



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

APPLICATION FOR SURFACE WATER USE PERMIT  
 FOR EXISTING USE IN THE NA WAI EHA, MAUI, SURFACE  
 WATER MANAGEMENT AREAS

**FORM SWUPA-E (NA WAI EHA, MAUI)**

For Official Use Only:

RECEIVED  
 COMMISSION ON WATER  
 RESOURCE MANAGEMENT

2009 APR 23 PM 4:10

Event ID: SWUP. 2230.6

SWUP No. 32

For detailed instructions on filling out this application, refer to the attached instructions.

**APPLICANT INFORMATION:** Note: In accordance with §174C-51(1)(B), HRS, in the event a lessee, licensee, developer, or any other person with a terminable interest or estate in the land, which is the water source of the permitted water, applies for a water permit, the landowner shall also be stated as a joint applicant for the water permit.

1. APPLICANT'S NAME Patricia Z. Federcell		Applicant's Contact		2. SOURCE LANDOWNER'S NAME Avery Chumbley		Source Landowner's Contact	
Applicant's Mailing Address, or Principal Place of Business 135 Waiko Rd. Waikapu, HI 96793				Source Landowner's Mailing Address, or Principal Place of Business 363 W. Waiko Rd. Wailuku, HI 96793			
Applicant's Phone	Applicant's Fax	Applicant's E-mail	Source Landowner's Phone	Source Landowner's Fax	Source Landowner's E-mail		

**EXISTING SOURCE INFORMATION**

The following must be attached before this application is accepted as complete:  
 • Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) labeled with stream and diversion locations and quad map name.  
 • Property Tax Map Key (TMK), showing stream or diversion location, and location of water use referenced to established property boundaries.  
 • Photograph(s) of the surface water diversion works and end use.

3. SURFACE WATER HYDROLOGIC UNIT AND CODE:  Waihee/6022  Waiehu/6023  Iao/6024  Waikapu/6001

4a. TMK OF STREAM DIVERSION LOCATION: 

3	-	5	-	004	:	018
Zone		Sector		Plat		Parcel

4b. TMK OF DITCH DIVERSION LOCATION: 

3	-	5	-	012	:	001
Zone		Sector		Plat		Parcel

5. STREAM DIVERSION: How is water diverted from the stream to your property? Check all that apply.  
 Pipe  Pump  Ditch/Vauwai  Other Describe: two 5/8th inch hoses from 'auwai; see attachment for more info.  
 Is the diverted water returned to the stream or ditch?  Yes.  No. if yes, how much water is returned?

6. FLOW MEASUREMENT INFORMATION:  
 Does the stream diversion have a flowmeter with totalizer or other device to measure diverted amounts?  
 Yes. Enter the installation date:  
 Describe the device and enter measured amounts in Table 1.  
 No. Explain how you are measuring flow to justify amounts shown in Table 1 in the space below  
 I used a modified bucket method to measure the rate flows from my two hoses. See attachment for more info.

**EXISTING USER INFORMATION**

7. APPURTENANT RIGHT: Do you claim an appurtenant right for your water use?  Yes  No  
 if yes, has the appurtenant right been established by the courts or the Commission?  Yes  No

8. END USER INFORMATION: Are you an end user on an existing water system?  Yes  No  
 if yes, who is the operator of the water system? N/A; no operator

9. REGISTRATION AND DECLARATION OF WATER USE: Do you have a Registration and Declaration of Water Use with the Commission?  
 Yes. List the file reference name(s): Federcell PZ  
 No

10. STREAM DIVERSION WORKS PERMIT (SDWP):  
 Have you ever been issued a SDWP by the Commission?  
 Yes. List the permit number(s):  
 No

NOTE: Signing below indicates that the signatories understand and affirm that the information provided on this application is accurate and true to the best of their knowledge. Furthermore, the signatories understand that: 1) if necessary, further information may be required before the application is considered complete; 2) if a water use permit is granted by the Commission, this permit will be subject, but not limited, to any existing legal uses, changes in sustainable yields and instream flow standards, Hawaiian Home Lands uses, and any other conditions imposed by the Commission; and 3) the applicant is responsible for paying the required public notice fees associated with this application.

11. APPLICANT  <i>Patricia Z. Federcell</i> Signature Patricia Z. Federcell Print Apr. 4, 2009 Date	12. SOURCE LANDOWNER  Signature Print Date
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FILE ID: SWUP. 2230.6  
 DOC ID: 3234

**SURFACE WATER USE PERMIT APPLICATION  
EXISTING USE (NA WAI EHA, MAUI)**

**TABLE 1: 12-MONTH AVERAGE DAILY USE  
Measured or Calculated Use of Water at the Source or End Use  
As of the Effective Date of Designation, April 30, 2008**

MONTH / YEAR	AVERAGE DAILY USE FOR THE MONTH IN GALLONS PER DAY (GPD)	Check one item per box				OTHER Please describe
		METERED	ESTIMATED	ACTIVE BUT UNKNOWN	INACTIVE	
May 2007	4113	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
June 2007	4113	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
July 2007	4113	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
August 2007	4113	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
September 2007	4113	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
October 2007	4113	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
November 2007	4113	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
December 2007	4113	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
January 2008	4113	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
February 2008	4113	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
March 2008	4113	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
April 2008	4113	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>SUM OF AVERAGE DAILY USE FOR THE MONTH</b>	49356					<b>GPD</b>
<b>AVERAGE DAILY USE (Average of the above)</b>	4113: see attachment					<b>GPD</b>

