

ORIGINAL



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

For Official Use Only:
RECEIVED
COMMISSION ON WATER RESOURCE MANAGEMENT
2009 APR 29 AM 11:24
Event ID:

FORM SWUPA-E (NA WAI EHA, MAUI)

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 Bryan Sarasin, SR.	Applicant's Contact	2. SOURCE LANDOWNER'S NAME Wailuku Water Company LLC	Source Landowner's Contact Avery Chumbley
Applicant's Mailing Address, or Principal Place of Business P.O. Box 218 Wailuku, HI 96793		Source Landowner's Mailing Address, or Principal Place of Business	
Applicant's Phone	Applicant's Fax	Applicant's E-mail	Source Landowner's Phone
			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: Waiehee/6022 Waiehu/6023 Iao/6024 Waikapu/6001

4. DIVERSION LOCATION: Choose the appropriate category and enter information in either 4a or 4b.

4a. TMK OF STREAM DIVERSION LOCATION: Zone: 3 - Sect: 2 - Plat: 014 - Parcel: 001

4b. TMK OF DITCH DIVERSION LOCATION: Zone: 3 - Sect: 2 - Plat: 007 - Parcel: 016

5. STREAM DIVERSION: How is water diverted from the stream to your property? Check all that apply.
 Pipe Pump Ditch/auwai Other Describe:
 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

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?

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): Larry Hashimoto
 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 Signature BRYAN SARASIN SR 4-29-09 Date	12. SOURCE LANDOWNER Signature Date
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FILE ID: JWUP.2294.6
 DOC ID: 3335

**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: (Check one) Stream Ditch Auwai
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	1,035,040	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
June 2007	1,035,040	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
July 2007	1,035,040	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
August 2007	1,035,040	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
September 2007	1,035,040	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
October 2007	1,035,040	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
November 2007	1,035,040	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
December 2007	1,035,040	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
January 2008	1,035,040	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
February 2008	1,035,040	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
March 2008	1,035,040	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
April 2008	1,035,040	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SUM OF AVERAGE DAILY USE FOR THE MONTH	31,482,466	GPD				
AVERAGE DAILY USE (Average of the above)	1,035,040	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						0		GPD	
Uses that do not require potable water									
AGRAQ	3 - 2 - 007 : 016 <small>Zone Sector Plat Parcel</small>	Ag	no	Ag	no	1,035,040	no	0.4	
AGRON	3 - 2 - 007 : 016 <small>Zone Sector Plat Parcel</small>	Ag	no	Ag	no	1000	no	0.4	
AGRCP	3 - 2 - 007 : 016 <small>Zone Sector Plat Parcel</small>	Ag	no	Ag	no	2700	no	0.009	
DOM	3 - 2 - 007 : 016 <small>Zone Sector Plat Parcel</small>	Ag	no	Ag	no	300	no	0.1	
TOTAL NON-POTABLE USE						1,035,040		GPD	
TOTAL USE REQUESTED (Sum of Total Potable Use and Total Non-Potable Use above) =						1,035,040		GPD	
If total use requested is not equal to the total monthly average in Table 1, please explain.									
In accordance with §174C-51(5), please explain if there are any limitations (legal, contractual, etc.) on the use(s) of water described above.									

**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 - 007 : 016 <small>Zone Sector Plat Parcel</small>	aquaculture	0.99	0.4	Year Round	Year Round	flood	field capacity
3 - 2 - 007 : 016 <small>Zone Sector Plat Parcel</small>	nursery	0.99	0.4	Year Round	Year Round	sprinkler	field capacity
3 - 2 - 007 : 016 <small>Zone Sector Plat Parcel</small>	wetland kalo	0.99	0.009	Year Round	Year Round	flood	field capacity
3 - 2 - 007 : 016 <small>Zone Sector Plat Parcel</small>	garden/diversified	0.99	0.1	Year Round	Year Round	sprinkler	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>							
- - - - - <small>Zone Sector Plat Parcel</small>							
- - - - - <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

	Potable Alternatives Attach additional sheets if necessary.	Non-Potable Alternatives Attach additional sheets if necessary.
Municipal sources	see attached	see attached
Wastewater reuse	n/a	see attached
Ditch system	n/a	see attached
Desalinization	n/a	see attached
Ground water	n/a	see attached
Other (specify)	n/a	see attached

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 attached

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 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/
- 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-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 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.*

Bryan Sarasin, Sr.
TMK# 3-2-007:016
Existing Water Use Permit Application

Addendum

The following addendum provides additional information supporting our application.

Summary:

Appended hereto as Exhibit A is a copy of the 7.5 minute-series USGS topographic map with Waihe`e stream and relevant stream diversions labeled. Exhibit B contains true and correct copies of photographs of the kuleana water flowing onto our property and our end uses. Exhibit C includes copies of Māhele documents establishing that our land was in kalo at the time of the Māhele of 1848. Exhibit D includes TMK maps showing the location of our property as well as a close-up of the property depicting our `auwai diversion and end uses.

Box 2: Source Landowner

Not applicable pursuant to HRS § 174C-51(1)(B), because we do 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, LLC claims to be the source landowner.

