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

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COMMISSION ON WATER RESOURCE MANAGEMENT
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Event ID: SWUP.2227.6

SWUP No. 30

**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 | Applicant's Contact | 2. SOURCE LANDOWNER'S NAME | Source Landowner's Contact |
|---|---|---|---|
| Richard Emoto | Roys Ellis | Wailuku Water Company LLC | Avery Chumbley |

| Applicant's Mailing Address, or Principal Place of Business | Source Landowner's Mailing Address, or Principal Place of Business |
|---|---|
| PO Box 2748<br>Wailuku, HI 96793 | 255 East Waiko Road<br>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 |
|---|---|---|---|---|---|
| [redacted] | | | | | |

## 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 (Zone) - 2 (Sector) - 014 (Plat) : 001 (Parcel)

**4b. TMK OF DITCH DIVERSION LOCATION:** 3 (Zone) - 2 (Sector) - 004 (Plat) : 011 (Parcel)

**5. STREAM DIVERSION:** How is water diverted from the stream to your property? Check all that apply.

☒ Pipe ☐ Pump ☒ Ditch/auwai ☐ Other Describe: See Attachment A

Is the diverted water returned to the stream or ditch? ☒ Yes. ☐ No. If yes, how much water is returned? See Attachment A

**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

See Attachment A, Table 2, Box 10

## 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? Wailuku Water Company

**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): J Kalanui

☐ 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 | 12. SOURCE LANDOWNER |
|---|---|
| Richard N. Emoto<br>Signature | Signature |
| Richard N. Emoto 04/04/09<br>Print Date | Print Date |



FILE ID: SWUP. 2227.6
DOC ID: 3231✓

## 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 | 432,000 | ☐ | ☒ | ☐ | ☐ | |
| June 2007 | 432,000 | ☐ | ☒ | ☐ | ☐ | |
| July 2007 | 432,000 | ☐ | ☒ | ☐ | ☐ | |
| August 2007 | 432,000 | ☐ | ☒ | ☐ | ☐ | |
| September 2007 | 432,000 | ☐ | ☒ | ☐ | ☐ | |
| October 2007 | 432,000 | ☐ | ☒ | ☐ | ☐ | |
| November 2007 | 432,000 | ☐ | ☒ | ☐ | ☐ | |
| December 2007 | 432,000 | ☐ | ☒ | ☐ | ☐ | |
| January 2008 | 432,000 | ☐ | ☒ | ☐ | ☐ | |
| February 2008 | 432,000 | ☐ | ☒ | ☐ | ☐ | |
| March 2008 | 432,000 | ☐ | ☒ | ☐ | ☐ | |
| April 2008 | 432,000 | ☐ | ☒ | ☐ | ☐ | |
| **SUM OF AVERAGE DAILY USE FOR THE MONTH** | 5,184,000 | GPD | | | | |
| **AVERAGE DAILY USE (Average of the above)** | 432,000 | GPD | | | | |

## 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 TMK 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. |
| Uses that require **potable** (drinking) water | | | | | | | | | |
| | ___ - ___ - ___ : ___ (Zone Sector Plat Parcel) | | | | | | | | |
| | ___ - ___ - ___ : ___ (Zone Sector Plat Parcel) | | | | | | | | |
| | ___ - ___ - ___ : ___ (Zone Sector Plat Parcel) | | | | | | | | |
| | ___ - ___ - ___ : ___ (Zone Sector Plat Parcel) | | | | | | | | |
| | | | | | TOTAL POTABLE USE | | GPD | | |
| Uses that **do** not require potable water | | | | | | | | | |
| DOM | 3 - 2 - 004 : 011 (Zone Sector Plat Parcel) | Rural | No | RU-0.5 | No | 432,000 | No | 0.4 | See Attachment A |
| AGRCP | 3 - 2 - 004 : 011 (Zone Sector Plat Parcel) | Rural | No | RU-0.5 | No | N/A | No | 0.4 | See Attachment A |
| AGRCP | 3 - 2 - 004 : 012 (Zone Sector Plat Parcel) | Rural | No | RU-0.5 | No | N/A | No | 0.045 | See Attachment A |
| | ___ - ___ - ___ : ___ (Zone Sector Plat Parcel) | | | | | | | | |
| | | | | | TOTAL NON-POTABLE USE | 432,000 | GPD | | |
| | | | | | TOTAL USE REQUESTED (Sum of Total Potable Use and Total Non-Potable Use above) = | 432,000 | GPD | | |

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 - 2 - 004 : 011 (Zone Sector Plat Parcel) | Wetland Kalo | 0.8 | 0.4 | Annual | Annual | Flood (taro) | Irrigate to Capacity |
| 3 - 2 - 004 : 011 (Zone Sector Plat Parcel) | Diversified Agriculture | 0.8 | 0.4 | Annual | Annual | Multiple Sprinklers, Crown Flood | Irrigate to Capacity |
| 3 - 2 - 004 : 012 (Zone Sector Plat Parcel) | Wetland Kalo | 0.045 | 0.045 | Annual | Annual | Flood (taro) | Irrigate to Capacity |
| - - : (Zone Sector Plat Parcel) | | | | | | | |
| - - : (Zone Sector Plat Parcel) | | | | | | | |
| - - : (Zone Sector Plat Parcel) | | | | | | | |
| - - : (Zone Sector Plat Parcel) | | | | | | | |
| - - : (Zone Sector Plat Parcel) | | | | | | | |
| - - : (Zone Sector Plat Parcel) | | | | | | | |
| - - : (Zone Sector Plat Parcel) | | | | | | | |