**SURFACE WATER USE PERMIT APPLICATION  
EXISTING USE (NA WAI EHA, MAUI)**

**TABLE 2: LAND USE CONSISTENCY/EFFICIENCY**  
(Attach additional copies of Table 2 if necessary)

LAND USE CONSISTENCY					EFFICIENCY OF USE				
1. PURPOSE / WATER USE CATEGORY	2. USE TIME ATTACH THE FOLLOWING: • Property tax map, showing use location in reference to established property boundaries • Photograph of the area of use	3. STATE LAND USE DISTRICT	4. CDUP REQ'D Enter either: Yes and Date approved, or Yes and not acquired, or No	5. COUNTY ZONING CODE	6. SMAP REQ'D Enter either: Yes and Date approved, or Yes and not acquired, or No	7. REQUESTED QUANTITY OF USE Gallons per Day (GPD)	8. SUB-METERED? (Yes or No)	9. UNITS OR NET ACREAGE	10. APPLICANT'S JUSTIFICATION FOR REQUESTED QUANTITY OF USE FOR ITEM 7. If applicable, attach sheets to show how this number was calculated. For irrigation uses, fill in Table 3.
<b>Uses that require potable (drinking) water</b>									
	Zone - Sector - Plat - Parcel								
	Zone - Sector - Plat - Parcel								
	Zone - Sector - Plat - Parcel								
	Zone - Sector - Plat - Parcel								
<b>TOTAL POTABLE USE</b>									
<b>TOTAL POTABLE USE</b>							<b>GPD</b>		
<b>Uses that do not require potable water</b>									
DOM	3 - 5 - 012 - 005 Zone - Sector - Plat - Parcel	URB	NO	AG	NO	4113	NO	0.26 acres	See addendum.
	Zone - Sector - Plat - Parcel								
	Zone - Sector - Plat - Parcel								
	Zone - Sector - Plat - Parcel								
<b>TOTAL NON-POTABLE USE</b>						4113			
<b>TOTAL NON-POTABLE USE</b>						4113	<b>GPD</b>		
<b>TOTAL USE REQUESTED (Sum of Total Potable Use and Total Non-Potable Use above) =</b>						4113	<b>GPD</b>		
If total use requested is not equal to the total monthly average in Table 1, please explain. N/A									
In accordance with §174C-51(5), please explain if there are any limitations (legal, contractual, etc.) on the use(s) of water described above. N/A									

**SURFACE WATER USE PERMIT APPLICATION  
EXISTING USE (NA WAI EHA, MAUI)**

**TABLE 3: IRRIGATION INFORMATION**

List all crops as separate line items and include landscape and golf course irrigation, grown in the 12 months prior to April 30, 2008. Attach additional copies of Table 3 if necessary.

1. USE TAX MAP KEY (TMK) Attach map outlining area and photo.	2. CROP	3. TOTAL ACREAGE	4. NET IRRIGATED ACREAGE	5. BEGIN ROWTH PERIOD (Month)	6. END GROWTH PERIOD (Month)	7. IRRIGATION SYSTEM (Refer to instructions.)	8. IRRIGATION PRACTICE (Refer to instructions.)
3 - 5 - 012 : 001 <small>Zone Sector Plat Parcel</small>	Diversified Ag	1.98	0.25	year round	year round	other: hoses and sprinklers	field capacity
- - - : <small>Zone Sector Plat Parcel</small>							
- - - : <small>Zone Sector Plat Parcel</small>							
- - - : <small>Zone Sector Plat Parcel</small>							
- - - : <small>Zone Sector Plat Parcel</small>							
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- - - : <small>Zone Sector Plat Parcel</small>							
- - - : <small>Zone Sector Plat Parcel</small>							

**SURFACE WATER USE PERMIT APPLICATION  
EXISTING USE (NA WAI EHA, MAUI)**

**TABLE 4: ALTERNATIVES ANALYSIS**

	<b>Potable Alternatives</b> Attach additional sheets if necessary.	<b>Non-Potable Alternatives</b> Attach additional sheets if necessary.
Municipal sources	N/A	see attachment
Wastewater reuse	N/A	see attachment
Ditch system	N/A	see attachment
Desalinization	N/A	see attachment
Ground water	N/A	see attachment
Other (specify)	N/A	N/A

**PUBLIC INTEREST**

§174C-2(c) states that: *The state water code shall be liberally interpreted to obtain maximum beneficial use of the waters of the State for purposes such as domestic uses, aquaculture uses, irrigation and other agricultural uses, power development, and commercial and industrial uses. However, adequate provision shall be made for the protection of traditional and customary Hawaiian rights, the protection and procreation of fish and wildlife, the maintenance of proper ecological balance and scenic beauty, and the preservation and enhancement of waters of the State for municipal uses, public recreation, public water supply, agriculture, and navigation. Such objectives are declared to be in the public interest.*

Explain below how the uses in your application are consistent with the public interest as described above. Attach additional sheets if necessary.  
see attachment

# SURFACE WATER USE PERMIT APPLICATION EXISTING USE (NA WAI EHA, MAUI)

## INSTRUCTIONS FOR FILLING OUT FORM SWUPA-E

This application form is to be used for actual existing uses as of the effective date of designation, April 30, 2008, for the Na Wai Eha Surface Water Management Areas. Based on the State Water Code, Section 174C, Part IV Regulation of Water Use, a completed application must be filed with the Commission on Water Resource Management (CWRM) no later than April 30, 2009, to qualify as an existing use. Failure to meet the filing deadline may cause your application to be considered a new use and require you to file an Application for Surface Water Use Permit for New Use.

If you are applying for a new surface water use, which are proposed uses after the date of designation, please use the Application for Surface Water Use Permit for New Use, Form SWUPA-N.

Information about surface water management areas and the current application forms are available at our website: <http://www.hawaii.gov/dlnr/cwrm/>; by contacting the Stream Protection and Management Branch at 587-0234; or sending an email to: [dlnr.cwrm@hawaii.gov](mailto:dlnr.cwrm@hawaii.gov).

**REQUIREMENTS FOR A COMPLETE APPLICATION** Information must be legible. Therefore, please type or clearly print all information in ink.

- a. Fill in the most recent application form.
- b. Fill in every line on the application.
- c. Enclose a check for the non-refundable filing fee of \$25 payable to: Department of Land and Natural Resources.
- d. Pay for the cost of publishing any required public notices related to your application.
- e. Mark the source and end use locations on the appropriate USGS quad map and TMK map and attach to your application.
- f. Attach photos showing your existing diversion, measuring device (if applicable) and end use areas.
- g. Sign the application form. Both the applicant and the landowner of the source must sign the application form.
- h. Submit one original and 15 copies of the application form; one original and 15 copies of the attachments (instructions, maps, photos and any additional attachments) and filing fee to: Commission on Water Resource Management, P.O. Box 621, Honolulu, HI 96809.

The applicant must establish that the existing use of water is a reasonable and beneficial use. According to §174C-3 of the State Water Code: *"Reasonable-beneficial use" means the use of water in such a quantity as is necessary for economic and efficient utilization, for a purpose, and in a manner which is both reasonable and consistent with the state and county land use plans and the public interest.*

Furthermore, public interest is described in §174C-2(c) of the State Water Code which states that: *(t)he state water code shall be liberally interpreted to obtain maximum beneficial use of the waters of the State for purposes such as domestic uses, aquaculture uses, irrigation and other agricultural uses, power development, and commercial and industrial uses. However, adequate provision shall be made for the protection of traditional and customary Hawaiian rights, the protection and procreation of fish and wildlife, the maintenance of proper ecological balance and scenic beauty, and the preservation and enhancement of waters of the State for municipal uses, public recreation, public water supply, agriculture, and navigation. Such objectives are declared to be in the public interest.*

