

DAVID Y. IGE
GOVERNOR
STATE OF HAWAII



WILLIAM J. AILA, JR.
CHAIRMAN
HAWAIIAN HOMES COMMISSION

JOSH GREEN
LT GOVERNOR
STATE OF HAWAII

TYLER I. GOMES
DEPUTY TO THE CHAIRMAN

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS

P O BOX 1879
HONOLULU, HAWAII 96805

March 26, 2021

ref.:PO-21-083

Ms. Suzanne Case, Chairperson
Mr. M. Kaleo Manuel, Deputy Director
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

Subject: ADDENDUM TO Ground Water Use Permit Application - New
(GWUPA-New) for Kauluwai wells 1 & 2, Kualapu`u Molokai

Dear Ms. Case and Mr. Manuel,

On October 12, 2020, the Department of Hawaiian Home Lands (DHHL) submitted a GWUPA-New, for Kauluwai wells 1 & 2, Kualapu`u Molokai, seeking to increase our permitted pumping from .367 mgd to .595 mgd, for both Public Trust and non-Public Trust, reasonable beneficial uses on Molokai.

Prior to our submission, your staff's reviewed a draft form of this application and state their commitment that it would be accepted as complete. However, on December 18, 2020, DHHL was emailed with additional questions regarding our application. We below respond to those requests for additional information.

CWRM Question 1: The well sources TMK should be (2) 5-2-010:003 rather than that listed in GWUPA as (2) 5-2-010:007. Please confirm.

DHHL Response: Yes, the TMK should end in 003 rather than 007

CWRM Question 2: Would it be fair to say all TMKs serviced by PWS 230 fall within TMK: 5-2-various.

DHHL Response: Yes.

CWRM Question 3: Table DHHL-3 lists Maui county service as 21,000 gpd but under proposed modified request on pg. 6 item 3. lists it as 22,000 gpd, which would bring total request to 0.596 mgd. 21,000 is the correct value or is 22,000 gpd, which would change the total to 0.596 mgd?

DHHL Response: The correct value is 21,000 gpd, and our total request is 0.595 mgd.

CWRM Question 4: Please verify that the 61 commercial connections in Table DHHL-3 are the uses referred to under proposed modified request item 5. on pg. 6.

DHHL Response: Yes, they refer to the same connections.

Ms. Suzanne Case, Chairperson, CWRM
 Mr. M. Kaleo Manuel, Deputy Director, CWRM
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CWRM Question 5: How does the #1 alternate way of characterizing the request for 210 sub-dividable up to 544 sub-dividable lots compare with the 40 requested in Table DHHL-3 of 40 sub-dividable lots up to 544 sub-dividable lots.

DHHL Response: The 40 requested meters in in Table DHHL-3 for 40 sub-dividable lots means that based on that Table, we would not have the capacity to add additional meters for the remaining 504 sub-dividable lots. DHHL believes that 40 additional meters would address some immediate needs, and ongoing efficiency measures, described in our application, could free up supply for some portion of the remaining subdividable lots.

CWRM Question 6: Please clarify on pg.9 why is existing homestead agricultural needs are non-potable but remaining needs are potable? Does this mean future agricultural needs require potable and is there an estimate?

DHHL Response: The statement on page 9, responding to the application requirement that potable and non-potable needs are identified, acknowledges that existing irrigation for existing Homestead service agricultural connections and the five commercial agricultural service connections uses potable water, and the only source currently available to them is our potable system, but the uses do not per se require potable water. Future agricultural homesteading will require water, both potable (for the residential components of agricultural homesteads and any agricultural processing requiring potable water), and non-potable. We are not requesting additional uses in this application for agricultural use of potable water. Future needs beyond what is being requested here are generally outside the scope of this application.

CWRM Question 7: Below is the tally as we can glean from the application - any corrections?