Supplemental Information for Box 5: Stream Diversion

We are kuleana users along the kuleana `auwai that runs to the South of Waihe`e River. 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 South Waihe`e kuleana `auwai receives water via a pipe in the Spreckels Ditch. The pipe empties into an open `auwai on the South side of Waihe`e River. The water continues makai in the ditch and pipes until it flows past the mauka boundary of our property where we divert water via 4 four-inch pipes. We have a 412 square-foot taro patch in which we grow taro for luau leaf and for our family to eat or share with friends. We also grow bananas and coconuts for personal consumption as well as to sell. We currently have about 400 coconut trees, 4000 ti leaf plants, and 400 palms. We also maintain four commercial aquaculture fishponds in which we raise catfish. Any excess water returns to the Waihe`e Valley South `Auwai makai of our property and goes on to serve other kuleana users. The precise amount returned to the ditch varies based on daily climate conditions. Unfortunately, the delivery of our kuleana water has been very unreliable, limiting our existing uses.

Supplemental Information for Box 6: Flow Measurement information

See explanation for Table 2 Box 10, below.

Bryan Sarasin, Sr.
TMK# 3-2-007:016
Existing Water Use Permit Application

Supplemental Information for Box 7:

My property has appurtenant rights, because it was in kalo cultivation at the time of the Māhele of 1848. Attached are true and correct copies of Māhele records, including Royal Patent No. 6347, Land Commission Award 4405-0, and testimony indicating the land was in kalo. Based on our knowledge of the history of this kuleana and our family, 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.

Table 1, additional information:

I gauged the water used for our aquaculture operation by methods shown on Exhibit B page 6. Total calculated water use per day for our aquaculture operation is 1,031,040 gallons per day (GPD). I estimated our existing water use for the nursery by multiplying the area in cultivation by 2,500, the amount of water I understand the Water Commission applied for commercial agricultural operations in the Waiāhole case. Based on that calculation, I estimated our existing water use for the nursery as approximately 1,000 gallons per day. I estimated our existing water use for wetland kalo cultivation by multiplying the amount of land in wetland kalo cultivation on April 30, 2008 (412 square feet or 0.009 acres) by 300,000 gallons, the average amount of water I understand is required to grow healthy wetland kalo. Based on that calculation, I estimated our existing water use for wetland kalo as approximately 2,700 gallons per day. I estimated our existing domestic water use, including the use of water outside our home for watering our non-commercial garden, by applying the 2002 State of Hawai'i Water System Standard for Maui County of 3000 gallons per acre by the total acreage of my garden (0.1 acres). Based on that calculation, I estimated our existing water use for the garden as approximately 300 gallons per day. Together, our aquaculture, nursery, wetland kalo, and non-commercial garden use approximately 1,035,040 gallons per day (GPD).

Table 2, additional information:

Our application seeks to use water on land zoned for agriculture. The cultivation of bananas, coconuts, taro, ti leaves, palm trees, and garden crops is consistent with state and county general plans and land use designations. Additionally, this use is consistent with county land use plans and general policies.

Table 2, Box 10:

See above under Table 1, additional information.

Bryan Sarasin, Sr.
TMK# 3-2-007:016
Existing Water Use Permit Application

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.

Ground water is the only available alternative and is one that, in fact, I have requested this Commission's permission to use. My application for a permit to pump the existing well on my property was contested and I have been granted a temporary ground water permit pending the resolution of the instream flow proceedings.

Municipal water is not a practicable alternative. Our domestic water service is a typical residential service and does not have the capacity to deliver the volumes of water we require. Even if the Maui County Department of Water Supply were willing to provide municipal water for aquaculture and kalo cultivation by installing a larger water meter, the cost of using municipal water for such purposes would be prohibitive.

Reusing wastewater is impracticable because we would still be required to pay for large volumes of flowing water. As a small agricultural user, we do not have the means to hookup to and use that water. The closest wastewater treatment plant is in Kahului.

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.

Finally, using an **alternative ditch system** is not practicable. We are currently using water from an existing ditch system, but water is not available consistently and in sufficient amounts to support the existing uses on our system, including our own uses. Additionally, getting water from other ditch systems is not practicable for two reasons. 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 explained above, we do not have a large scale farming operation. Thus, the cost of taking water from or constructing another ditch is not practicable.

Additional Information: Public Interest

1. Our existing use will maximize beneficial use and is in the public interest Our water use is consistent with the public interest because the majority of the water that we have requested is for a variety of agricultural crops and small-scale

Bryan Sarasin, Sr.
TMK# 3-2-007:016
Existing Water Use Permit Application

aquaculture. Haw. Rev. Stat. § 174C-2(c) declares that agriculture and the maintenance of proper ecological balance and scenic beauty are “in the public interest” (emphasis added). Our cultivation of local crops satisfies some of these objectives: our existing use is for agriculture; and we believe our diversified agriculture maintains ecological balance and scenic beauty. Thus, our existing use of ‘auwai water to grow crops is in the public interest.

Additionally, our existing use is reasonable and beneficial.

2. Our existing use is reasonable and beneficial

“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. Our existing use fulfills state policies in favor of reasonable-beneficial uses of water, diversified agriculture, and conservation of agricultural lands. Additionally, our water use is “necessary” to fulfill these purposes because we are currently only using the amount we need. We have taken steps to make our water use more efficient. For instance, we use pipes to transfer water to minimize water loss, our farming practices –including our use of mulch and compost – protect the soil from erosion and minimize our use of water. We also use gray water from our laundry on our crops. Therefore, the amount of water we have requested is necessary for economic and efficient utilization of water in a manner consistent with state and county land use plans and the public interest.