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

### TABLE 4: ALTERNATIVES ANALYSIS

| | **Potable Alternatives**<br>Attach additional sheets if necessary. | **Non-Potable Alternatives**<br>Attach additional sheets if necessary. |
|---|---|---|
| Municipal sources | Not Applicable | See Attachment A |
| Wastewater reuse | Not Applicable | See Attachment A |
| Ditch system | Not Applicable | See Attachment A |
| Desalinization | Not Applicable | See Attachment A |
| Ground water | Not Applicable | See Attachment A |
| Other (specify) | Not Applicable | See Attachment 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 A, Table 4

# 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.

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 o 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/

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 1

#### 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[a] of 12 months of consecutive use[b] from the last month[c] 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 |
| AGRCP | 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-residantial) |
| 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 |
| IRRPA | 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 12th 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): *(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.*

**Attachment A: Supplemental Information**

Attachment B is a copy of the 7.5 minute-series USGS topographic map with the Waihe`e River and the Spreckels and Waihe`e Ditch Diversions labeled. Attachment C is a TMK map with our land highlighted and arrows indicating the general flow of the `auwai onto and off of our land. Attachment D includes photographs depicting our diversion from the `auwai, water wheel, end uses, including a portion of Roys Ellis's yard and domestic garden, and a portion of his lo`i kalo. Attachment E is described below.

**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, Wailuku Water Company claims to be the source landowner.

**Box 4a:**

Although our `auwai currently receives water diverted from TMK No. 3-2-014:001, we seek to resume diverting water to our `auwai directly from Waihe`e River at TMK No. 3-2-004:001, as we historically did.

**Supplemental Information for Box 5: Stream Diversion**

We are kuleana users along the North Waihe`e Valley kuleana `auwai. Water is diverted from Waihe`e River at the Waihe`e and Spreckels diversions (see attached USGS topo map). All the water from the Spreckels diversion enters the Spreckels Ditch, as does some water from the Waihe`e diversion. The North Waihe`e Valley kuleana `auwai receives water via a pipe in the Spreckels Ditch (see attached photo). The pipe empties into an open `auwai on the north side of Waihe`e River (see attached photo). The `auwai splits into two, and one of the branches flows through our land.

The water enters our land a via a pipe (see attached photo), then flows through our water wheel (see attached photo), which Roys Ellis uses to generate electricity for his home. After going through the water wheel, Mr. Ellis uses some of the water in his home for domestic purposes and some water flows through his lo`i kalo in an open ditch. Some water is taken via a pipe and sprinkler system to water his yard and non-commercial garden. Except for the small amount of water that seeps into soil or evaporates, the outflow from the lo`i kalo and the water remaining in the `auwai that is not used continues in the `auwai to our neighbors' lands, including the Faustinos (TMK No. 3-2-004-013) and the Kalanuis (TMK No. 3-2-004-014), and eventually back to Waihe`e River. We estimate about 430,800 gallons per day is returned to the `auwai after we use it to generate hydroelectricity and irrigate our wetland kalo (see below Supplemental Information Table 2, Box 10).

**Supplemental Information for Box 7:**

Our property has appurtenant rights because it was in kalo cultivation at the time of the Māhele of 1848. Royal Patent Nos. 4120 & 6149, Land Commission Award No. 4405:P-1, and the supporting testimony establish our property's appurtenant rights, and true and correct copies are appended to this application. We have no evidence, indication, or any other reason to believe that our appurtenant rights have been extinguished. This application should be granted pursuant to HRS § 174C-63.

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

We used Mr. Ellis's water wheel to calculate that we use 300 gallons per minute, or 432,000 gallons per day, to generate hydroelectricity. This is the minimum amount of water Mr. Ellis needs to generate electricity for his home, which is supplemented with solar panels. We estimated our existing water use for wetland kalo cultivation is 120,000 gallons per day by multiplying the amount of land we had in wetland kalo cultivation on April 30, 2008 (0.4 acres) by 300,000 gallons, the average amount of water we understand is required to grow healthy wetland kalo.

As described above, nearly all of the water that runs through our water wheel and lo`i kalo is returned to the `auwai where it flows to our neighbors' lands and eventually back to Waihe`e River. The water Mr. Ellis uses in his home for activities such as showering and washing dishes and clothes, and the water used to irrigate Mr. Ellis's yard and domestic garden (including crops like beans, broccoli, cherry tomatoes, eggplant, and daikon) is not returned to the `auwai. Based on the 2002 State of Hawai`i Water System Standard for Maui County of 3,000 gallons per acre per single family home, we estimated that about 1,200 gallons per day of the 432,000 gallons is used for domestic purposes and domestic (non-commercial) farming by multiplying 3,000 gallons per acre by the total acreage of TMK No. 3-2-004:011 (0.8 acres) minus the amount of land we have in wetland kalo cultivation (about 0.4 acres). Thus, except for the small amount of water that seeps into the lo`i kalo, about 430,800 gallons per day is returned to the `auwai after we use it to generate hydroelectricity and irrigate the wetland kalo.