Use Summary
 Quality of Water Requested
 Fresh Brackish Salt Potable Non-Potable
 Proposed Use
 Agriculture Municipal Individual Domestic Irrigation Industrial Military Other Use

Requested Amount (GPD) 595,000 Requested Amount (Mgd) 0.595 CWRM Permitted Permit (Mgd)

Description	Units	State Land Use Districts	Zoning	New/Existing	Units or Acre Age	Daily GPD/Acre or GPD/Acre	Quantity of Use (GPD)
emergency provision to provide water to MDWS & Molokai Ranch	(5) 0-0-000.000		various	Existing	1.0	0	0
Mauui County Service	(5) 0-0-000.000		various	Existing	1.0	21,000	21,000
5 private commercial agricultural meters	(5) 2-0-000.000		various	Existing	2,536.0	5	12,400
26 homestead agricultural connections	(5) 2-0-000.000		EXEMPT	Existing	315.5	127	40,000
40 sub-dividable homestead lots	(5) 2-0-000.000		EXEMPT	New	40.0	600	24,000
536 existing homestead residential units	(5) 2-0-000.000		EXEMPT	Existing	539.0	462	249,000
61 commercial connections for 8 existing non-homestead uses	(5) 2-0-000.000		various	Existing	61.0	2,393	146,000
171 new homestead lots	(5) 2-0-000.000		EXEMPT	New	171.0	600	102,600
Total Units:					3,664.5	Total GPD:	595,000

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Mr. M. Kaleo Manuel, Deputy Director, CWRM
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DHHL Response: The 61 commercial connections are for a variety of non-homestead uses. The limitation or specification of eight non-homestead uses should be removed.

With these responses to the staff's additional questions, we again ask that this application be accepted as complete and noticed as soon as possible.

We also here repeat our request that rather than consider this application in conjunction with others, which may subject our beneficiaries to further delay, you consider this application before considering any other additional uses in the aquifer.

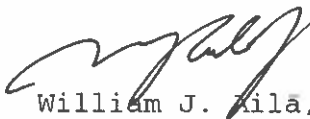
DHHL believes there are no other current, accepted, valid applications for water from the Kualapu'u Aquifer System Area at this time. A previously accepted application from Molokai Ranch has become outdated as it assumed use in conjunction with the Molokai Irrigation System, which the Ranch has now disconnected its system from. That application should simply be dismissed as incomplete by letter due to changed circumstances of the applicant's own doing.

Your records will show that DHHL objected to the acceptance of this application as complete, including due to a complete absence of any examination of the possible impact of the proposed pumping on traditional and customary rights along the coast of Molokai. It is troubling that the CWRM staff is willing to accept applications of complete with such obvious omissions, and yet has not done so for the very minor issues they belatedly identified with our application.

The continued deference of the staff to the ranches outdated applications, especially when seen in light of their continued pumping of approximately 500,000 gallons per day of water from this aquifer without any valid permit and without any enforcement, is deeply concerning to this Department.

We thank you for your consideration of these requests.

Mahalo,

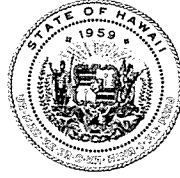


William J. Kilā, Jr., Chairman
Hawaiian Homes Commission

C. Hawaiian Homes Commission

DAVID Y. IGE
GOVERNOR
STATE OF HAWAII

JOSH GREEN
LT. GOVERNOR
STATE OF HAWAII



WILLIAM J. AILA, JR.
CHAIRMAN
HAWAIIAN HOMES COMMISSION

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DEPUTY DIRECTOR
HAWAIIAN HOMES COMMISSION

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS

P. O. BOX 1879
HONOLULU, HAWAII 96805

October 12, 2020

Ms. Suzanne Case, Chairperson
Mr. M. Kaleo Manuel, Deputy Director
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

Subject: Ground Water Use Permit Application – New (GWUPA-New) for
Kauluwai Wells 1 & 2, Kualapu`u, Moloka`i

Dear Ms. Case and Mr. Manuel,

The Department of Hawaiian Home Lands (DHHL) here submits a GWUPA-New, for Kauluwai wells 1 & 2, Kualapu`u Molokai, seeking to increase our permitted pumping from .367 mgd to .595 mgd, for both Public Trust and non-Public Trust, reasonable beneficial uses on Molokai. Our application is comprised of this letter, the application form, four attachments and four exhibits. If granted, expressed as a percentage of Sustainable Yield (SY), DHHL is seeking to increase its current allowed rate of using 7.34% by 4.56% to 11.9% of the SY in Kualapu`u.