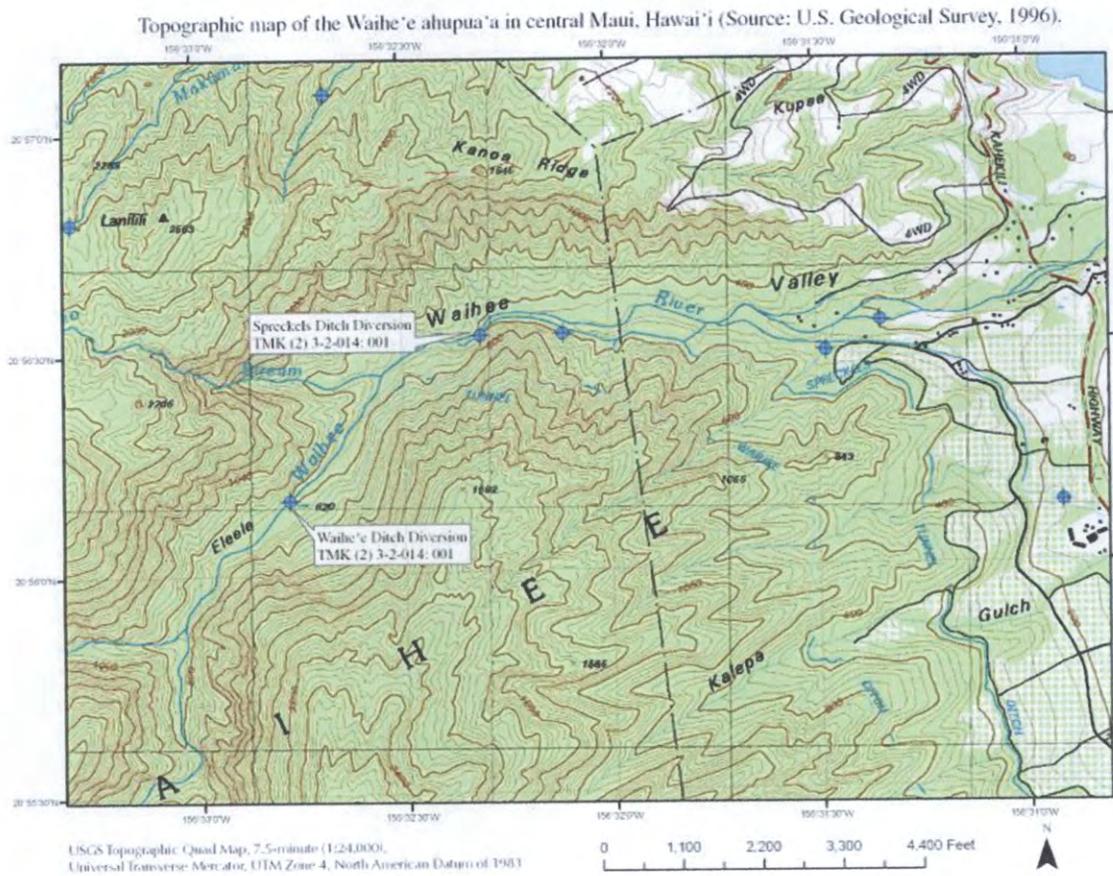
3. Our existing use is a protected public trust purpose

Our existing use is a public trust purpose because it is based on appurtenant rights. Waiāhole I, 94 Haw. at 137 n.34, 9 P.3d at 449 n.34. Because most of the water we use will be returned to Waihe‘e Valley South ‘auwai, our use supports other existing public trust purposes such as: (1) appurtenant rights; (2) water for domestic water uses; and (3) traditional and customary Native Hawaiian rights.

Exhibit A:

USGS Map of Waihe'e Diversion

This is a true and correct copy of a USGS Topographic Map showing Waihe'e River, with the Waihe'e Ditch Diversion and Spreckels Ditch Diversions labeled.



Bryan Sarasin, Sr.
TMK# 3-2-007:016
Existing Water Use Permit Application

Exhibit B: Photographs and Documents Index

pp 1

top photo-pond #2 and irrigation intakes
bottom photo-pond #2 fill

pp 2

top photo-pond #1 intake
bottom photo-pond #1 fill

pp 3

top photo-lo'i water in from auwai
bottom photo-lo'i water out to auwai

pp 4

top photo-ponds #3 and #4 intake in lo'i where pond #1 also discharges into
bottom photo-pond #3 fill

pp 5

top photo-pond #4 fill
bottom photo-discharge from ponds back into auwai

pp 6A

Method used to determine approximate pond fill rates

pp 6B

measurement and calculations of fill volumes

pp 7

How we determined water loss in our aquaculture usage

pp 8

top photo-varried nursery plants, showing primarily ti plants
bottom photo-more ti plants

pp 9

top photo-varried nursery showing primarily palms
bottom photo-nursery showing palms and cocunut palms

pp 10

top photo-coconut palms
bottom photo-coconut palms and ti plants

pp 11

top photo-irrigation sprinkler used for effecient watering for the nursery
bottom photo-compost heap which we use to cover our potted plants to keep in moisture to use water efficiently

pp 12

top and bottom photo's-cherry tomato's from the garden



Pond #2 and Irrigation intakes from
Auwai



Pond #2 Fill



Pond #1 Intake from Auwai



Pond #1 Fill



Lo'i Intake from Auwai



Lo'i Discharge back to Auwai



Ponds #3 and #4 Intake in Lo'i fed by Auwai
and Pond #1 discharge



Pond #3 Fill



Pond #4 Fill



Discharge from Ponds back into Auwai



TECHNICAL INFORMATION

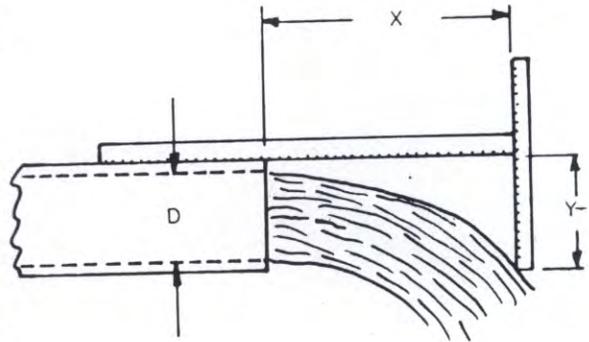
APPROXIMATING WATER FLOW

It is possible to approximate water flow from horizontal pipes when it is not practical to use flow meters or other measuring devices. This can be done by measuring to

the top of the flowing stream, always measuring the horizontal distance "X" in inches as illustrated, and determining the flow from the chart shown below.