**Table 4: Alternatives Analysis**

Because our 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, we do not need to demonstrate that we have no practicable alternative source of water. Our appurtenant right is for stream water, not to water from some other source, and our exercise of this appurtenant right enjoys maximum protection and first priority under the law.

Moreover, even if we did not have a protected right to stream water, there is no potentially available alternative source that is economically practicable. We generate hydroelectricity and cultivate kalo and other crops on our land for subsistence purposes; the crops we grow feeds our family and is shared with neighbors and community members. An alternative water source that would require us to pay for the volumes of constantly flowing

water in our lo`i necessary to keep temperatures cool and support healthy kalo would make our use economically impossible. We would effectively be denied our appurtenant right to grow kalo and crops on our land. As shown below, each potentially available alternative water source imposes a cost on exercising our protected right.

**Municipal Sources**. We do not have a county water meter. Even if the Maui County Department of Water Supply were willing to provide municipal water for my hydroelectricity, kalo cultivation, and non-commercial gardening by installing a large water meter, the cost of using municipal water for such purposes would be prohibitive. Additionally, water from the Maui County Department of Water Supply is chlorinated, which is detrimental and unsuitable for wetland kalo.

**Wastewater reuse**. Reusing wastewater is impracticable because we would still be required to pay for large volumes of flowing water. As a small user engaged in hydroelectricity generation, wetland kalo cultivation, and non-commercial gardening, we do not have the means to hookup to and use that water. The closest wastewater treatment plant is in Kahului.

**Ditch system**. We are currently using water from an existing `auwai, although water is not available consistently and in sufficient amounts to support the existing uses on our system, including our own uses. 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, we lack the property, access, permissions and funding necessary to permit and construct an additional ditch diversion. As a small user engaged in hydroelectricity generation, wetland kalo cultivation, and non-commercial gardening, the cost of taking water from or constructing another ditch is not practicable.

**Desalinization**. Desalinization of brackish water is not a practicable alternative because we are 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 we were able to secure the permits necessary to drill a well and pump ground water for our uses, installing and operating such a well to provide flowing water for hydroelectricity generation and wetland kalo would be unprecedented and extremely burdensome. As a small user engaged in hydroelectricity generation, wetland kalo cultivation, and non-commercial gardening, we do not have the means to install and maintain such infrastructure.

**Table 4: Public Interest**

**Our 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." Our cultivation of wetland kalo and other fruits and vegetables for home use satisfies three objectives: we grow kalo in a traditional manner; our existing use is for agriculture; and our lo`i kalo and return flows to Waihe`e River help to maintain ecological balance and scenic beauty. As such, our existing use of stream water is consistent with the public interest.

**Our Existing Use is a Protected Public Trust Purpose**

The exercise of appurtenant rights is a protected public trust purpose. Waiāhole I, 94 Haw. at 137 n.34, 9 P.3d at 449 n.34. Additionally, because much of the water we use is returned to the `auwai and Waihe`e River, our use supports other existing public trust purposes such as: (1) the maintenance of waters in their natural state; (2) resource protection; (3) water for domestic purposes; and (4) the protection of traditional and customary Native Hawaiian rights.

**Our Existing Use Supports Beneficial Instream Uses**

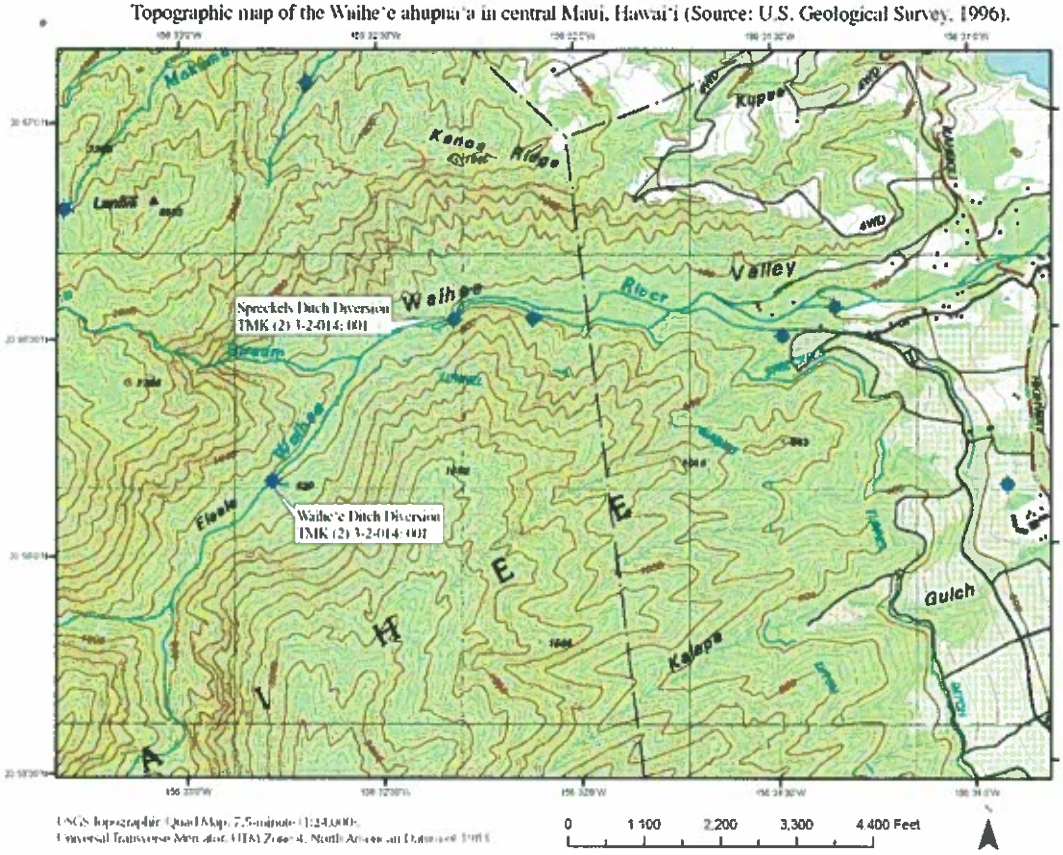
Because we return much of the water we use for hydroelectricity generation and kalo cultivation is returned to the `auwai and Waihe`e River, our existing use also supports beneficial instream uses such as: (1) the maintenance of fish and wildlife habitats; (2) outdoor recreational activities; (3) maintenance of ecosystems such as estuaries, wetlands, and stream vegetation; (4) aesthetic values such as waterfalls and scenic waterways; (5) maintenance of water quality; (6) the conveyance of irrigation and domestic water supplies to downstream points of diversion; and (7) the protection of traditional and customary Native Hawaiian rights. See HRS § 174C-3.