As you know, beneficiaries have been waiting nearly three decades for DHHL to be able to provide additional homesteading opportunities on the island. Our requests to increase our pumping, even as Molokai Ranch has been permitted to continue to pump without a permit, have to this date been unsuccessful. The challenges to our securing an increased allocation have been many, beyond even the Molokai Ranch's previous request for a contested case against us, later withdrawn. This has directly and negatively affected our ability to increase homesteading on the island.

Because our agencies share a commitment to protecting the water resources of Molokai and their Public Trust uses, we would like to highlight that for over two decades, DHHL has taken the following actions to better understand these resources:

- DHHL & the United States Geological Survey (USGS) funded the Molokai water budget study to establish baseline information on the Kualapu`u and surrounding Aquifers

- DHHL & USGS funded the original Kualapu`u Aquifer computer model to estimate the hydrologic impacts of groundwater withdrawals under different pumping level and location scenarios
- DHHL, USGS and Maui County funded construction of the Kualapu'u Monitoring Well to provide information on water levels and salinity variations with depth in the aquifer
- County of Maui, DHHL, the Office of Hawaiian Affairs, and USGS funded a more complex three-year \$900,000 study to provide updated groundwater recharge estimates and quantify hydrologic impacts of groundwater. This study has now been published and is available to CWRM to inform allocation decisions.

Please also note that Molokai Ranch and CWRM were invited to provide funding for these studies, but declined.

We have appreciated your staff's recent willingness to review a draft form of this application and their commitment that it would be accepted as complete. We ask that this application be accepted as complete and noticed as soon as possible. We also seek that rather than consider this application in conjunction with others, which may subject our beneficiaries to further delay, you consider this application before considering any other additional uses in the aquifer.

We thank you for your consideration of these requests.

C. Hawaiian Homes Commission



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

For Official Use Only:

**APPLICATION FOR GROUND WATER USE PERMIT FOR
 PROPOSED NEW USE IN A DESIGNATED GROUND WATER
 MANAGEMENT AREA**

FORM GWUPA-N Application for New Use
 Application to Modify WUP No. 267

For detailed instructions on filling out this application form completely, refer to the attached instructions. Incomplete applications will not be accepted for processing.

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) with source location labeled and include the name of the quad map.
- Property tax map, showing source location referenced to established property boundaries.
- Photograph(s) of the source(s) and location(s) of proposed end use(s), if applicable. **SEE ATTACHMENT A**