## LINE BY LINE INSTRUCTIONS FOR COMPLETING THE APPLICATION FORM

### APPLICANT INFORMATION

1. **APPLICANT'S NAME:** Fill in the information for the applicant. This should be the entity that will be responsible for all conditions of the water use permit.
2. **SOURCE LANDOWNER'S NAME:** Fill in the information for the landowner of the property where the existing surface water diversion works is located. Note: in accordance with §174C-51(1)(B), *In the event a lessee, licensee, developer, or any other person with a terminable interest or estate in the land, which is the water source of the permitted water, applies for a water permit, the landowner shall also be stated as a joint applicant for the water permit.*

### EXISTING SOURCE INFORMATION

3. **SURFACE WATER HYDROLOGIC UNIT AND CODE:** Check the appropriate box for the hydrologic unit name and hydrologic code where the source is located. The "source" is the stream, ditch, or conduit from which water is diverted to the user. For information on hydrologic unit names and unit codes please refer to the *Surface-Water Hydrologic Unit: A Management Tool for Instream Flow Standards* report available on the CWRM website at: <http://www.hawaii.gov/dlnr/cwrm/>, or contact CWRM staff at (808) 587-0234. You may also contact CWRM toll-free from Maui at: 984-2400, ext. 70234.
- 4a. **TMK OF STREAM DIVERSION LOCATION:** Fill in the current Tax Map Key (TMK) number of the parcel where the stream diversion is located if applicable. To find out your TMK number, call Maui County Real Property Tax Division at: (808) 270-7297, or check online at: [www.mauipropertytax.com/](http://www.mauipropertytax.com/)
- 4b. **TMK OF DITCH DIVERSION LOCATION:** Fill in the current Tax Map Key (TMK) number of the parcel where the ditch diversion is located, if applicable.
5. **STREAM DIVERSION:** How is water diverted from the stream to your property? Check the appropriate box(es). Is the diverted water returned to the stream or ditch? Check "Yes" or "No." If yes, enter the amount of water returned.
6. **FLOW MEASUREMENT INFORMATION:** Check "Yes" or "No." If you have a working flowmeter with a totalizer, answer "Yes" to this question, and fill in the date that the flowmeter was installed and any other information you may have (manufacturer, serial number, etc.). A totalizer directly measures the total use for the source (similar to a car's odometer). Otherwise, answer "No" and explain how stream diversion is measured or estimated to justify amounts requested in Table I

### EXISTING USER INFORMATION

7. **APPURTENANT RIGHT:** An appurtenant water right is a legally recognized right to a specific amount of surface freshwater – usually from a stream – on the specific property that has that right. This right traces back to the first time the land was converted to fee simple title; i.e., the Great Mahele and the issuance of either a Land Commission Award or Royal Patent. The quantity of water under the appurtenant right is the amount that was being used on the land shortly before or at the time of the Mahele.  
Do you claim an appurtenant right for your water use? Check "Yes" or "No."  
If yes, has your appurtenant right been established by the courts or the Commission? Check "Yes" or "No."
8. **END USER INFORMATION:** Are you an end user on an existing water system? Check "Yes" or "No". If yes, please list the name of the water system operator.
9. **REGISTRATION AND DECLARATION OF WATER USE:** Do you have a Registration and Declaration of Water Use from the Commission? Check "Yes" or "No". If yes, please list the name of the registrant(s).
10. **STREAM DIVERSION WORKS PERMIT (SDWP):** Have you ever been issued a SDWP by the Commission? If yes, please list the permit number(s). Otherwise, check "No."
11. **APPLICANT:** Please sign and print your name, and date your application.
12. **LANDOWNER:** Please sign and print your name, and date your application. The landowner shall be the joint applicant in the event the applicant is a lessee, licensee, developer, or any other person with a terminable interest or estate in the land which is the water source of the permitted water. §174C-51(1)(B)

## SURFACE WATER USE PERMIT APPLICATION EXISTING USE (NA WAI EHA, MAUI)

**TABLE 1: 12-MONTH AVERAGE DAILY USE - Measured or calculated use of water at the source or end use as of the effective date of designation, April 30, 2008.**

Please fill out Table 1 to calculate your existing use as of the effective date of the designation, April 30, 2008, of the Na Wai Eha Surface Water Management Areas. The effective date of designation is the date of the publication of the public notice of the Commission designation action. The qualifying dates have been filled in for this application. Fill in as completely as possible.

The 12-month average is the average daily use<sup>a</sup> of 12 months of consecutive use<sup>b</sup> from the last month<sup>c</sup> of the period.

- a. Average daily use. This is the average daily use for one month in gallons per day (GPD). To calculate this average, take the total use (in gallons) for the month, and divide this amount by the number of days in the month.
- b. 12 months of consecutive use. To calculate the average monthly withdrawal for 12 consecutive months of use, add the average daily use for all 12 months and divide that amount by 12.
- c. Last month. The last month of the period is the effective date of designation, April 30, 2008.

Check only one of the following boxes per row in Table 1:

- Metered – data is based on an operational meter with a totalizer.
- Estimated – data is based on some indirect measurement technique (e.g. measured flow rate multiplied by time of operation).
- Active but unknown – source is active, but there is no means to measure or estimate flow coming from source.
- Inactive – source was not pumped or diverted for the month.
- Other - describe how water use was measured or calculated in this box.

**TABLE 2: LAND USE CONSISTENCY/EFFICIENCY**

1. **PURPOSE / WATER USE CATEGORY:** Choose one of the following purpose or category codes listed below for each row in Table 2. There may be several purpose/categories on a single TMK, and each purpose or category must be listed in a separate row. Attach additional copies if necessary.

AGRICULTURE	
AGRAQ	Aquatic Plants & Animals
AGRCF	Crops & Processing
AGRLI	Livestock & Processing, and Pasture
AGRON	Ornamental & Nursery Plants
AGROTH	Other
DOMESTIC	
DOM	Single & Multi Low-Rise & High-Rise Household
DOMN	Domestic (Non-residential)
DOMNCB	Commercial Businesses
DOMNRI	Religious Institutions
DOMNHOS	Hospitals
DOMNHOT	Hotels
DOMNOB	Office buildings
DOMNOTH	Domestic Non-Residential – Other
DOMNSC	Schools
INDUSTRIAL	
INDEL	Geothermal, Thermoelectric Cooling, Power Development
INDFP	Fire Protection
INDMI	Mining, Dust Control
INDOTH	Industrial – Other
IRRIGATION	
IRRGC	Golf Course
IRRHM	Habitat Maintenance
IRRHOT	Hotel
IRRLA	Landscape/Water Features
IRROTH	Other
IRRPCA	Parks
IRRSC	Schools
MILITARY	
MIL	Military
MUNICIPAL	
MUNCO	County
MUNPR	Privately owned and operated but defined as a public system by the Department of Health
MUNST	State

