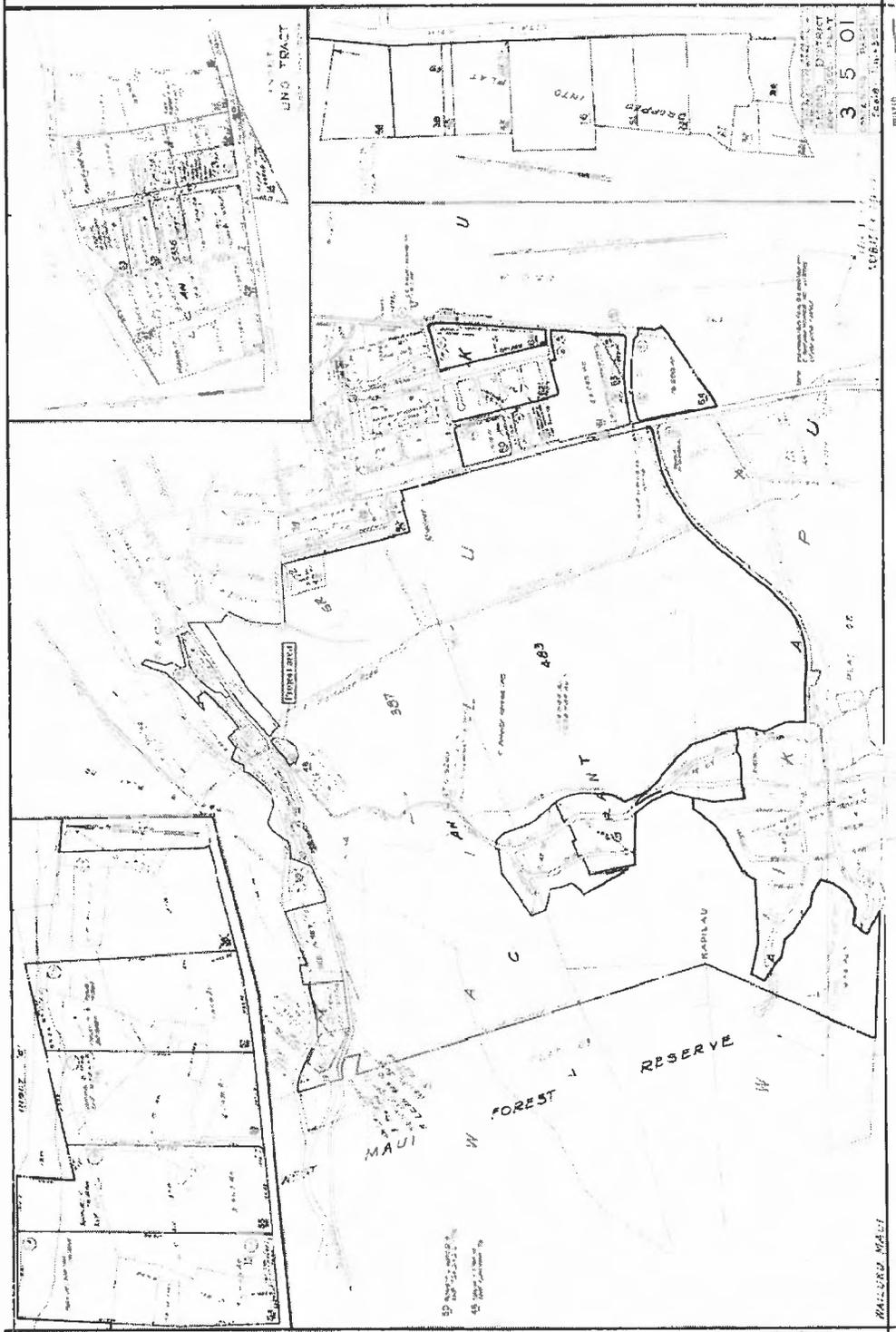


Figure 2: State Tax key Map with location of the project area in yellow, Wailuku, Maui.