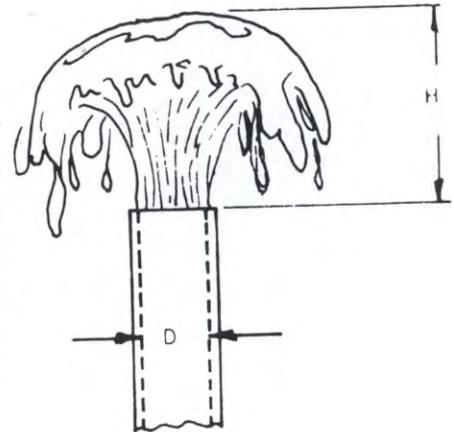
APPROXIMATE CAPACITY, GPM, FOR FULL FLOWING HORIZONTAL PIPES

Std. Wt. Steel Pipe, Inside Dia., In.		Distance x, in., when y = 12"										
Nominal	Actual	12	14	16	18	20	22	24	26	28	30	32
2	2.067	42	49	56	63	70	77	84	91	98	105	112
2½	2.469	60	70	80	90	100	110	120	130	140	150	160
3	3.068	93	108	123	139	154	169	185	200	216	231	246
4	4.026	159	186	212	239	266	292	318	345	372	398	425
5	5.047	250	292	334	376	417	459	501	543	585	627	668
6	6.065	362	422	482	542	602	662	722	782	842	902	962
8	7.981	627	732	837	942	1047	1150	1255	1360	1465	1570	1675
10	10.020	980	1145	1310	1475	1635	1800	1965	2130	2290	2455	2620
12	12.000	1415	1650	1890	2125	2360	2595	2830	3065	3300	3540	3775



APPROXIMATE CAPACITY, GPM, FOR FULL FLOWING VERTICAL PIPES

Nominal	Vertical Height, H, of Water Jet, in.										
I.D. Pipe, in.	3	3.5	4	4.5	5	5.5	6	7	8	10	12
2	38	41	44	47	50	53	56	61	65	74	82
3	81	89	96	103	109	114	120	132	141	160	177
4	137	151	163	174	185	195	205	222	240	269	299
6	318	349	378	405	430	455	480	520	560	635	700
8	567	623	684	730	776	821	868	945	1020	1150	1270
10	950	1055	1115	1200	1280	1350	1415	1530	1640	1840	2010



The accuracy of these methods will vary up to 10%. The pipe must be flowing full.

Bryan Sarasin, Sr.
TMK# 3-2-007:016
Existing Water Use Permit

How We Got Our Aquaculture Flow Estimates

Pond #1

4" pipe X = 15" = 208GPM = 146,160GPD

Pond #2

4" pipe X = 23" = 305GPM = 439,200GPD

Pond #3

Restricted to 2" pipe X = 29" = 101.5GPM = 146,160GPD

Pond #4

Restricted to 2" pipe X = 29" = 101.5GPM = 146,160GPD

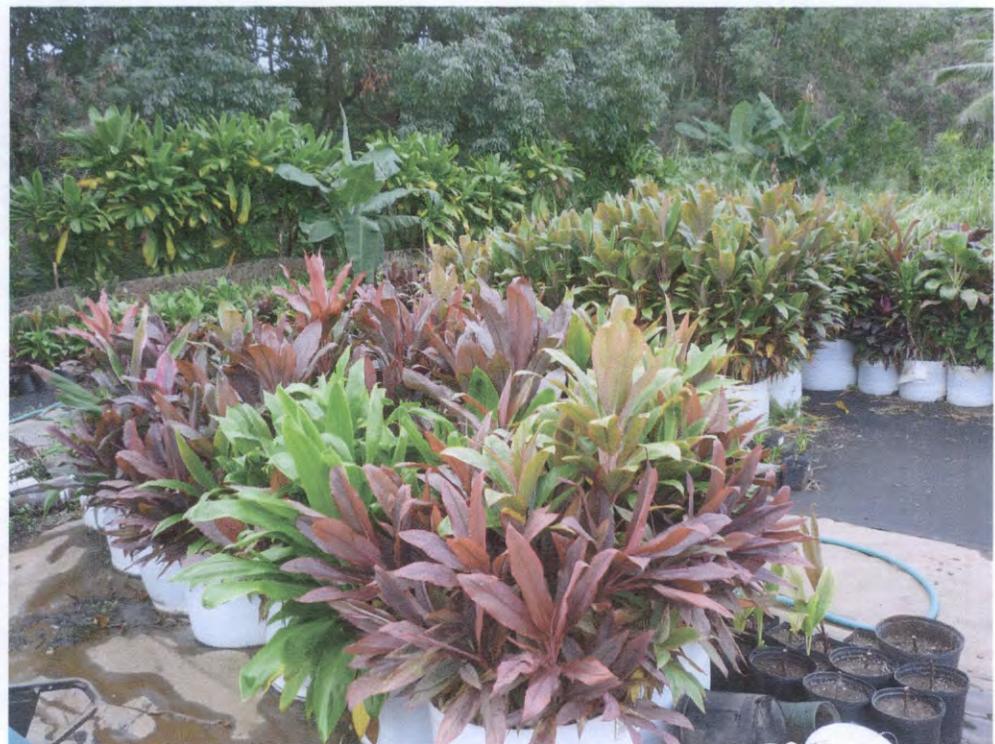
Bryan Sarasin, Sr.
TMK# 3-2-007:016
Existing Water Use Permit Application

Water Loss In Aquaculture Pond Use

We have estimated that we lose 5% of the total water used for our aquaculture operation. Using this number we estimate that the total water loss is 51,552 gallons per day (GPD).