2. **USE TMK:** The Tax Map Key number of the parcel over which the water is applied. There should only be one parcel for each line. Also, attach a TMK map(s) for the lots showing the boundaries of irrigated acreage, etc., as well as a photograph of the area of use.
3. **STATE LAND USE DISTRICT:** To find out the current Land Use District, contact the Land Use Commission at 587-3822.
4. **CDUP REQUIRED:** If a Conservation District Use Permit (CDUP) is required, enter either: "Yes" and the date the CDUP was approved if you have a CDUP applicable to this project; or "Yes" and "not acquired" in this box. If a CDUP is not required, enter "N" for no in this box. To check if your parcel is in the Conservation District, contact the Land Use Commission at 587-3822. If your parcel is in a Conservation District, contact the Department of Land and Natural Resources Office of Conservation and Coastal Lands at 587-0328 to find out if a CDUP is required.
5. **COUNTY ZONING CODE:** To find out the Zoning Code for your property, call Maui County Planning Department at 270-6279, or 270-7253
6. **SMAP REQUIRED:** If a Special Management Area Permit (SMAP) is required for this project, enter either: "Y" and the date SMAP was approved; or "Y" and "not acquired" in this box. If a SMAP is not required, enter "N" for no in this box. To find out if your property is in a Special Management Area and requires an SMAP, call Maui County Planning Department at 270-8205.
7. **QUANTITY OF USE:** Enter the quantity of use in gallons per day (GPD). Justification for the quantities requested may depend on your answers to items 8 and 9, and you should describe the justification in item 10.
8. **SUBMETERED? (Y/N):** If the specific use is submetered, enter "Y" for yes here. If it is not submetered, enter "N" for no. Submetering is specific to each line item.
9. **UNITS OR ACREAGE:** This is the value and category as the basis for calculating the duty. "Duty" is the amount of water used or requested for a "unit" over a specific time period, e.g. gallons per acre per day, or gallons/acre/day. "Unit" can mean dwelling units, or number of people, or animals. Examples to fill in for this category are: 400 dwelling units, 500 people, 3.74 acres.
10. **APPLICANT'S JUSTIFICATION FOR REQUESTED QUANTITY OF USE FOR ITEM 7:** Explain how you are justifying the amount you are requesting. Attach additional sheets if necessary.

**SURFACE WATER USE PERMIT APPLICATION  
EXISTING USE (NA WAI EHA, MAUI)**

**TABLE 3: IRRIGATION INFORMATION**

If you have grown crops in the year prior to the date of designation, please list all the crops (including landscape and golf course irrigation) that you have grown. Enter a single crop and single TMK per line. If you have multiple crops, list them all as separate line items. Attach additional copies of Table 3 if necessary.

1. **USE TAX MAP KEY (TMK):** Enter the parcel number where the crop is being grown. Attach a map outlining irrigated area(s) and photos.
2. **CROP:** Enter the crop type.
3. **TOTAL ACREAGE:** Enter the total acreage of the parcel listed.
4. **NET IRRIGATED ACREAGE:** Enter the acreage for the specific crop grown.
5. **BEGIN GROWTH PERIOD (MONTH):** This is the month of the start of the growth cycle. For perennial crops, list the 12<sup>th</sup> month prior to the date of designation.
6. **END GROWTH PERIOD (MONTH):** This is the month of the end of the growth cycle. For perennial crops, list the month of the date of designation.
7. **IRRIGATION SYSTEM:** Enter one of the following:
  - TRICKLE, DRIP
  - TRICKLE, SPRAY
  - MULTIPLE SPRINKLERS
  - SPRINKLER, CONTAINER NURSERY
  - SPRINKLER, LARGE GUNS
  - SEEPAGE, SUBIRRIGATION
  - CROWN FLOOD
  - FLOOD (TARO)
  - OTHER – Please describe.
8. **IRRIGATION PRACTICE:** Enter one of the following:
  - IRRIGATE TO FIELD CAPACITY
  - APPLY A FIXED DEPTH PER IRRIGATION
  - DEFICIT IRRIGATION
  - OTHER – Please describe.

**TABLE 4: ALTERNATIVES ANALYSIS**

Please address every alternative listed in Table 4 and whether or not they are available, for both potable and non-potable needs. Other alternatives on the last line may include stormwater reclamation, rainwater catchment, etc.

Surface water is defined in §174C-3 as *both contained surface water - that is, water upon the surface of the earth in bounds created naturally or artificially including, but not limited to, streams, other watercourses, lakes, reservoirs, and coastal waters subject to state jurisdiction - and diffused surface water - that is, water occurring upon the surface of the ground other than in contained waterbodies. Water from natural springs is surface water when it exits from the spring onto the earth's surface.*

**PUBLIC INTEREST**

Explain how the uses in your application are consistent with the public interest as described in §174C-2(c): *(i)the state water code shall be liberally interpreted to obtain maximum beneficial use of the waters of the State for purposes such as domestic uses, aquaculture uses, irrigation and other agricultural uses, power development, and commercial and industrial uses. However, adequate provision shall be made for the protection of traditional and customary Hawaiian rights, the protection and procreation of fish and wildlife, the maintenance of proper ecological balance and scenic beauty, and the preservation and enhancement of waters of the State for municipal uses, public recreation, public water supply, agriculture, and navigation. Such objectives are declared to be in the public interest.*

## Water Use Permit Application Attachment

### **Existing Source Information and other Exhibits**

Appended hereto as Exhibit 1 is a copy of the 7.5 minute-series USGS topographic map with Waikapū stream and the Waikō Road diversion labeled. Exhibit 2 is a TMK map showing the location of my property as well as a close-up of the property showing locations of my `auwai diversion and end uses. Exhibit 3 contains copies of photographs of my `auwai diversion and end uses. Exhibit 4 contains copies of Māhele documents establishing that my land was in kalo at the time of the Māhele.

### **Box 2: Source Landowner**

Not applicable pursuant to HRS § 174C-51(1)(B), because applicant does not have a terminable interest in the land which is the source of the permitted water. According to the Water Commission's records, which have not been verified, Avery Chumbley claims to be the source landowner.

### **Box 5: Stream Diversion**

I am a kuleana user along the North Waikapū kuleana `auwai that runs along Waikō Road. Water is diverted into the `auwai from the stream through a traditional po`owai (intake made with stones) near Ione Shimizu's house (see attached USGS topo map). The water continues makai in pipes and ditches until it passes my property where I divert some water via two 5/8 inch hoses to irrigate my dryland kalo, ti leaves, bananas, awa, lemongrass, hō`i`o ferns, mamake, and a variety of herbs, flowers, and fruit trees for subsistence purposes. See Exhibit 3. The diverted water does not return to the stream. My neighbor James Dodd shares my intake and also diverts some water from the `auwai via two 5/8 inch hoses on my property.