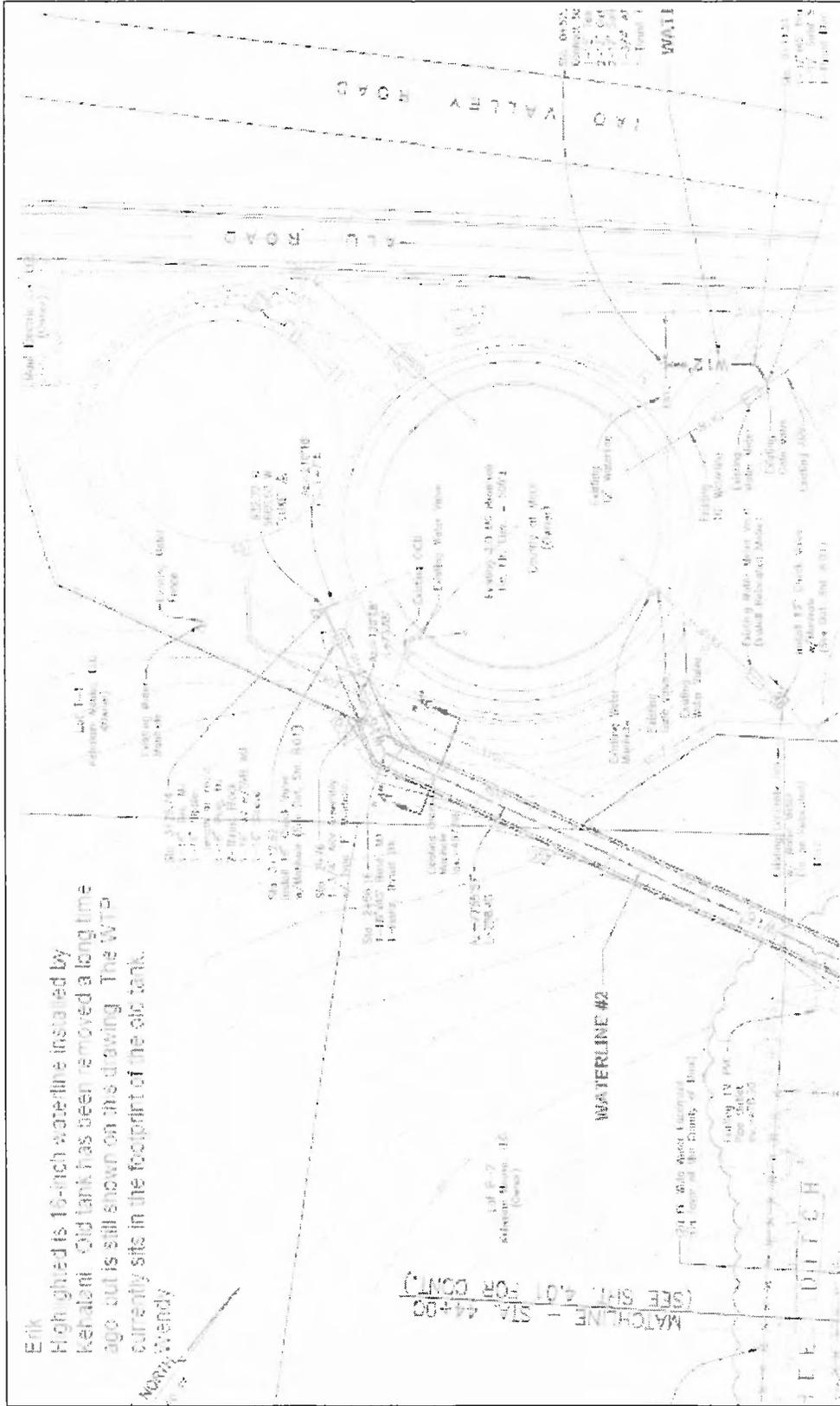


Figure 5: Topographic map with location of recently installed 16-inch water line, Wailuku, Maui. Note old tank is depicted at top, but was demolished in the 1980s.