Varried Nursery Plants Primarily Ti's



More Ti plants



Varried Nursery plants including Palms



Palms and Coconut Palms



Coconut Palms



Coconut Palms and Ti leaves



Irrigation Sprinkler for efficient Irrigation



Compost Pile



Cherry Tomato plants from the garden



Green and ripe Tomatoes

Bryan Sarasin, Sr.
TMK# 3-2-007:016
Existing Water Use Permit Application

Exhibit B: Photographs and Documents Index

pp 13
top and bottom photo's-banana's that we raise

pp 14
top photo-green onion and papaya from the garden
bottom photo-squash from the garden

pp 15
top photo-banana and coconut plants
bottom photo-taro lo'i

pp 16
diagram of water usage



Bunches of Bananas



Banana Plants



Green Onions and papaya from the garden



Squash vine from the garden

Bryan Sarasin, Sr.
TMK# 3-2-007:016
Existing Water Use Permit Application

Below is a photo of one of our end uses (banana and coconuts)

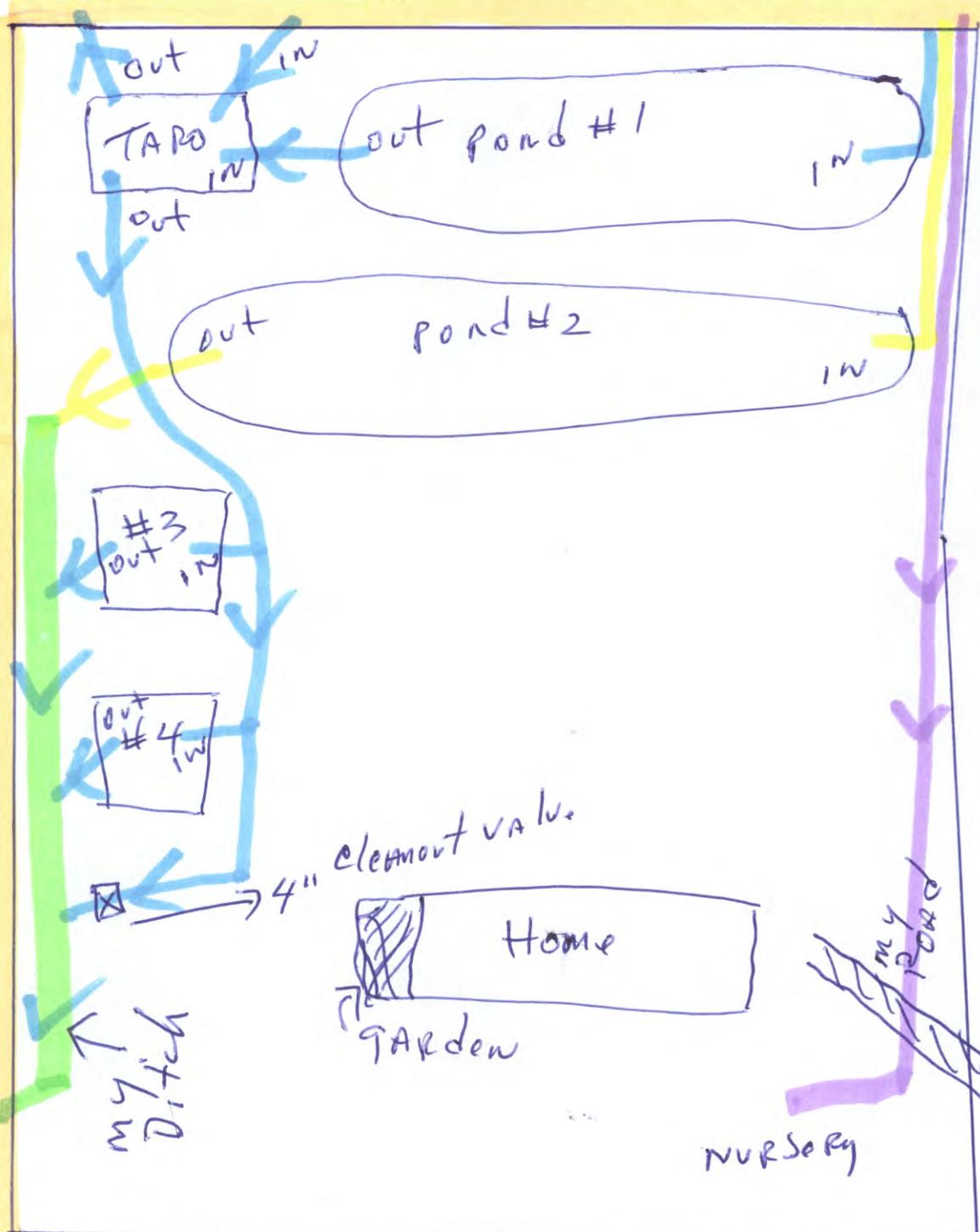


Below is a photo of one of our end uses (wetland kalo)