**Our Existing Use is a "Reasonable and Beneficial" Use**

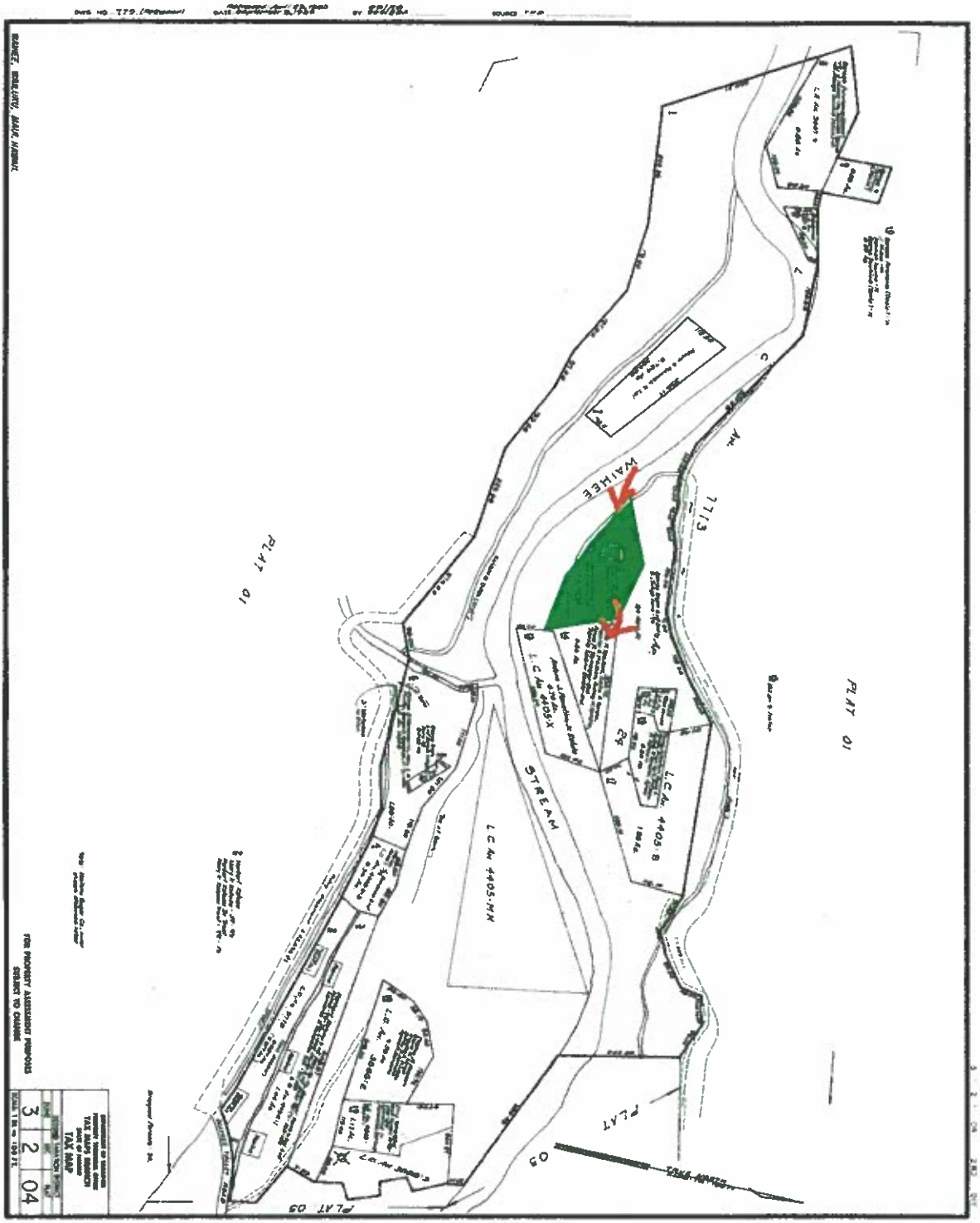
"Reasonable-beneficial use" is defined as "the use of water in such a quantity as is necessary for economic and efficient utilization, for a purpose, and in a manner which is both reasonable and consistent with the state and county land use plans and public interest." HRS § 174C-3. As indicated, our 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 we only use the amount we need. We take steps to make our water use efficient. For instance, we use pipes where appropriate to minimize water loss, and our farming practices include the use green manure to protect the soil from erosion and minimize the use of water. Therefore, the water we use is a "reasonable-beneficial use."