## Project Photographs



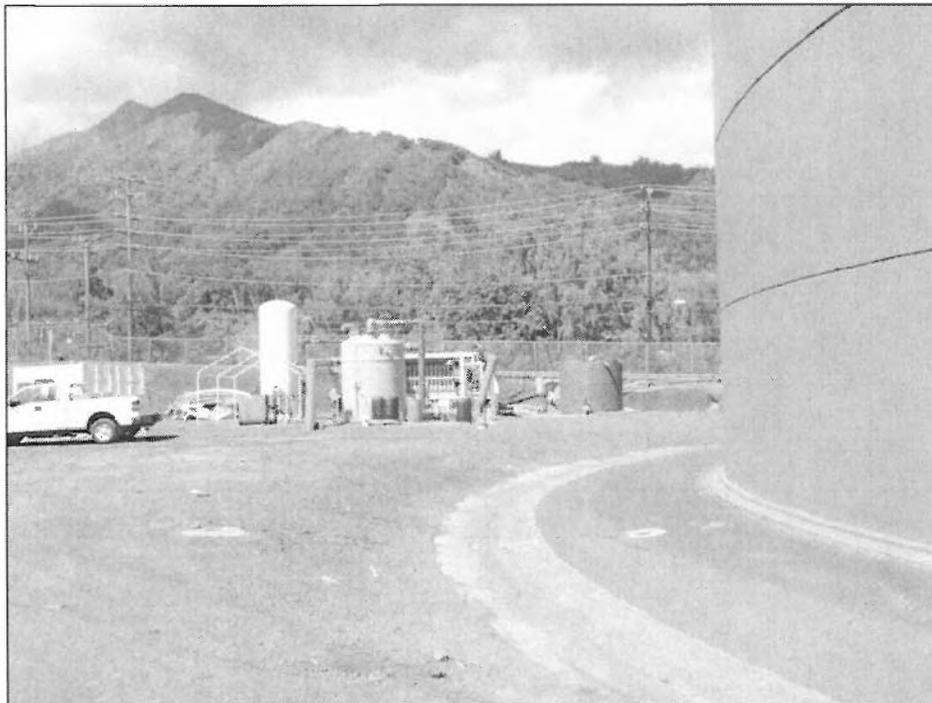
**Photograph 1: View to the northwest across northern parcel, Wailuku, Maui. West Alu Road is visible at the right.**



**Photograph 2: View to the southeast from existing water tank pad.**



**Photograph 3: View to the southwest across the water tank pad.  
Note fence and road at center of photograph.**



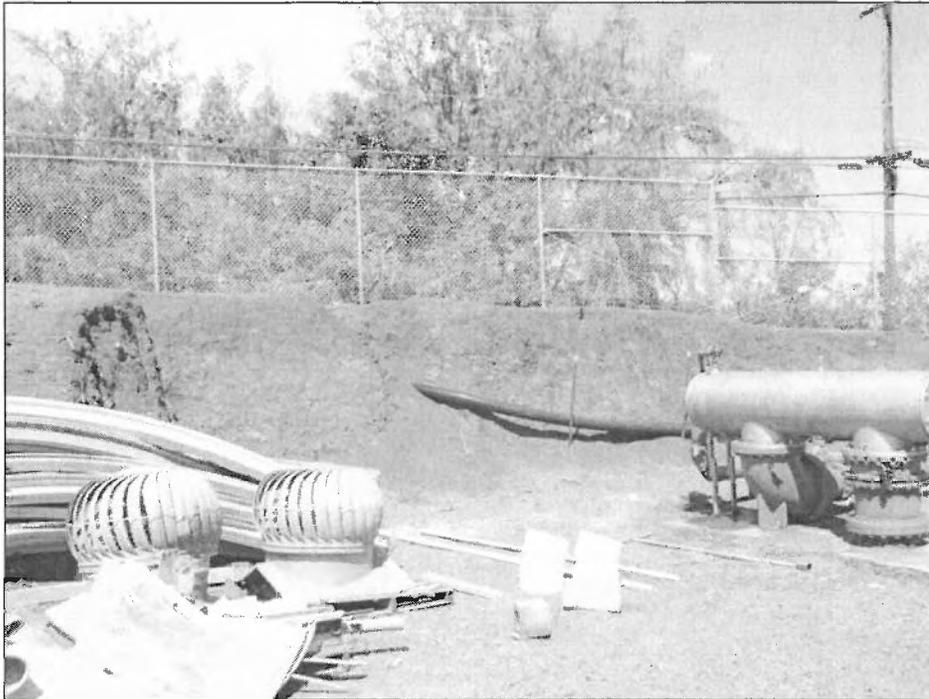
**Photograph 4: View to the northwest of the water treatment plant; water tank at right.**