APPLICANT INFORMATION					
Note 1: In accordance with HRS § 174C-51(1), the landowner shall be the joint applicant in the event the applicant is a lessee, licensee, developer or any person with a terminable interest or estate in the land that is the water source of the permitted water.					
1. APPLICANT'S INFORMATION			2. SOURCE LANDOWNER'S INFORMATION		
Name/Company William J. Ailā, Jr. Chairman Department of Hawaiian Home Lands		Contact Person Andrew Choy, Acting Planning Program Manager	Name/Company Same		Contact Person Same
Mailing Address P.O. Box 1879 Honolulu, Hawai'i 96805			Mailing Address Same		
Phone (808) 620-9500	Fax (808) 620-9559	E-mail andrew.h.choy@hawaii.gov	Phone Same	Fax Same	E-mail Same
SOURCE INFORMATION					
3. ISLAND Molokai					
4. GROUND WATER MANAGEMENT AREA Kualapu'u			4A. SUSTAINABLE YIELD FOR ITEM 4 5* MGD (SEE ATTACHMENT B)		
5. SOURCE INFORMATION Attach additional sheets, if necessary.					
Well Number (if known)	Well Name	Existing or Proposed?	TMK		Flowmeter installed?
4-0801-001	Kauluwai 1	Existing	5	2 - 10 : 07	<input checked="" type="checkbox"/> Yes, date installed 10 / 12 / 1995 <input type="checkbox"/> No
4-0801-002	Kauluwai 2	Existing	5	2 - 10 : 07	<input checked="" type="checkbox"/> Yes, date installed 10 / 12 / 1995 <input type="checkbox"/> No
			zone	sector - plat : parcel	<input type="checkbox"/> Yes, date installed ___ / ___ / ___ <input type="checkbox"/> No
			zone	sector - plat : parcel	<input type="checkbox"/> Yes, date installed ___ / ___ / ___ <input type="checkbox"/> No
			zone	sector - plat : parcel	<input type="checkbox"/> Yes, date installed ___ / ___ / ___ <input type="checkbox"/> No
			zone	sector - plat : parcel	<input type="checkbox"/> Yes, date installed ___ / ___ / ___ <input type="checkbox"/> No
			zone	sector - plat : parcel	<input type="checkbox"/> Yes, date installed ___ / ___ / ___ <input type="checkbox"/> No
			zone	sector - plat : parcel	<input type="checkbox"/> Yes, date installed ___ / ___ / ___ <input type="checkbox"/> No
PROPOSED USE INFORMATION §§174C-51(4), (5), (6), HRS					
6. TOTAL QUANTITY OF WATER REQUESTED: In the space below, enter total from Box M in Item 11 (Table 1) of this application. 595,000 gallons per day, averaged over 1 year (SEE ATTACHMENT B)					
7. PROPOSED USE(S): <input checked="" type="checkbox"/> Agriculture <input checked="" type="checkbox"/> Domestic <input checked="" type="checkbox"/> Industrial (SEE ATTACHMENT B) Check all that apply. <input checked="" type="checkbox"/> Irrigation <input type="checkbox"/> Military <input checked="" type="checkbox"/> Municipal					
8. LOCATION OF PROPOSED WATER USE(S): Show the location of the proposed use on the same USGS and TMK maps as the proposed source location. Otherwise, attach similar maps. See Item 11 (Table 1, column B) of this application. (SEE ATTACHMENT A)					
Note 2: 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. Further, 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 is subject to any existing legal uses, changes in sustainable yields and instream flow standards, reserved uses as defined by the Commission, and Hawaiian Home Lands' future uses; and (3) <i>the applicant is responsible for paying the public notice fees associated with this application.</i> Additionally, as stated in Note 1, above, HRS § 174C-51(1) the landowner shall be the joint applicant in the event the applicant is a lessee, licensee, developer or any person with a terminable interest or estate in the land that is the water source of the permitted water.					
9. APPLICANT			10. SOURCE LANDOWNER/JOINT APPLICANT (if applicable)		
 Signature William J. Ailā Jr. Print Name 10/12/20 Date			 Signature William J. Ailā Jr. Print Name 10/12/20 Date		