**Box 6:** See explanation for Table 2 Box 10, below.

### **Box 7:**

My property has appurtenant rights because it was in kalo cultivation at the time of the Māhele of 1848. Appended hereto as Exhibit 4 are true and correct copies of Land Commission Award No. 460, as well as supporting documents including native register and native testimony, which establish my property's appurtenant rights. In addition, I do not believe that these appurtenant rights have been extinguished. Although I purchased my property, my deed does not indicate that the appurtenant rights were reserved. I have

no evidence, indication, or any other reason to believe that my appurtenant rights have been extinguished. This application should be granted pursuant to HRS § 174C-63.<sup>1</sup>

**Table 1: 12-Month Average Daily Use**

As explained below in my response to Table 2, Box 10, my existing water use is not gauged. To complete Table 1, I used a modified bucket method to estimate our 12-month average daily use. Therefore, my best estimate of water use is 4,113 gallons per day (GPD).

**Table 2, Box 10: Justification for Requested Quantity**

I used a modified “bucket method” to measure the flow rate from my two hoses. On October 11, 2008, each of my 2 hoses filled a 1 quart jar in 7 seconds. Based on those figures, I calculated the amount of water flowing over a 24-hour period as 6,170 gallons per day. My irrigation application varies, depending on the season. During the wet, winter months, I may not irrigate at all. But, during the hot summer months, I sometimes irrigate continuously over a 24-hour period, rotating my sprinklers to various parts of my garden. Based on many years of water use, I believe that over a 12-month period, I irrigate using my hoses about 2/3 of the time. So, I estimate my average water use as 2/3 of 6,170 gallons per day or 4,113 gallons per day.

**Table 4. Alternatives Analysis**

Because my land has an appurtenant right to stream water, which is in the nature of an easement that was conveyed with the land at the time of the Māhele, I do not need to demonstrate that I have no practicable alternative source of water. My appurtenant right is for stream water, not to water from some other source, and my exercise of this appurtenant right enjoys maximum protection and first priority under the law.

Similarly, my traditional and customary right as a Native Hawaiian is to cultivate crops in a traditional manner, not in some other manner using alternative, non-traditional sources, and this traditional and customary right is constitutionally protected.

Finally, I am also an existing riparian use, which is constitutionally protected. See Haw. Const. art. XI, § 7 (preserving appurtenant rights and existing riparian uses).

Moreover, even if I did not have protected rights to water from Waikapū Stream, there is no potentially available alternative source that is economically practicable. I have a small non-commercial garden, including dryland kalo, ti leaves, bananas, awa,

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<sup>1</sup> HRS § 174C-63 provides: “Appurtenant rights are preserved. Nothing in this part shall be construed to deny the exercise of an appurtenant right by the holder at any time. A permit for water use based on an existing appurtenant right shall be issued upon application.”

lemongrass, hō`i`o ferns, mamake, and a variety of herbs, flowers, and fruit trees for subsistence purposes. The fruit and vegetables we grow feed my `ohana and are shared with neighbors and community members.

As shown below, each potentially available alternative water source imposes a cost on exercising my protected rights and existing riparian use. Requiring use of an alternate source would effectively deny my appurtenant and traditional and customary right to grow traditional crops on my land.

**Municipal Sources.** As long as I can remember, I have always used the `auwai water for my non-commercial gardening. Requiring me to pay for municipal water instead would impose an unfair and impracticable cost on my existing use.

**Wastewater reuse.** Reusing wastewater is impracticable because, as a small user engaged in non-commercial gardening, I do not have the means to hookup to and use that water. The closest wastewater treatment plant is in Kahului.

**Ditch system.** I am currently using water from an existing `auwai, although water is not available consistently and in sufficient amounts to support all of the existing uses on my system. Getting water from other ditch systems is not practicable. First, the other ditch systems in Nā Wai `Ehā do not consistently have enough water to support additional users. Second, I lack the property, access, permissions and funding necessary to permit and construct an additional ditch diversion. As a small user engaged in subsistence gardening, the cost of taking water from or constructing another ditch is not practicable, especially when I have appurtenant rights to water in the `auwai I am currently using.

**Desalinization.** Desalinization of brackish water is not a practicable alternative because I am not aware of any such plant having been built on Maui. According to the County's estimates, a plant is expected to be built in 2013 at the earliest.

**Ground Water.** Even if I were able to secure the permits necessary to drill a well and pump ground water for my uses, installing and operating such a well would be unprecedented and extremely burdensome. As a small user engaged in non-commercial gardening, I do not have the means to install and maintain such infrastructure and should not have to do so given my appurtenant rights to Waikapū stream water.

#### **Table 4, Public interest section:**

#### **My Existing Use is Consistent with the Public Interest**

Generally, "water use for diversified agriculture on land zoned for agriculture is consistent with the public interest." In re Waiāhole Ditch Combined Contested Case, 94 Hawai'i 97, 162, 9 P.3d 409, 474 (2000) ("Waiāhole I"). Further, HRS § 174C-2(c)

provides that the protection of traditional and customary Hawaiian rights, agriculture, and the maintenance of proper ecological balance and scenic beauty are “in the public interest.” I am a Native Hawaiian engaged in traditional agricultural practices, and my crops help to maintain ecological balance and scenic beauty. As such, my existing use of stream water is consistent with the public interest.

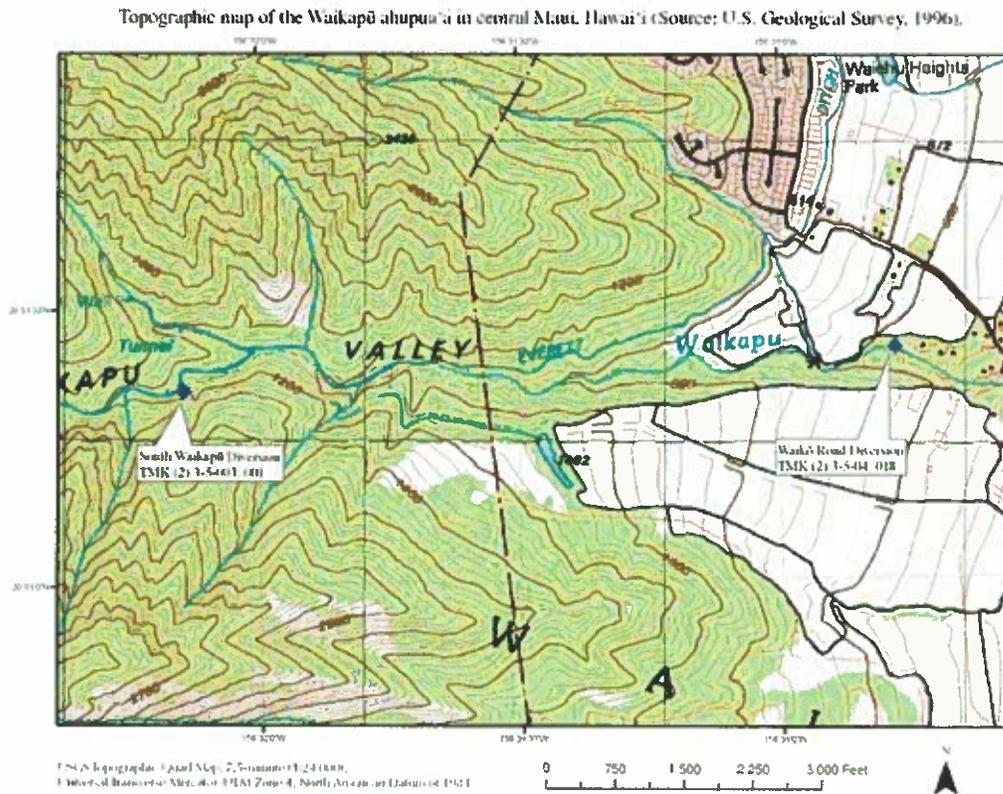
### **My Existing Use is a Protected Public Trust Purpose**