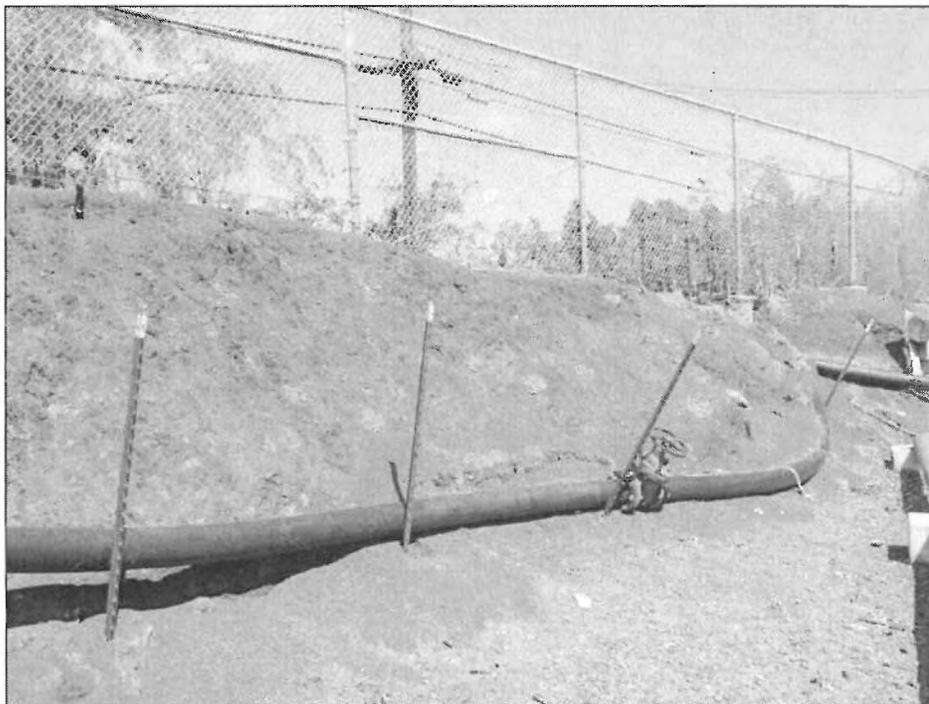
**Photograph 5: View to the northwest of the water treatment plant; cut bank at rear.  
Note: MECO substation at upper left.**



**Photograph 6: View to the northeast across the water treatment plant.  
Note: water tank at right, cut bank at left below West Alu Road.**



**Photograph 7: View to the north of a portion of the cut bank that parallels West Alu Road; portion of water treatment plant is at right.**



**Photograph 8: View to the northeast of a portion of the cut bank that parallels West Alu Road.**



**Photograph 9: View to the northwest of a portion of the cut bank.**



**Photograph 10: View to the WNW of the water tank from the eastern boundary of the DWS parcel; fill bank is in foreground.**

ATTACHMENT: SHPD DOC NO: 0812JP29



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION  
601 KAMOHUKA BOULEVARD, ROOM 505  
KAPOLEI, HAWAII 96707

LARRY N. THORPE  
DIRECTOR  
STATE HISTORIC PRESERVATION DIVISION  
601 KAMOHUKA BOULEVARD, ROOM 505  
KAPOLEI, HAWAII 96707  
PHONE: (808) 464-4641  
FAX: (808) 464-4642  
WWW.HAWAII.GOV/SHPD