← Kuleawa Ditch

← Kuleawa Ditch



note! Not To SCALE
 Orange Kuleawa Ditch
 Blue 4" pipe to pond #1
 Yellow 4" pipe To Pond #2
 Green my Ditch
 Purple to nursery
 4" pipe
 Blue To pond #3 and
 pond #4 - 4" pipe

Kahe Kili Highway

Waikae ←
PP 16

Kaha Kaloa →

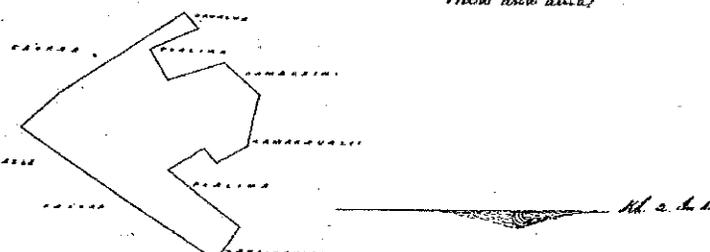
Exhibit C: Māhele Documents

These are true and correct copies of documents establishing that our property was in kalo at the time of the Māhele of 1848.

28 Keolu 3005 Koaunapuni Waihe'e, Hawaii

Mei Houlihi. Chumataka ke ana ma ke Pahi: Akou - Kookoa, Ak. 50 1/2, Hiki 55 Ak. ma ke Koaunapuni, Num. 27 1/2, Hiki 160 Ak. ma ke Keolu, Ak. 63 1/2, Hiki 177 Ak. ma ke Keolu, Ak. 22, Num. 160 Ak. ma ke Keolu, Ak. 11 1/2, Hiki 136 Ak. ma ke Keolu, Num. 50, Hiki 166 Ak. ma ke Keolu, Num. 38 1/2, Hiki 103 Ak. ma ke Keolu, Num. 58 1/2, Num. 52, Ak. ma ke Keolu, Num. 54, Hiki 124 Ak. ma ke Keolu, Num. 51, Hiki 252 Ak. ma ke Keolu, Num. 57 1/2, Hiki 118 Ak. ma ke Keolu, Num. 57, Num. 668 Ak. ma ke Keolu, Ak. 123 1/2, Num. 151 Ak. ma ke Keolu, Ak. 36, Num. 609 Ak. ma ke Keolu, a hiki ma hiki: hoomaka a waleke via anapuni, 27 1/2 Eka.

Waihe'e, July 2, 1852. John S. Snow,
Ma'ua ana aia.



Waihe'e, July 2, 1852.

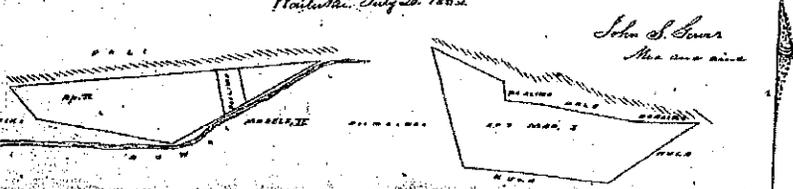
Keolu 3507 Koaunapuni Waihe'e, Hawaii

Apana I. Me. Waihe'e Chumataka ke ana ma ke Pahi: Akou - Kookoa, Num. 78, Hiki 399 Ak. ma Keolu, Ak. 57 1/2, Hiki 303 Ak. ma Keolu, Ak. 84, Num. 160 Ak. ma ke Keolu, Ak. 15 1/2, Num. 231 Ak. ma Keolu, Ak. 17 1/2, Num. 112 Ak. ma Keolu, Ak. 26 1/2, Num. 49 Ak. ma Keolu, Ak. 57 1/2, Num. 223 Ak. ma Keolu, Num. 8 1/2, Hiki 362 Ak. ma Keolu, a hiki ma hiki: hoomaka a waleke via ana puni 1 1/2 Eka.

Apana II. Me. Waihe'e Chumataka ke ana ma ke Pahi: Akou - Kookoa, Num. 78, Hiki 415 Ak. ma Keolu, Hiki 383 Ak. ma Keolu, Ak. 84, Hiki 165 Ak. ma Keolu, Ak. 22, Num. 121 Ak. ma Keolu, Num. 75 1/2, Num. 5, 70 Ak. ma Keolu, a hiki ma hiki: hoomaka a waleke via anapuni, 53 1/2 Eka.

Apana III. Me. Waihe'e Chumataka ke ana ma ke Pahi: Akou - Kookoa, Hiki 225 Ak. ma Keolu, Num. 75 1/2, Num. 215 Ak. ma Keolu, Num. 24 1/2, Hiki 95 Ak. ma Keolu, a hiki ma hiki: hoomaka a waleke via anapuni, 26 1/2 Eka.

Waihe'e, July 2, 1852. John S. Snow,
Ma'ua ana aia.



Bryan Sarasin, Sr.
 TMK# 3-2-007:016
 Existing Water Use Permit Application

HELU 6440.