## Attachment B: USGS Topographical Map

Topographic map of the Waihe'e ahupua'a in central Maui, Hawai'i (Source: U.S. Geological Survey, 1996).



## Attachment C: TMK Map



**Attachment D: Photographs of Diversion and End Uses**

Above photograph depicts the pipe bringing water across Waihe`e River and into the North Waihe`e Valley `auwai.

Above photograph depicts water flowing in the North Waihe`e Valley `auwai.

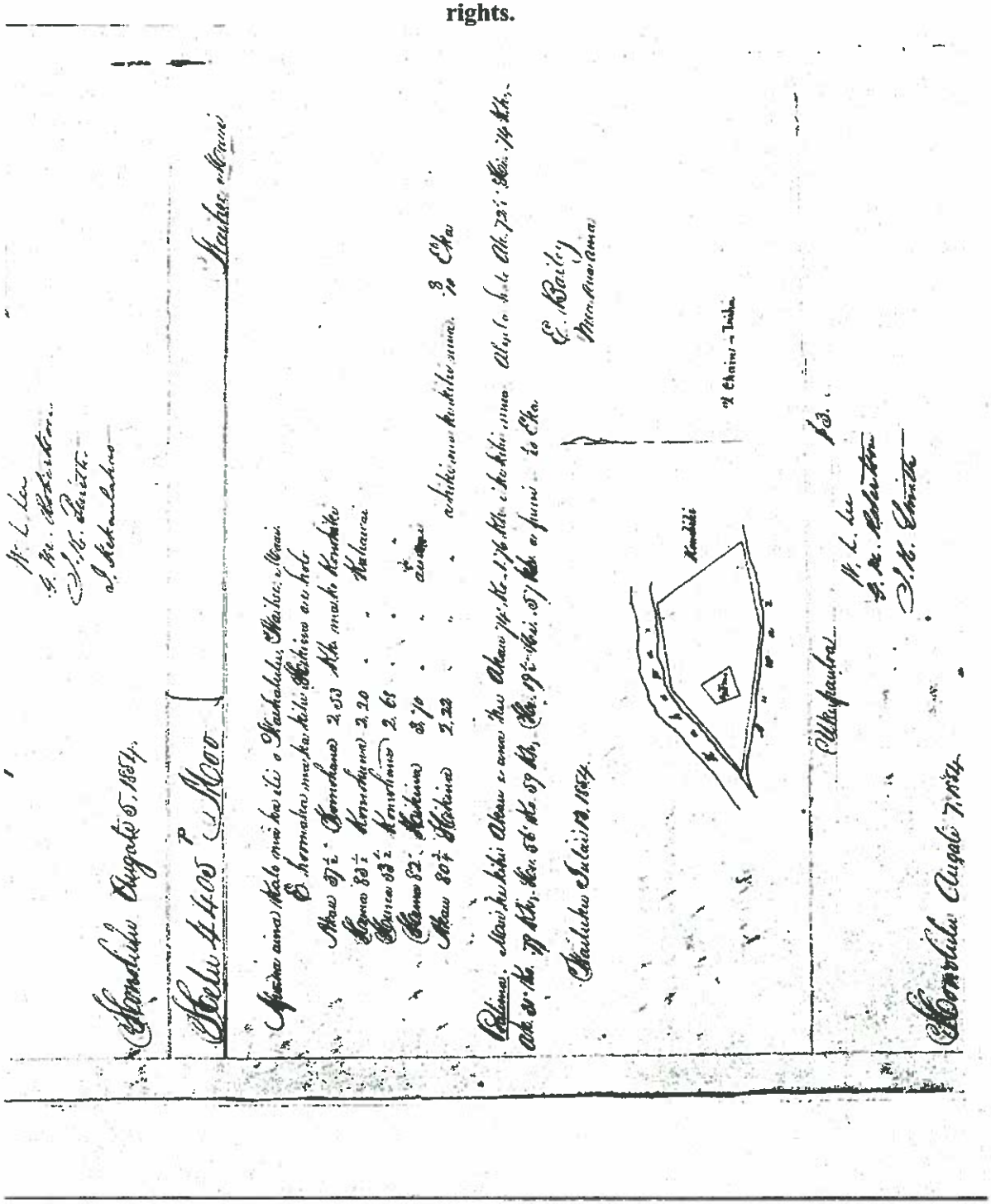
Above photograph depicts the pipe that brings water to Roys Ellis's water wheel.