PROPOSED NEW USE OR MODIFIED USE INFORMATION

11. TABLE 1: LAND USE CONSISTENCY / EFFICIENCY OF USE (Attach additional copies, if necessary.) (SEE ATTACHMENT B)

LAND USE CONSISTENCY		EFFICIENCY OF USE									
A	B	C	D	E	F	G	H	I	J	K	
PURPOSE / WATER USE CATEGORY (See the instructions for water use category descriptions.)	TMK FOR PROPOSED LOCATION OF USE ATTACH THE FOLLOWING: • Property tax map, showing proposed location of use and write in the date and write in the date and write in the date and write in the date • Photograph of the area of proposed use	STATE LAND USE DISTRICT	CDUP REQUIRED? Check the appropriate box, and write in the date approved, if applicable.	COUNTY ZONING CODE	SMAP REQUIRED? Check the appropriate box, and write in the date approved, if applicable.	UNITS OR NET ACREAGE	GPD/ACRE	QUANTITY OF USE (GPD)	JUSTIFICATION FOR QUANTITY OF WATER REQUESTED (If applicable, attach additional sheets showing how the quantity was calculated.) For irrigation uses, fill in Table 2.	TOTAL POTABLE USE	
USES THAT REQUIRE POTABLE (DRINKING) WATER										L	M
	zone - - - - - sector - - - - - plat - - - - - parcel - - - - -		<input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired / / <input type="checkbox"/> No		<input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired / / <input type="checkbox"/> No						GPD
	zone - - - - - sector - - - - - plat - - - - - parcel - - - - -		<input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired / / <input type="checkbox"/> No		<input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired / / <input type="checkbox"/> No						GPD
	zone - - - - - sector - - - - - plat - - - - - parcel - - - - -		<input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired / / <input type="checkbox"/> No		<input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired / / <input type="checkbox"/> No						GPD
	zone - - - - - sector - - - - - plat - - - - - parcel - - - - -		<input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired / / <input type="checkbox"/> No		<input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired / / <input type="checkbox"/> No						GPD
USES THAT DO NOT REQUIRE POTABLE WATER										L	M
	zone - - - - - sector - - - - - plat - - - - - parcel - - - - -		<input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired / / <input type="checkbox"/> No		<input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired / / <input type="checkbox"/> No						GPD
	zone - - - - - sector - - - - - plat - - - - - parcel - - - - -		<input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired / / <input type="checkbox"/> No		<input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired / / <input type="checkbox"/> No						GPD
	zone - - - - - sector - - - - - plat - - - - - parcel - - - - -		<input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired / / <input type="checkbox"/> No		<input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired / / <input type="checkbox"/> No						GPD
	zone - - - - - sector - - - - - plat - - - - - parcel - - - - -		<input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired / / <input type="checkbox"/> No		<input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired / / <input type="checkbox"/> No						GPD
TOTAL QUANTITY OF WATER REQUESTED (sum of total potable use and total non-potable use) =										L	M

Please explain if there are any limitations (e.g., legal, contractual) on the proposed water use(s) described in Table 1. Ref. HRS § 174C-51(5).

PROPOSED NEW USE OR MODIFIED USE INFORMATION (continued)									
12. TABLE 2: IRRIGATION INFORMATION (SEE ATTACHMENT B) List all crops that will be grown, including landscape and golf course irrigation uses. Copy Table 2 and attach additional sheets to complete your list, if necessary.									
A TMK FOR PROPOSED LOCATION OF USE ATTACH THE FOLLOWING: • Property tax map with an outline around the area of each proposed irrigation use listed in this table. • Photograph of the area of each proposed use.	B CROP	C TOTAL ACREAGE	D NET IRRIGATED ACREAGE	E BEGIN GROWTH PERIOD (month)	F END GROWTH PERIOD (month)	G IRRIGATION SYSTEM (refer to instructions)	H IRRIGATION PRACTICE (refer to instructions)	I COMMENTS (Continue comments below, if more space is needed.)	
zone - sector - plat - parcel									
zone - sector - plat - parcel									
zone - sector - plat - parcel									
zone - sector - plat - parcel									
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zone - sector - plat - parcel									
zone - sector - plat - parcel									

Comments (continued from Column I). Please clearly indicate the crop (i.e., the row in table) these comments relate to.

OTHER PERTINENT INFORMATION

13. TABLE 3: ALTERNATIVES ANALYSIS (SEE ATTACHMENT B)

	A. Analysis of <i>potable</i> alternatives Attach additional sheets if necessary.	B. Analysis of <i>non-potable</i> alternatives Attach additional sheets if necessary.
Municipal sources		
Wastewater reuse		
Ditch system		
Desalinization		
Surface water		
Conservation Measures		
Other (specify)		

14. PUBLIC INTEREST

§174C-2(C), HRS states: *The state water code shall be liberally interpreted to [a] 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, [b] 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 how the proposed new use(s) in your application are consistent with items [a] and [b] above.

(SEE ATTACHMENTS B AND C)

15. INTERFERENCE WITH THE RIGHTS OF THE DEPARTMENT OF HAWAIIAN HOME LANDS

Explain how the proposed new use(s) of water will not interfere with the rights of the Department of Hawaiian Home Lands, as provided in section 221 of the Hawaiian Homes Commission Act.

(SEE ATTACHMENT B)

16. INTERFERENCE WITH ANY EXISTING LEGAL USES

Explain how the proposed new use(s) of water will not interfere with any other existing legal use(s) of water.