PALAPALA SILA NUI

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

NO KA MEA, Ua hooaloa na Luna Hoona i na kumu kuleana aia i ka olelo, he kuleana aia ko
 ma ke *Honua o Hawaii* Ano Alodio iloko o ka bi i oleloia malalo. *Smallie* Kuleana Hele 4005

Nolaila, ua keia Palapala Sila Nui, ke hoike aku nei a *Smallie* ke Alii Nui a ke Akua i
 Kona lokomaikai i heonoio ai maluna o ka Hawaii Pac Aina, i na kanaka a pau, i keia la tona lilo, a no
 Kona mau hope alii, ua hooaloa nei oia, ma ke **Ano Alodio** ia *Honua o Hawaii*
 i keia wahi a pau loa ma *Hawaii* *Maui* penoi ma mokama:
 ma ka Mokupuni o *Maui*

Ed Hoornata Ke auw oia ke Piki Ok. o Hoornata

<i>Ok. 50%</i>	<i>Ok. 55</i>	<i>Paul</i>	<i>Maui</i>	<i>Honua o Hawaii</i>
<i>Ok. 2%</i>	<i>1.90</i>			<i>Hoornata</i>
<i>Ok. 63%</i>	<i>1.97</i>			
<i>22%</i>	<i>1.64</i>			
<i>44%</i>	<i>1.34</i>			<i>Honua o Hawaii</i>
<i>Ok. 80%</i>	<i>1.46</i>			
<i>38%</i>	<i>1.03</i>			
<i>48%</i>	<i>1.52</i>			
<i>34%</i>	<i>1.21</i>			
<i>Ok. 4%</i>	<i>2.52</i>			<i>Honua o Hawaii</i>
<i>Ok. 5%</i>	<i>1.18</i>			
<i>3%</i>	<i>0.68</i>			<i>Honua o Hawaii</i>
<i>Ok. 42%</i>	<i>1.57</i>			
<i>8%</i>	<i>2.09</i>			

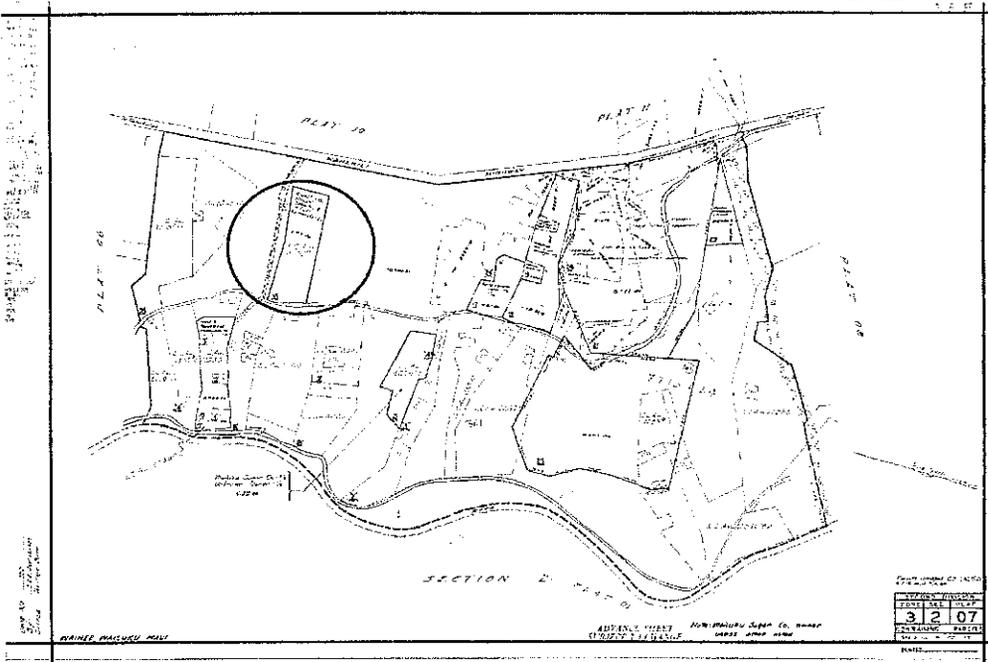
o hiki i ka bi i Hoornata. 2% Hoornata

[Faint, mostly illegible text at the bottom of the page, possibly containing signatures or official stamps.]

<p style="text-align: center;"><i>Waikae</i></p> <p style="text-align: center;">C. 4005. <i>Maunaloa</i></p> <p><i>Maunaloa</i> is the title land consists of one large piece of land, water, and house sit in the sit of <i>Maunaloa</i>, <i>Maunaloa</i> land.</p> <p>The Claimant received it from <i>Maunaloa</i> in 1820 and his title has never been disputed. There are no parties to it.</p> <p>It is bounded <i>Maunaloa</i> by the sit of <i>Maunaloa</i>, <i>Maunaloa</i> by the sit of <i>Maunaloa</i>, <i>Maunaloa</i> by the sit of <i>Maunaloa</i>, <i>Maunaloa</i> by the sit of <i>Maunaloa</i>.</p>
<p style="text-align: center;">C. 4277. <i>Maunaloa</i></p> <p><i>Maunaloa</i> is the title land consists of two pieces in <i>Maunaloa</i>, <i>Maunaloa</i>.</p> <p>N^o 1 is a section of 29 lots in <i>Maunaloa</i>.</p> <p>N^o 2 is a section of 29 lots in <i>Maunaloa</i>.</p> <p>N^o 3 is a section of 29 lots in <i>Maunaloa</i>.</p> <p>The Claimant received it from <i>Maunaloa</i> in 1820 and 1822 from <i>Maunaloa</i> at the same time, and it is from one in the same year or near there. His title has never been disputed. There is no parties to it.</p> <p>N^o 1 is bounded <i>Maunaloa</i> by the sit of <i>Maunaloa</i>, <i>Maunaloa</i> by the sit of <i>Maunaloa</i>, <i>Maunaloa</i> by the sit of <i>Maunaloa</i>, <i>Maunaloa</i> by the sit of <i>Maunaloa</i>.</p> <p>N^o 2 is bounded <i>Maunaloa</i> by my land <i>Maunaloa</i> by the sit of <i>Maunaloa</i>, <i>Maunaloa</i> by <i>Maunaloa</i> land <i>Maunaloa</i>, by the sit of <i>Maunaloa</i>.</p> <p>N^o 3 is bounded <i>Maunaloa</i>, and all sides, by my land.</p>
<p style="text-align: center;">C. 5355. <i>Maunaloa</i></p> <p><i>Maunaloa</i> is the title land in <i>Maunaloa</i>, <i>Maunaloa</i> consist of one piece of land, in the sit of <i>Maunaloa</i>.</p> <p>He received it from his parents who had it in ancient days. His title was never disputed.</p> <p>It is bounded <i>Maunaloa</i> by the road and <i>Maunaloa</i> land, <i>Maunaloa</i> by the sit of <i>Maunaloa</i>, <i>Maunaloa</i> by the sit of <i>Maunaloa</i>, <i>Maunaloa</i> by the road leading from the <i>Maunaloa</i> to the sea.</p>