Above photograph depicts Roys Ellis's water wheel.

Above photograph depicts a portion of lo`i kalo.

Above photograph depicts a portion of the irrigated area, including grass, ti-leaf, and banana.

**Attachment E: Māhele documents establishing appurtenant rights.**



Honolulu Dec. 31 1852

Helu 4405 P Moo. Waihee Maui.

Apana 1. Ua kaalelo ia.

Apana II & IV Ili Waepae 3 D. 4 S. E hoomaka ke ana ma ke hihi Hema, kia, e pili ana me Kahawai. Ak. 73. Hik 335 Kontakoo ma Kahawai. Ak. 38. Kom. 769 Kh. ma Kalepo, Hem. 50½ Kom. 133 Kh. ma Paa pohaku. Hem. 46. Hik. 84 Kh. ma Pealima. Hem. 46. Kom. 155 Kh. ma Pealima, Hem. 43½. Hik. 155 Kh. ma Kanaalaala. Ak. 21¾. Hik 138 Kh. ma Kauhi. Hem. 45. Hik 106 Kh. ma Kauhi. Hem. 24. Kom. 137 Kh. ma Kauhi. Hem. 26½. Hik. 292 Kh. ma Kanaalaala, a hiki i kahi i hoomakai, a malokoo ia anapuni 1.73/100 Eka.

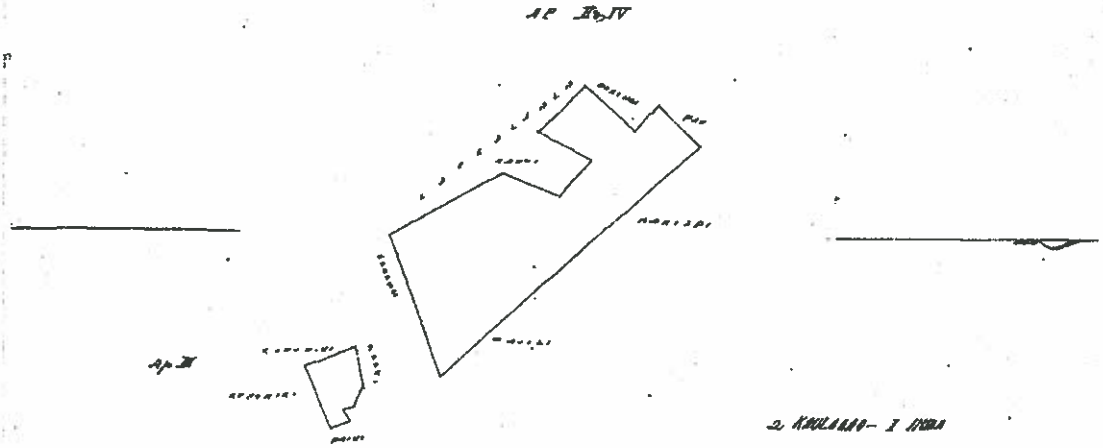
Apana III Ili Ahuakolea. E hoomaka ke ana ma ke hihi Akau, kia, e pili ana me Kauhi

| | | | | |
|---|---|---|---|---|
| Hema. | 83½ | Komoloana. | 92 Kh. | Kauhi |
| He. | 17½. | Hik. | 123 " | Konohiki. |
| Hi. | 70 | Hi. | 156 " | Kahawai. |
| Ak. | 13¾. | Kom. | 44 " | Paiki. |
| Hem. | 69. | Kom. | 33 " | " |
| Ak. | 14½ | Kom. | 23 " | " |
| Ak. | 62½ | Kom. | 52 " | Konohiki. |

a hiki i kahi i hoomakai, a malokoo ia anapuni 14/100 Eka.

Waihuka July 7 1852

John S. Gunn.
Mea ana aina




Ukeu Pau Loa $ 6.
W. Lee
G. M. Robertson
J. K. Smith
J. Mekaulaha

Honolulu Jan. 4, 1853.

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HELU 6149

# PALAPALA SILA NUI

## A ke Alii, mamuli o ka olelo a ka Poe Hoona Kuleana,

NO KA MEA, Ua hoohelo na Luna Hooda i na kumu kuleana aina i ka olelo, he kuleana olelo ke Moo Kuleana Helu 4405 Ma

ma ke Ano Alodio iloko o kahi i oleloia malalo.

Nohoa, ma keia Palapala Sila Nui, ke hoike aku nei o Kamehameha IV., ke Alii nui a ke Akua i kona lokomaikai i hooaoho ai maluna o ke Hawaii Poe Aina, i na kanaka a pau, i keia la nona iho, a no kona mau hope alii, na hanwi aku pu, ma ke Ano Alodio ia Moo

i kela wahi a pau loa ma Ni Waihahila – Waihee

ma na moku nui o Maui penei na mokuna:

Kalo – Ehoomaka ma ka Wahi Hoo e Hoo

Maui 87½ Kom 2.53 Kaul ma Hoohiki

Renua 83½ " 2.30 " " Kahawai

" 53½ " 2.68 " " "

" 82 Hoo 3.70 " " Nuwai

Maui 80¾ " 2.22 " " "

Re 0.80 Ea

ilalo Halima 5

0.75 Ea

Maleko o ....Kéia..... apana ..... 0.75 ..... Eha

a ei iki aku, a emi iki mai paha. Ua koe nae i ke Aupuni na mine minerala a me na metala a pau.