January 5, 2009

Mr. Andrew Amuro  
Project Engineer  
Fukunaga & Associates  
1388 Kapiolani Blvd, 2<sup>nd</sup> floor  
Honolulu, Hawaii 96814

LOG NO: 2008-4495  
DOC NO: 0812JP29  
Archaeology

Dear Mr. Amuro:

**SUBJECT: Chapter 6E- Historic Preservation Review [County/Planning/DWS] –  
Consultation Request for the Draft Environmental Assessment for the  
Proposed 'Iao Tank Site Well Development Project  
Wailuku Ahupua'a, Wailuku District, Maui Island  
TMK: (2) 3-5-001:021**

Thank you for the opportunity to comment on the proposed tank site well development project, which was received by our staff on October 6, 2008. Our review is based on reports, maps, and aerial photographs maintained at the State Historic Preservation Division (SHPD). We apologize for the delayed response. Please consider the following comments and recommendations for the project area.

Our records indicate there has been no archaeological inventory survey conducted for the subject parcel. There have been archaeological investigations upon adjacent areas. The area was once the location of ancient traditional Hawaiian agricultural, habitation, and ceremonial sites. The project area was also utilized throughout the historic plantation and ranching periods. We believe the proposed project may have an effect on any undocumented historic properties in the project area.

In order to determine the effect of the proposed action on historic properties, we recommend an archaeological assessment/inventory survey be accepted by our office for the project area corridor. If significant historic properties are identified, then proposed mitigation in consultation with this office shall be submitted for review and approval. Please direct any archaeological concerns or questions about this review to Jenny Pickett at the Maui section of the SHPD at (808) 243-4641. We may also be contacted at (808) 243-1285 or (808) 243-4640.

Aloha,

Nancy McMahon  
Historic Preservation Manager  
State Historic Preservation Division

JP

c: Dept of Planning, FAX 270-7634  
Maui Cultural Resources Commission, Dept. of Planning, 250 S. High Street, Wailuku, HI 96793

**APPENDIX C**

APPROVAL OF WATER USE PERMIT (WUP NO.846) FOR WELL NO.5230-03  
IAO GROUND-WATER MANAGEMENT AREA, MAUI

LINDA LINGLE  
GOVERNOR OF HAWAII



0309015  
03/04/09

RECEIVED

2009 MAR -3 PM 4:13

LAURA H. THIELEN  
CHIEF PERSONNEL OFFICER  
MEREDITH J. CHING  
JAMES A. FRAZIER  
NEAL S. FUJIWARA  
CHIYOME L. FUKINO, M.D.  
DONNA FAY K. KIYOSAKI, P.E.  
LAWRENCE H. MUIKE, M.D., J.D.

KEN C. KAWAHARA, P.E.  
DEPUTY DIRECTOR

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

March 2, 2009

846.wup

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Jeff Eng, Director  
Department of Water Supply  
County of Maui  
200 South High Street  
Wailuku, HI 96793

Dear Mr. Eng:

Approval of Water Use Permit (WUP No. 846) for Well No. 5230-03  
Iao Ground-Water Management Area, Maui

This letter transmits your water use permit for Iao Tank Site Well (Well No. 5230-03) for use of **0.979** million gallons per day (mgd) of water on a 12-month moving average basis that was approved by the Commission on Water Resource Management (Commission) on February 18, 2009. As part of the Commission's approval, the following special conditions were added and are part of your permit under Standard Permit Condition 19:

**Special Conditions**

1. The remainder of the application request is deferred until a decision and order for CCH-MA06-01 is approved by the Commission.
2. The Commission shall delegate to the Maui Department of Water Supply the authority to allocate the use of water for municipal purposes, in accordance with §174C-48(b) HRS.
3. The Maui Department of Water Supply shall be exempt from the requirements of permit modifications as provided in §174C-57.
4. In the event that the tax map key at the location of the water use is changed, the permittee shall notify the Commission in writing of the tax map key change within thirty (30) days after the permittee receives notice of the tax map key change.