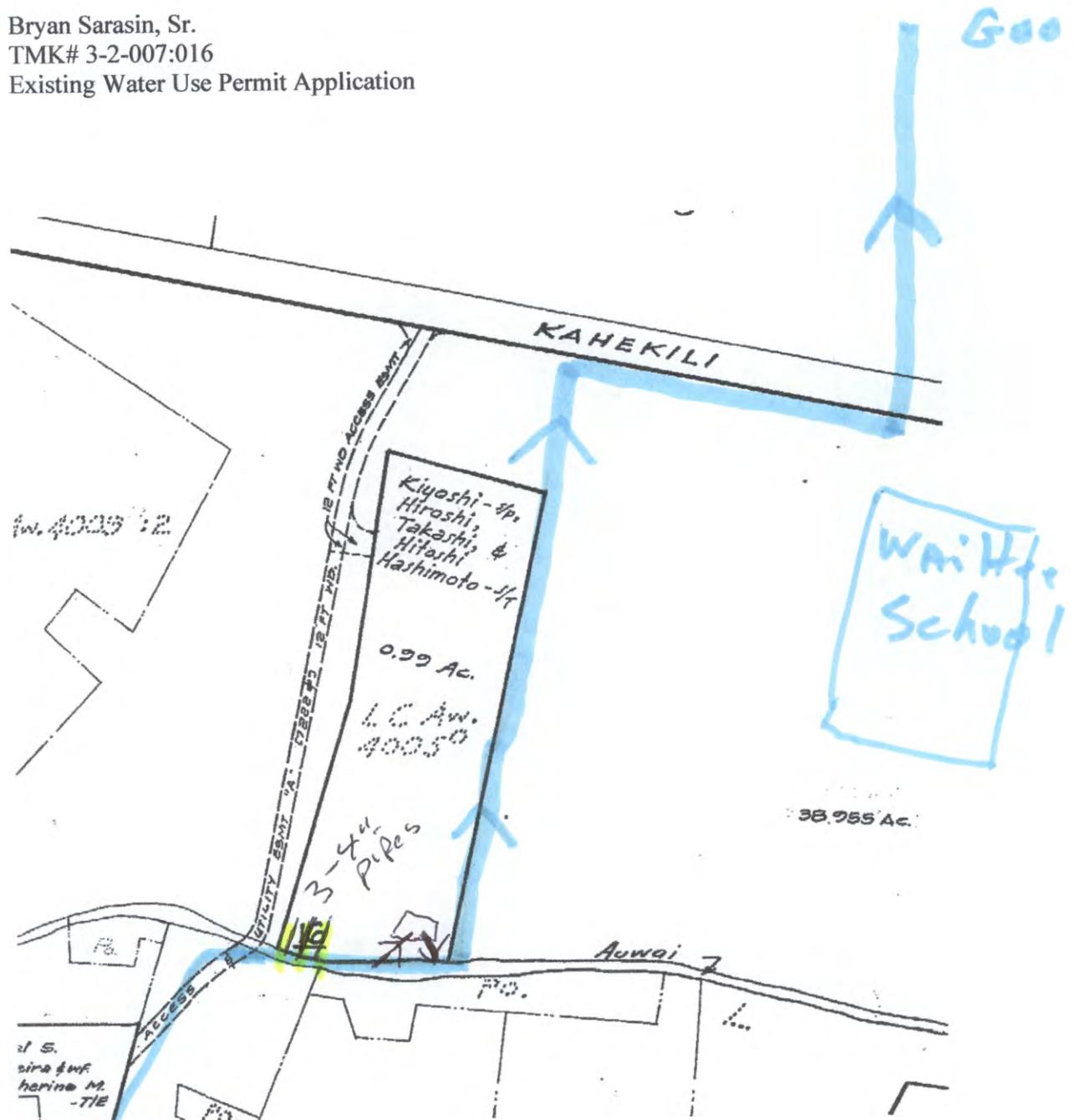
Bryan Sarasin, Sr.
TMK# 3-2-007:016
Existing Water Use Permit Application

Exhibit D: TMK Maps



This is a true and correct copy of TMK # 3-2-007,
with our parcel (016) noted by the circle.

Bryan Sarasin, Sr.
TMK# 3-2-007:016
Existing Water Use Permit Application



This is a zoomed-in copy of TMK No. 3-2-007: 016. It shows water inflow and outflow from the various `auwai, as well as the location of our end uses. The end uses and `auwai locations and size are approximate, and not to scale.