No .....Moo.....

na aina la i haawiia ma ke **Ano Alodio** a no kona mau hoolilua, a me kona waihona; ua pili nae ka auhau a ka Poe Ahaolelo o

kau like ai ma na aina alodio i kela manawa i kela manawa.

A I MEA E IKEA AI, ua kau wau i ko'u inoa, a me ka Sila Nui o ke Hawaii Pae

Aina ma Honolulu i kela la .....

15 o ....October..... 1887

Kamehameha R.

By the King
F.W. Rutchison

L.R.P. 6149

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HELU Helu.

# PALAPALA SILA NUI.

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

**NO KA MEA,** Ua hoohole na Luna Hoona i na kuniu kuleana aina i ka olelo, he kuleana oiaio ko Moo Kuleana Helu 4405 P.
ma ke **Ano Alodio** iloko o kahi i nieloia malalo.

Nolaila, ma keia Palapala Sila Nui, ke hoike aku nei o Kamehameha IV, ke Alii nui a ke Akua i kona lokomaikai i hoonoho ai maluna o ko Hawaii Pae Aina, I na kanaka a pau, i keia la nona iho, a no kona mau hope alii, ua haawii aku oia ma ke **Ano Alodio** la Otoo.

I keia wahi a pau loa ma Waihee Ili o Waepae
ma ke mokupuni o Maui, penei na mokuna,

Apana 1. Ua haalele oia. Apana 2. & 4. E hoomaka ma ke Kihi Hema. e pili ana me ke Kahawai. a e holo

| | | | | | |
|---|---|---|---|---|---|
| Akau | 73° | Hik | 3.35 | Kaulahao e pili ana me | Kahawai |
| Akau | 38° | Kom | 7.69 | " " | Kalipe |
| Hema | 58½° | Kom | 1.33 | " " | Papohaku |
| Hema | 46° | Hik | .84 | " " | Poalima |
| Hema | 46° | Kom | 1.55 | " " | " |
| Hema | 43½° | Hik | 1.55 | " " | Kanealaala |
| Akau | 29¾° | Hik | 1.38 | " " | Kauhi |
| Hema | 45° | Hik | 1.16 | " " | " |
| Hema | 24° | Kom | 1.37 | " " | " |
| Hema | 26½° | Hik | 2.92 | " " | Kanealaala. |

A hiki Kahi i hoomakai. Ke Anapuni 1 43/100 Eka.

Apana 3. E hoomaka ma ke Kihi Akau o Keia pili ana me Kauhi a holo

| | | | | | |
|---|---|---|---|---|---|
| Hema | 83½° | Kom | .92 | Kaul. pili me ke | Kauahi |
| Hema | 17°½ | Hik | 1.22 | " " | Kinohiki |
| Akau | 70° | Hik | 1.56 | " " | Kahawai |
| Akau | 13½° | Kom | .44 | " " | Paiki |
| Hema | 69° | Kom | .33 | " " | " |
| Akau | 14½° | Kom | .23 | " " | " |
| Akau | 62½° | Kom | .52 | " " | Kinohiki. |

A hiki i Kahi i hoomakai. Ke Anapuni 14/100 Eka.

Maloko o Kuá mau kpana 1 87/100 Ele

a oi iki aku, a emi iki mai paha. Ua koe nae i ke aupuni ua mine minerala a me na metala e pau.

No Moo

ua aina la i haawiia ma ke ANO ALODIO a no kona mau hooilina, a me kona waihona; ua pili pae ka aohau a ka Poe Ahaolelo e kau like ai ma na aina alodio i keia manawa i keia manawa.

A i mea e ikea ai, ua kau wau i ko'u inoa, a me ke Sila Nui o ke Hawaii Pae

Aina ma Honolulu i keia la 9

o Julai 1858

Kaahumanu. Kamehameha

4405 Kaka Julai 26

Na Hoohikiia heia mea Kuleana a delo mai ka. Na ike mahia no au na Nipela i Kakau ko'u palapala manna o 1848.

Nalau Hoohikiia

Na ike au elua apana makeia mau ili ma Waihee

Afl. 42 Loi ma Waipukua

" 2. Loko " Kapoho

No Kekai mai ka apana mua i ka 1843. No Kaili mai i ka wa o K-I. Pela no ine Na loko ia wa no. Ade mea Kaaka, 5 Poalima maloko,

1 Mauka Ahuwai mai, Ma Kahakuloa, Kahuwa Makai Pa Aina, Ma Waituku Pu.

2 Mauka Konohiki, Ma Kahakuloa a Makai o Kekumoku, Ma Waituku Ili o Makaaka.

---

4405 Moo Julai 26.

Miwi Hoohikiia

Na ike au na Kekahio i Kakau imua o 1848. a na ike hoi e 4 apana makeia mau ili ma Waihee