(SEE ATTACHMENTS B AND C)

17. PUBLIC WATER SYSTEM INFORMATION

Check the appropriate box or boxes. **Sources serve PWS 230, a DHHL owned, non-PUC-Regulated System**

- PUC-Regulated Private System / Non-PUC-Regulated Private System / Not a Public Water System
 Intended dedication to Honolulu Board of Water Supply or to County of Maui, Department of Water Supply.

18. CHAPTER 343

- An Environmental Assessment was completed, and
 An Environmental Impact Statement was required and has been accepted (attach letter of acceptance). Publication date in The Environmental Notice:
 A Finding of No Significant Impact has been determined (attach letter). Publication date in The Environmental Notice: June 8, 2016 **(SEE ATTACHMENT D)**

This project proposes:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Use of state or county lands, or use of state or county funds | <input type="checkbox"/> A wastewater treatment unit |
| <input type="checkbox"/> Use within a state conservation district | <input type="checkbox"/> Waste-to-energy facility |
| <input type="checkbox"/> Use within a shoreline setback area | <input type="checkbox"/> Landfill |
| <input type="checkbox"/> Use within a national or Hawaii registered historic site | <input type="checkbox"/> Oil refinery |
| <input type="checkbox"/> Use within the Waikiki Special District | <input type="checkbox"/> Power-generating facility |
| <input type="checkbox"/> The construction, expansion or modification of helicopter facility | <input type="checkbox"/> None of the above 11 items |

INSTRUCTIONS FOR FILLING OUT APPLICATION FOR GROUND WATER USE PERMIT FOR A PROPOSED NEW USE OR TO MODIFY A GROUND WATER USE PERMIT

This application form is to be used for proposed new uses, including modifications of existing ground water use permits. **If you are applying for an existing ground water use, which are uses prior to the effective date of designation, do not use this form.** Instead, use the *Application for Ground Water Use Permit for Existing Use* (Form GWUPA-E) for existing uses.

Most questions can be addressed by visiting our website at <http://www.hawaii.gov/dlnr/cwrm> or by contacting the Regulation Branch at 587-0225 or by e-mail at dlnr.cwrm@hawaii.gov. If you need further assistance, call the Regulation Branch. The current application forms are available at: http://www.hawaii.gov/dlnr/cwrm/resources_permits.htm.

REQUIREMENTS FOR A COMPLETE APPLICATION

- a. Fill in the most recent application form. A current form can be obtained by going to our website or contacting us by phone or e-mail.
- b. Print in ink or type the information on the application.
- c. The application form has a total of 16 items on 4 pages. Items 11, 12, and 13 are tables, with multiple line items. Fill in the required information for every item in the application form as it relates to your proposed new use or permit modification.
- d. Enclose a check for the non-refundable filing fee of \$25 payable to: Department of Land and Natural Resources. (Government agencies are not required to pay the filing fee.)
- e. Please be aware that the applicant is responsible for paying the cost of publishing any required public notices associated with this application. The cost for public notices is currently approximately \$400.00. Commission staff will provide instructions later in the permit process regarding payment of these costs.
- f. Mark the proposed source and end use location(s) on the appropriate USGS quad map (scale 1:24,000) and property tax map, and attach these maps to the application.
- g. Attach photos showing the existing or proposed source(s), meter(s) (if applicable), and end use area(s).
- h. Both the applicant and the landowner where the source is located ("source landowner") must sign the application form in ink.
- i. Submit the original application, **15 copies** of the application form and all attachments (maps, photos, and other attachments), and the filing fee to the Commission on Water Resource Management, P.O. Box 621, Honolulu, HI 96809.

Further, the applicant must address §174C-49(a) of the State Water Code, which states that:

To obtain a permit pursuant to this part, the applicant shall establish that the proposed use of water:

- (1) *Can be accommodated with the available water source;*
- (2) *Is a reasonable-beneficial use¹ as defined in section 174C-3;*
- (3) *Will not interfere with any existing legal use of water;*
- (4) *Is consistent with the public interest²;*
- (5) *Is consistent with state and county general plans and land use designations;*
- (6) *Is consistent with county land use plans and policies; and*
- (7) *Will not interfere with the rights of the department of Hawaiian home lands as provided in section 221 of the Hawaiian Homes Commission Act.*

¹ According to §174C-3, HRS, "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.