Traditional agriculture by Native Hawaiians is a protected public trust purpose. Waiāhole I, 94 Haw. at 137, 9 P.3d at 449; see also Haw. Const. art XII, § 7 (protecting traditional and customary Native Hawaiian rights); HRS § 174C-101(c) (specifically protecting the right to cultivate kalo on one’s own kuleana). My existing water use is also based on appurtenant rights, which is also a protected public trust purpose. Waiāhole I, 94 Haw. at 137 n.34, 9 P.3d at 449 n.34.

### **My Existing Use is a “Reasonable-Beneficial Use”**

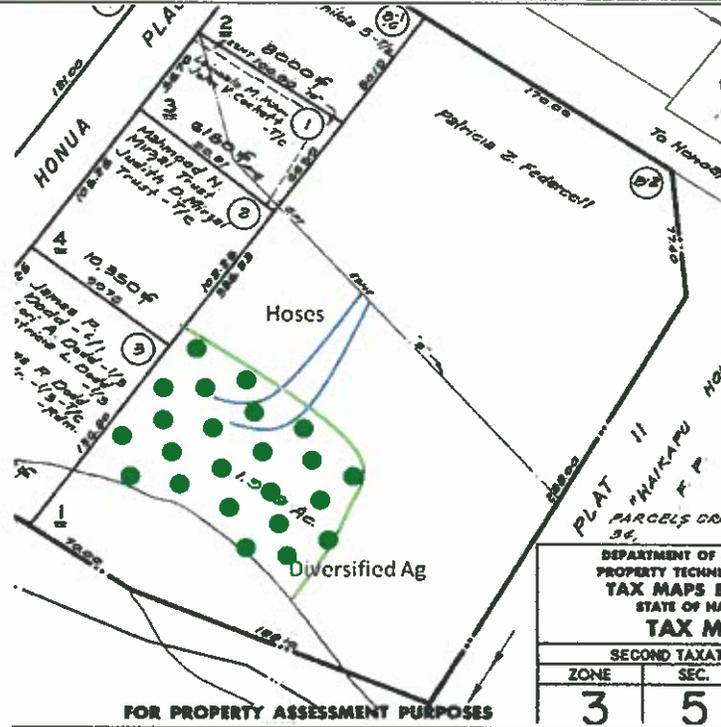
“Reasonable-beneficial use” is defined as “the use of water in such a quantity as is necessary for economic and efficient utilization, for a purpose, and in a manner which is both reasonable and consistent with the state and county land use plans and public interest.” HRS § 174C-3. As indicated, my existing use of stream water is consistent with state and county land use plans and the public interest. It is also “economic and efficient” because I only use the amount I need. I take steps to make my water use efficient. For instance, I use hoses to minimize water loss, and my farming practices include the use of mulch to protect the soil from erosion and minimize the use of water. Therefore, the water I use is a “reasonable-beneficial use.”

**EXHIBIT 1**  
USGS Map showing stream diversion location



**EXHIBIT 2**

TMK maps with diversion locations and water uses referenced; end uses are not to scale.



**EXHIBIT 3**

Photographs of surface water diversion and end uses

These are true and correct copies of photos taken on October 11, 2008. They accurately depict conditions at the time the photos were taken.

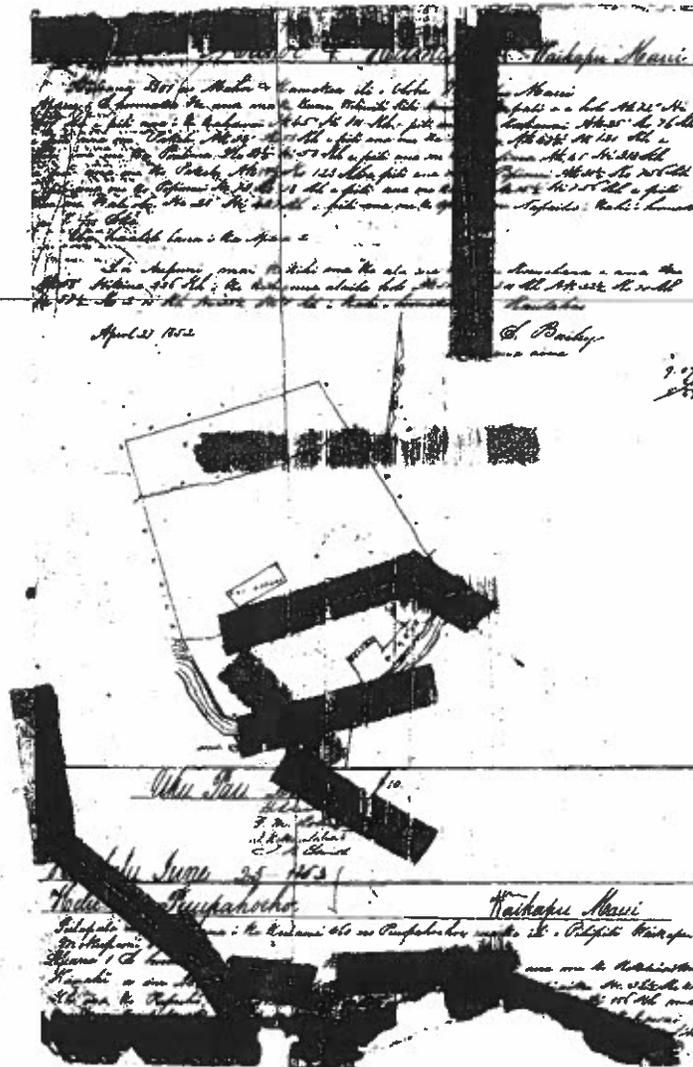
This is where my neighbor Jim Dodd and I divert water from the North Waikapū Kuleana `Auwai, which runs along Waikō Road. Two of the hoses are his; two are mine.