Afl. 20 Loi ma Kula i Waihalulu

" 2. 20 Loi Kalo i Waipae 3

" 3. 8 Loi Kalo i Anuakoka

" 4. 4 Loi Kalo i Waipae 4

No Nalu mai ka apana 2 i ka 1839. No Makapuu mai ka apana 1 i ka 1846. No Kauhi mai ka apana 3, i ka 1843. no Anadaka mai ka Kauhi. No Kaalepo mai ka apana 4 imua o 1839, ade mea Kaaka, 5 Poalima ma ka apana 1, 2 Poalima ma ka apana 2,

1 Mauka Kahawai, Ma Kahakuloa Pali; Makai Puhi, Ma Waituku Kahawai

2 Mauka Kamalaala, Ma Kahakuloa Pa Aina Makai Kaalepo, Ma Waituku Kahawai

3 Mauka a Ma Kahakuloa a Makai o Kauhi,

No. 2. is bounded Mauka, by the Konohuki's land. Kahakuloa, by Kekumoku's land. Makai, by Kekumokus lot Waituku, by the ili of Makaaka.

Cl. 1405 Mar.

Mar. Sw. Kaki duly sent Mars claim to Eahu. His lands consists of 4 pieces in Waihee, Maui.

No. 1. is 2 lois and one kula in Waikabulu.
" 2. " " " " Waipae 3d
" 3. " 3 " in Ahuakoloa.
" 4. " 4 " " Waipae 4th

The Claimant recd No. 2. from Kalu in 1837. No. 1. from Makapu in 1846 and he from Gov. Kekuanaoa, and No. 3 from Kauhi in 1843, and he from Anakalu and he from Gov. Kekuanaoa, and No. 4. from Kaalepo before 1839. His title is not disputed. There are 5 pontina lois in No. 1 and two in No. 2.

No. 1 is bounded Mauka, by the Creek. Kahakuloa, by the Pali. Makai, by Pulu's land. Waituku, by the Creek.

No. 2. is bounded Mauka by Kamalaoala's land. Kahakuloa, by the Govt. lot. Makai, by Kaalepo's land. Waituku, by the Creek.

No. 3. is bounded Mauka, by Kauhi's land. Kahakuloa, by the same. Makai, by the same. Waituku, by Kaanua's land.

No. 4. is bounded Mauka, by Kamalaoala's land. On other three sides, by Kaalepo's land.

Cl. 1405 Kaulep.

The Clts wife, Kauhaai made oath that this Claim was duly entered.

Kaauwai Sw. The Clts land consists of 3 pieces in Waihee, Maui.

No. 1. is an ili called Waipae 2.
" 2. " 2 Mons of kalo in Waipae 4th
" 3. " 6 lois, kula, and House lot in the ili of Lonoahaulana.

Copied at Hawaii State Archives

Copied at Hawaii State Archives

No. 4405 M Palau July 26, 1849

Kawelohelii sworn He has seen Kekahio had written in early Feb. 1848. He has seen 2 taro section in Puhenolu ili of Waihee. Land from Kekanai in 1835. No objection. 3 Poalimas in there.

| | |
|---|---|
| Mauka | Big ditch |
| Kahakuloa | Kawelohelii's land |
| Makai | Land fence |
| Wailuku | Mahoe |

---

No. 4405 N Kaaukelehonua July 26, 1849

Claimant sworn and stated that he had seen Kahookola write (the claim).
Naluhia sworn He has seen 3 sections in the ilis of Waihee.

Section 1 - 30 patches at Waipukua

| | |
|---|---|
| Mauka | Land fence |
| Kahakuloa | Kamchieai |
| Makai | Huge ditch |
| Wailuku | Naiuielua |

Section 2 - Pond at Makaaka

| | |
|---|---|
| Mauka | Land fence |
| Kahakuloa | Wili |
| Makai | Poalima |
| Wailuku | Konohiki |

Section 3 - House lot at Makaaka
House lot obtained in 1841, no objection.
First section from Eleeleioho during the time of Kaahumanu I. Two sections at Makeaka from Keahi. 3 Poalimas in first section.

---

No. 4405 O Keaka July 26, 1849 Page 285

Keaka sworn "I have witnessed - Napela had written my deed before 1848. Nalau sworn He has seen two sections in these ilis of Waihee.

Section 1 - 42 patches at Waipukua

| | |
|---|---|
| Mauka | Konohiki |
| Kahakuloa and makai | Kekumoku |
| Wailuku | Makeaka ili |

First section from Keakai in 1843. Land and pond from Kaili at thetime of Kam I no objection, 5 poalimas in there.

---

No. 4405 P Moo July 26, 1849

Mioi sworn He has seen - Kekahio had written (claim ) before 1848. He has seen also 4 sections in the ilis of Waihee.

Section 1 - 20 patches and pasture at Waihalulu

| | |
|---|---|
| Mauka | Stream |
| Kahakuloa | Pali |
| Makai | Puhi |
| Wailuku | Stream |

Section 2 - 20 taro patches at Waipae 3

| | |
|---|---|
| Mauka | Kanealaala |
| Kahakuloa | Land fence |
| Makai | Kaalepo |
| Wailuku | Stream |

Section 3 - 8 Taro patches at Ahuakolea

| | |
|---|---|
| Mauka, Kahakuloa, makai | Keuhi |
| Wailuku | Kaanua |

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