² Public interest is described in §174C-2(c), HRS, which states: [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.

NOTE: Filing in the application completely will address §174C-49(a), HRS.

LINE-BY-LINE INSTRUCTIONS FOR COMPLETING THE APPLICATION FORM

APPLICANT INFORMATION

In accordance with the Hawaii Water Code, both the applicant and the person who owns the property where the water source is located are required to apply for a water use permit. §174C-51(1)(B), HRS, states, *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 INFORMATION** Fill in the information for the applicant. This should be the person who will be responsible for all conditions of the water use permit.
2. **SOURCE LANDOWNER INFORMATION** Fill in the information for the landowner of the property where the proposed ground water source (e.g., well, modified spring, tunnel, shaft, etc.) is located.

SOURCE INFORMATION

3. **ISLAND** Check the appropriate box, noting the island where the source is located.
4. **GROUND WATER MANAGEMENT AREA** The name of the aquifer system area where the source is located.
- 4A. **SUSTAINABLE YIELD** The sustainable yield for the aquifer system area.
5. **SOURCE INFORMATION**
 - **WELL NUMBER** If the source already has a state-assigned well number, write the state well number here.
 - **WELL NAME** If the proposed source already has a name, write the name here. Otherwise, give it a short name that will differentiate it from other wells.
 - **SOURCE TMK** Fill in the current Tax Map Key number of the parcel where the source is located.
 - **FLOWMETER INFORMATION** Check either "Yes" or "No." If you answer "Yes," write in the date the flowmeter was installed month/day/year in the space provided. (The definition of a working flowmeter is a water meter with a totalizer that gives the total quantity of water used from a source.)

PROPOSED USE INFORMATION

(Ref. §§ 174C-51(4), (5), (6), HRS)

6. **TOTAL QUANTITY OF WATER REQUESTED** Enter the amount of water requested as gallons per day (GPD) averaged over one year. Fill out Table 1 and enter the amount in Box 14, "Total Use Requested."

7. **PROPOSED USE(S)** Check all the boxes that apply for the proposed use. Refer to the instructions for Table 1: Land Use Consistency/Efficiency of Use, Item 1: Purpose/Water Use Category below to determine which water use category to use.
8. **LOCATION OF PROPOSED WATER USE(S)** Show the location of the proposed use on the same USGS and TMK maps as the proposed source location. Otherwise, attach similar maps and show the location of the proposed use.

APPLICANT SIGNATURES REQUIRED

9. **APPLICANT** The Applicant must sign and date the application. Please print or type the Applicant's name in the space provided.
10. **SOURCE LANDOWNER** The Source Landowner must also sign and date the application. Please print or type the Source Landowner's name in the space provided.

PROPOSED NEW USE OR MODIFIED USE INFORMATION

11. **Table 1: LAND USE CONSISTENCY / EFFICIENCY OF USE** Provide information on all of the proposed uses you are applying for or seeking to modify. In the space provided below the table or on a separate sheet, explain whether there are any limitations [e.g., a contract or other legal agreement(s)] on your proposed water use(s), as required by §174C-51(5), HRS.

- A. **PURPOSE / WATER USE CATEGORY** For each purpose of use, choose one of the categories listed in the table below and enter the appropriate code in the space provided (e.g., AGRAQ, IRRGC, etc.)