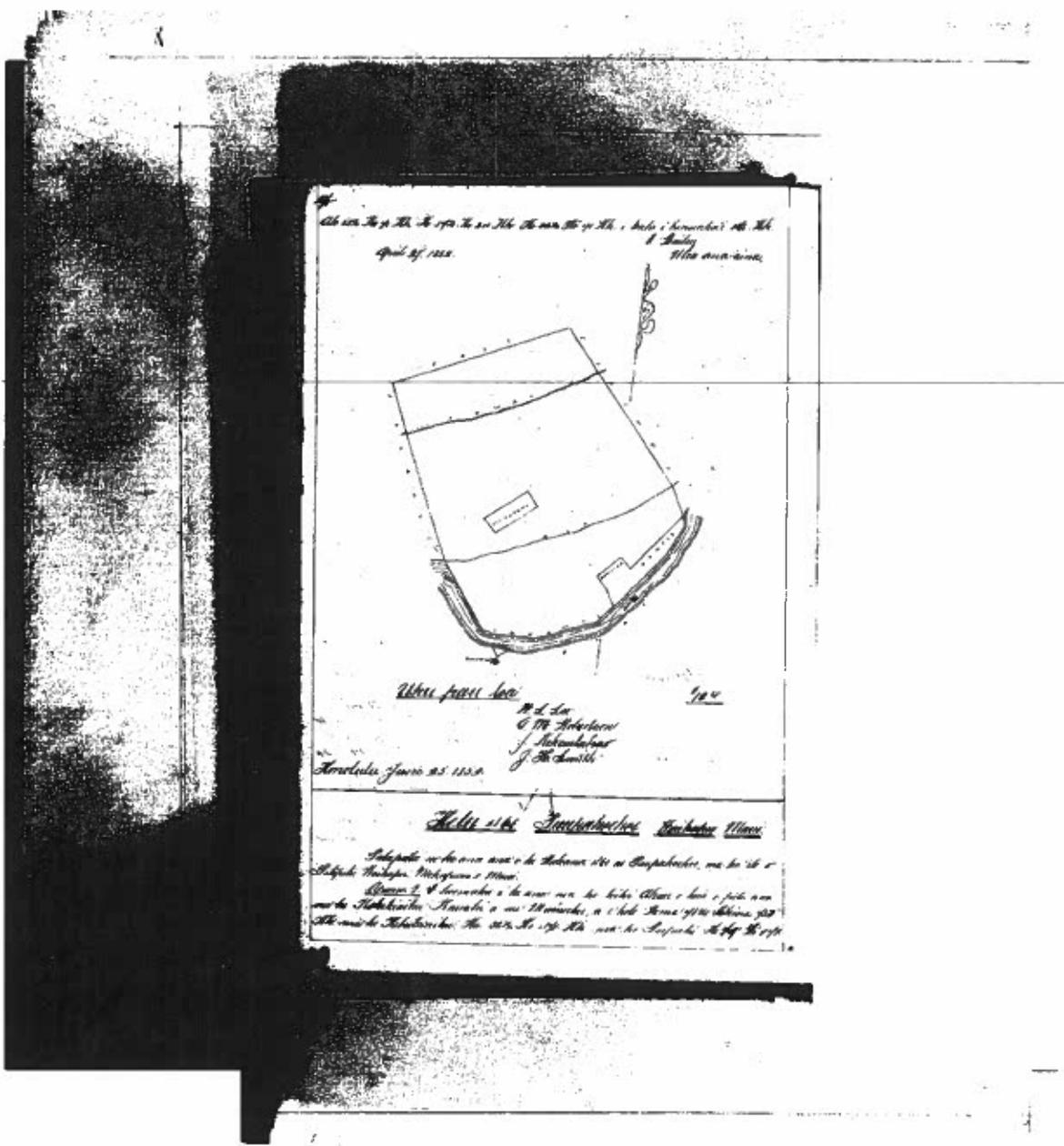


End Uses



**EXHIBIT 4**  
Copies of Original Māhele Documents  
establishing that my land was in kalo at the time of the Māhele







HELU 7937

**Palapala Sila Nui**

A KE ALII, MAMULI O KA OLELO A KA POE HOONA KULEANA.

*No ka HKS*, Ua hoooho na Luna Hoona i na kumu kuleana aia i ka olelo, he kuleana oiaio ko

*Keupahohoe*

Kuleana Hele *460*

na ke **Ano Aolelo** iloko o kahi i oiaioia malalo.

Nolaha, ua keia Palapala Sila Nui, ko hoike aku noi o **Kalakaaua**, ke Alii Nui a ke Akua i kama  
lokumakai i hoouho ai ma luna o ko tiawii Pae Aina, i na kanaka a pau, i keia ia noia hoo o no  
kone aua iopo Alii, a ua hoawi aku oia, ma ke **Ano Aolelo** i *Keupahohoe*  
i keia *Maui* wahi a pau loa ma *Maikapeu*

ma ka Makupuni o *Maui* paeai na mokuna:

*Alii o Keupahohoe Maikapeu Maui*

*he aua ma ke kahawai riki Kumuhoana mauka loa  
a o holo*

*Uki No 30 kb ma ka pali*

*67° 365 "*

*No 65 400 "*

*No 75 No 888 "*

*he kiki ma*

*kahawai a kiki ma*

*127/100 Hele*

Maloko o ea 127/100 1879

a oi iki aku, a emi iki nui paha. Ua koo nō i ke Aupuni na nino mumerela a me na metelo a yau.  
No Samuel B. Wilder  
ua nina la i hanaia ena ke Ans Alodio a no kōua mau hoolina, a mo kōua wathous; ua pili nō ena aniau  
a ka Pōe Aholelo o kau like ai ana ua nina alodio i kela manawa keia manawa.

**A I MĀN O I KĀN A I,** ua kau ena i kō'u inoa, a ma ka Sila Nui o ke Hawaii Pōe  
Aina ma Honolulu i keia la 11 o Januai 1879  
Samuel B. Wilder

Samuel B. Wilder

5/173

1842 Waiwaloheka

From Page 172

Hooihikiia o Puupahoehe  
Na ike no au i kahi o Waiwaloheka e hoopi  
mai nei, he malawake, aea ma ka hiki  
ma. Iao. nana no ia wahi maia a hua  
mua ka nohu ana, a ia Kaluwardhona  
i kua wa i paia ka mea ilio ai is in  
uole au loka ka mea i hema ai, Ma  
ike au ka nui o ka loaa malaila ia wa  
he mau no ka loaa malaila

Wailuku Feb. 18 1847

1847 Puupahoehe

Hooihikiia o Eka ma ka ole a ke  
kua. Na ike no au ia mau aina a pau  
a Pe hoopi aku nei ia oukou, o Oha,  
o Pipili, o Kukulakela, o Haamui, Olohe,  
o kona mau palena, o ke ala ai o  
Kauunui ma ka Hik. ma ka Hema  
o ke Ala a me ke kai, ma ke Koukouana  
ma ke kuahiwi mauka pono o Waikapu  
he mau kula no iloko o ka pa aina  
He aina o Pipili, he mau loi a ke  
kula kona, o Haamui he aina no ia,  
nana ke kuahiwi mauka o Waikapu  
he mau loi no malaila a me ke kula  
maloko o ka pa aina o Olohe, he  
loi no malaila a ke kula no wa  
kane ia e Kine i ke ko manua  
o kela mau loi i hoolimalimaia he  
vama ka waiwai i lilo malaila,  
a he Houu kahi a me na Kao he  
kanaka, oia ka lilo no kela mau  
loi

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Mai kahiko loa mai no ka loa ana o  
hia mau aina ia Puupahoehae. Aole  
ona mea nana i keakea mai.