Enclosed with this letter of approval are the following:

1. Your water use permit
2. Your official monthly water use report form

Mr. Jeffrey Eng  
Page 2  
March 2, 2009

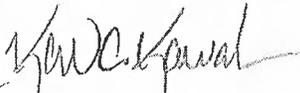
Please be sure to read the conditions of your approved permit.

We draw your attention to two key conditions of your permit that require your response. First, you are required to keep a record of your monthly total pumpage, water level, salinity, and water temperature. This information must be submitted to the Commission on a regular monthly basis using the enclosed water use report form. You should make copies of the enclosed report form as needed.

Second, you are required to submit a water shortage plan to the Commission within thirty (30) days of the issuance date of this permit. Your water shortage plan simply identifies what you are willing to do should the Commission declare a water shortage situation in the Iao Ground-Water Management Area and can be as short as a one page letter. In a water shortage situation, the Commission may require temporary reductions in pumpage from all sources. The Commission is required, by law, to formulate a plan to implement such area-wide reductions, which should accommodate, include, and be consistent with your plans. Therefore, your help, by submitting your water shortage plan, is greatly needed in formulating the Commission's overall Water Shortage Plan.

If you have any questions, please call Charley Ice of the Commission staff at 587-0218.

Sincerely,

  
LAURA H. THIELEN  
Chairperson

Attachments: WUR Form



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
P. O. BOX 521  
HONOLULU, HAWAII 96809

## GROUND-WATER USE PERMIT

WUP NO. 846

### PERMITTEE

Permittee/Water User		Landowner of Source	
Address	<u>Maui Department of Water Supply</u>	Address	<u>Same</u>
	<u>200 South High Street</u>		<u></u>
	<u>Wailuku, HI 96793</u>		<u></u>

### PERMITTED SOURCE INFORMATION

Island	<u>Maui</u>
Water Management Area	
Aquifer Sector	<u>Wailuku</u>
Aquifer System	<u>Iao</u>
System Sustainable Yield	<u>20</u>
Well Name	<u>Iao Tank Site Well</u>
State Well No.	<u>5230-03</u>

### PERMITTED USE INFORMATION

Reasonable beneficial use	<u>Municipal</u>
Withdrawal (12 month moving ave.)	<u>0.979</u> mgd
Location of water use	
TMK #	<u>Central Maui Service Area</u>
State land use classification	<u></u>
County zoning classification	<u></u>

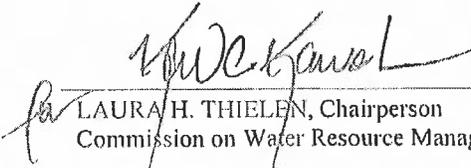
Pursuant to Hawaii's State Constitution, Article XI, Section 7, Hawaii Revised Statutes, Chapter 174C; Hawaii Administrative Rules, Chapters 13-167 through 13-171; and Hawaii decisional law and custom, the permittee is hereby authorized to use ground water from the sources and in the amount and from and upon the locations described above; subject however, to the requirements of law including but not limited to the following conditions:

1. The water described in this water use permit may only be taken from the location described and used for the reasonable beneficial use described at the location described above. Reasonable beneficial uses means "the use of water in such a quantity as is necessary for economic and efficient utilization which is both reasonable and consistent with State and County land use plans and the public interest." (HRS § 174C-3)
2. The right to use ground water is a shared use right.
3. The water use must at all times meet the requirements set forth in HRS § 174C-49(a), which means that it:
  - a. Can be accommodated with the available water source;
  - b. Is a reasonable-beneficial use as defined in HRS § 174C-3;
  - c. Will not interfere with any existing legal use of water;
  - d. Is consistent with the public interest;
  - e. Is consistent with State and County general plans and land use designations;
  - f. Is consistent with County land use plans and policies; and
  - g. Will not interfere with the rights of the Department of Hawaiian Home Lands as provided in section 221 of the Hawaiian Homes Commission Act and HRS § 174C-101(a).
4. The ground-water use here must not interfere with surface or other ground-water rights or reservations.
5. The ground-water use here must not interfere with interim or permanent instream flow standards. If it does, then:
  - a. A separate water use permit for surface water must be obtained in the case an area is also designated as a surface water management area;
  - b. The interim or permanent instream flow standard, as applicable, must be amended.
6. The water use authorized here is subject to the requirements of the Hawaiian Homes Commission Act, as amended, if applicable.
7. The water use permit application and submittal, as amended, approved by the Commission at its February 18, 2009 meeting are incorporated into this permit by reference.
8. Any modification of the permit terms, conditions, or uses may only be made with the express written consent of the Commission.
9. This permit may be modified by the Commission and the amount of water initially granted to the permittee may be reduced if the Commission determines it is necessary to:
  - a. protect the water sources (quantity or quality);
  - b. meet other legal obligations including other correlative rights;
  - c. insure adequate conservation measures;
  - d. require efficiency of water uses;
  - e. reserve water for future uses, provided that all legal existing uses of water as of June, 1987 shall be protected;
  - f. meet legal obligations to the Department of Hawaiian Home Lands, if applicable; or
  - g. carry out such other necessary and proper exercise of the State's and the Commission's police powers under law as may be required.

Prior to any reduction, the Commission shall give notice of its proposed action to the permittee and provide the permittee an opportunity to be heard.
10. An approved flowmeter(s) must be installed to measure monthly withdrawals and a monthly record of withdrawals, salinity, temperature, and pumping times must be kept and reported to the Commission on Water Resource Management on forms provided by the Commission on a monthly basis (attached).

11. This permit shall be subject to the Commission's periodic review of the Iao Aquifer System's sustainable yield. The amount of water authorized by this permit may be reduced by the Commission if the sustainable yield of the Iao Aquifer System, or relevant modified aquifer(s), is reduced.
12. A permit may be transferred, in whole or in part, from the permittee to another, if:
  - a. The conditions of use of the permit, including, but not limited to, place, quantity, and purpose of the use, remain the same; and
  - b. The Commission is informed of the transfer within ninety days.

Failure to inform the department of the transfer invalidates the transfer and constitutes a ground for revocation of the permit. A transfer, which involves a change in any condition of the permit, including a change in use covered in HRS § 174C-57, is also invalid and constitutes a ground for revocation.
13. The use(s) authorized by law and by this permit do not constitute ownership rights.
14. The permittee shall request modification of the permit as necessary to comply with all applicable laws, rules, and ordinances that will affect the permittee's water use.
15. The permittee understands that under HRS § 174C-58(4), that partial or total nonuse, for reasons other than conservation, of the water allowed by this permit for a period of four (4) continuous years or more may result in a permanent revocation as to the amount of water not in use. The Commission and the permittee may enter into a written agreement that, for reasons satisfactory to the Commission, any period of nonuse may not apply towards the four-year period. Any period of nonuse which is caused by a declaration of water shortage pursuant to section HRS § 174C-62 shall not apply towards the four-year period of forfeiture.
16. The permittee shall prepare and submit a water shortage plan within 30 days of the issuance of this permit as required by HAR § 13-171-42(c). The permittee's water shortage plan shall identify what the permittee is willing to do should the Commission declare a water shortage in the Iao Ground-Water Management Area.
17. The water use permit shall be subject to the Commission's establishment of instream standards and policies relating to the Stream Protection and Management (SPAM) program, as well as legislative mandates to protect stream resources.
18. The permittee understands that any willful violation of any of the above conditions or any provisions of HRS § 174C or HAR § 13-171 may result in the suspension or revocation of this permit.
19. Special conditions in the attached cover transmittal letter are incorporated herein by reference.

  
LAURA H. THIELEN, Chairperson  
Commission on Water Resource Management

Attachment