Hookihia o Hawaii ma ka ole a ke  
Aha. Ma ike no au i kahi Puupahoehae  
o hoopii mai nei aia ma Waikapu  
o Ohia, o Pitipili, o Makahelakela  
o Haanui, o Plohe, no kona huahua  
ana mai kona Kalainohoni. He  
inoa no Keunohu mai ke Kalai-  
nohoni. Ma ike au i ka noho ana  
malaila, ma kahi aua no au o  
Waikapu, a hale kahi mau makahiki  
alaila hoi mai au a noho pu ma ka  
malaila, a ia wa lohe au he mau  
aina pono i kela no lakou. he  
/ koi paakai o Ohia a me ke kula  
a he kai no hoi mai ke ala ae,  
mai a Haunuike a me na kula  
eue i huli ana ma Wailuku, a he  
kula eae no iloko o ka pa aina o  
Waikapu, no Ohia, a he mau loi  
kahi he mau loi no ke Pitipili  
a he kula no hoi malohe o ka pa  
aina, O Haanui he mau loi no  
kona a me ke kula no, a no  
Haanui no hoi ke huahua o Waika-  
hu, o Makahelakela, he kula kona,  
o Plohe mau loi no kona a me  
ke kula, aia ma ka Hanu, ka  
hale puhi. He mau loi no  
kahi o Puupahoehae i ho'ouma'ouma

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ia, he wana he kuniu a he honu  
kahi a me na hao he kanaka, a he  
Mano he kahi i lilo no ka huna ana  
a he ia maoli no kahi i lilo aku  
he ka mea wana i heahea o Haunui  
Ha ae mai no ia no Haunui io no ia  
aina.

~~Hele~~ Halualani

Hookikua o Halehua ma ka olelo a ke Aha  
Ha ike no au i kahi o Halualani, aia ma  
Kapaakukui ma Iao, noiu aku kona noho  
ana malaila, no Mahune mai koe, a  
no ka Mei mai ke Mahune, he kumakolu  
kumamalina aie Ioi i hawi ai, a oha  
ma kahi eae, a huiia he hanakoluhuma  
ma iwa a pau, ole ona mea wana i hea  
hehea mai.

Hookikua o Kuhu ma ka olelo a ke Aha  
Ha ike no au i kahi o Halualani i hookii mai  
mei ia eukou, noiu aku kahi mau Ioi ona  
no Mahune mai koe, a no Kamohamohane  
mai ke Mahune, aia ma Kapaakukui  
kauwahi ona he aina oha no ia, aia  
ma Kaluauhi kahi ona, ole nae au ike  
kono i ka nui o na Ioi malaila, ole  
no hoi he mea ona wana i heahea

oia ke kuleana ma ua wahi nei o kela  
 wahi i kulelani ai ka hale lua e Mahune  
 Aole i ae aku o Papa ia kulelani ana a kua  
 hune, nui ke lani huapapa ana no ia  
 wahi, me ka ae ole aku nae o Papa. Penei ka  
 Mahune ~~ma~~ ia Papa, oia e ini i wa  
 hi no maui, oia kahi i hekeiaia, Penei  
 nae aua, moe ka Wai ka auwai, ma  
 ka Hokiina ka auwai, ma ka Homa  
 ke ala auwai, ma ke Homohoma ka  
 lae o Kiihelani a me na lae o Apiki;  
 oia na palena o ua wahi nei oia ma ka  
 ili oia o Kalaula kua wahi

W. Paulsen } Na Niuakaukau ke  
 13, Feb. 1847 } Kahu o Mileka

Hulu 160 Puaopuaehoe  
 Ma Eua Lina Ooria } Waiapu Feb. 15, 1847

Ke hae aku nei au ia olea  
 i kua maui kuleana aia, ma Waiapu nei  
 Eua na maui kuleana la au e hae aku nei  
 ia olea, Ooria, no Kalanikoupi'i maui kua  
 olea aia ma Waiapu nei oia kua kulea  
 na i noho ai, naka o Kalanikoupi'i, i kua  
 wai ma lae o Kaunimulani, Ooria no ma  
 kua kuleana maui, o na palena Ooria, o Ma  
 lae oia ma ka Paakai, a me ke hae a me ke  
 kula, o kaunimulani, niai ke ala a a hiki;  
 Kaunimulani maui Kaunimulani a hiki i  
 Kiihelani ma ka palena Ooria  
 Oia kulelani maui kuleana oia e hae aku  
 nei ia olea o Piliipili, a oia Waiakohala  
 a me Kaunimulani no Kaunimulani kua kulelani maui

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ka pono o Waikehu he wahi kula ho  
Pilepili maliki, ka pa ania  
Eia kakahe wahi kula Poha ma  
laka nei o ka pa ania e pili ana ma  
Kukuiakaimaka, a me Hoapalaalaa  
a me Paala, Maku e Heaunakua o  
Hoakumama ni maluna, i wai no  
ke kamahe Maku e Hoakumama o  
Huiam ni maluna iu, a maku o Ki-  
wai e Hoapili M. ni maluna o Maku  
e Hoapili M. e Heaunakua ni maluna  
iu, a maku e Heaunakua e Heaunakua  
ni maluna iu e noho nei i kea ma-  
nawa, e wai a me tam kakahe iu e  
Hawaha.

Eia kakahe kula ana iu e noho  
nei i Ohe he wahi kula no kama ma-  
laka nei o ka pa ania, e pili ana e Pa-  
lailaha a me Paliakua, a me Pili-  
pili a me Huiam.

Eia no koi man kula ana pono  
mai koi mahe ana ma.

Eia kakahe Ika e kama man Pa-  
laila iu (elima 5) ma koi waiwai  
pono i kama e kakahe man Poi e ho-  
hualaha ia e au e kela wa kakahe he  
kama he Hoakua, kakahe Heaunakua  
kama.

Ma ma J. P. P. P.