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

- B. **USE TMK** Enter the tax map key (TMK) number for the parcel of land over which the use is applied. There should only be one parcel for each line. Also, attach:
 - (1) A TMK map (or maps) showing each of the lots listed and the boundaries of the end use area(s); and
 - (2) A photograph of the area of use.
- C. **STATE LAND USE DISTRICT** Write in the name of the current land use district. To find the Land Use District, contact the Land Use Commission at (808) 587-3822.
- D. **CDUP REQUIRED?** Check the appropriate box. If a Conservation District Use Permit (CDUP) is required and you have a CDUP applicable to this project, check "Yes" and write in the date approved in the space provided (month/day/year). If your parcel is in a conservation district, as indicated in Column C of this table, contact the Office of Conservation and Coastal Lands at (808) 587-0328 to find out if a CDUP is required.
- E. **COUNTY ZONING CODE** To find out the County Zoning Code for Oahu, contact the City and County of Honolulu at 768-8041. For Maui County, contact at 270-7253.
- F. **SMAP REQUIRED?** Check the appropriate box. If a Special Management Area Permit (SMAP) is required, and you have an SMAP applicable to this project, check "Yes" and write in the date approved in the space provided (month/day/year). To find out if your parcel is in a Special Management Area and requires an SMAP, for Oahu call the City and County of Honolulu at 768-8014 or for Maui County call the Planning Department at 270-8205.
- G. **UNITS or NET ACREAGE** This is the total number of units or the net number of acres as a basis for calculating your requested allocation. "Unit" can mean a dwelling unit, number of people, or number of animals. Some examples of units or acreages to enter in this column would be 400 dwelling units, 500 people, or 3.74 acres.
- H. **GPD/UNIT or GPD/ACRE** (GPD = gallons per day) Enter the gallons per day per unit (GPD/unit) or gallons per day per acre (GPD/acre) for each water use category listed in Column A.
- I. **QUANTITY OF USE** Enter the proposed quantity of water use in gallons per day (GPD). Justification (see Column J) for the quantity(ies) requested may depend on the information provided in columns G and H of this table.
- J. **JUSTIFICATION FOR QUANTITY OF WATER REQUESTED** Explain how you are justifying the quantity of water requested for each use, in Column I of this table. Attach additional sheets, if necessary, showing how the proposed quantity was calculated. For all proposed irrigation uses, you are required to also complete Item 12 (Table 2) of the application.
- K. **TOTAL POTABLE USE** Add the quantities listed in the Column I for proposed potable water use(s). Enter the total quantity in gallons per day (GPD) in Box K.
- L. **TOTAL NON-POTABLE USE** Add the quantities listed in Column I for proposed uses that do not require potable water. Enter the total quantity of proposed non-potable water use in gallons per day (GPD) in Box L.
- M. **TOTAL QUANTITY OF WATER REQUESTED** Add the totals in Box K and Box L, and enter the sum in Box M. The quantity in Box M should be the same as the amount entered under Item 6 on the page 1 of the application.

12. TABLE 2: IRRIGATION INFORMATION

On Table 2, provide the information requested for all the crops you are proposing to grow, including landscapes and golf course turf and plants. Enter only one crop and one parcel number (TMK) per line. For multiple crops, list each one as a separate line item. All proposed or modified irrigation uses you are applying for must be listed. Attach additional copies of Table 2, if necessary.

- A. **TMK FOR PROPOSED LOCATION OF USE** Enter the parcel number where the crop will be grown. Also, attach a property tax map with an outline around the area(s) of proposed use(s) and a photograph of each area of proposed use.
- B. **CROP** Enter the crop type
- C. **TOTAL ACREAGE** Enter the total acreage of the parcel listed.
- D. **NET IRRIGATED ACREAGE** Enter the acreage that the specific crop will be grown.
- E. **BEGIN GROWTH PERIOD (MONTH)** This is the month of the start of the growth cycle.
- F. **END GROWTH PERIOD (MONTH)** This is the month of the end of the growth cycle.
- G. **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 in the space provided for comments (Column I and/or below the table).
- H. **IRRIGATION PRACTICE** Enter one of the following:
 - IRRIGATE TO FIELD CAPACITY
 - APPLY A FIXED DEPTH PER IRRIGATION
 - DEFICIT IRRIGATION
 - OTHER – Please describe in the space provided for comments (Column I and/or below the table).

13. TABLE 3: ALTERNATIVES ANALYSIS

You should address every alternative and explain why each alternative is or is not available for your proposed potable and non-potable water needs. Other alternatives (last row of Table 3), may include stormwater reclamation, rainwater catchment, or other alternatives not already listed above.

Surface water is defined in §174C-3, HRS 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.*

For **Conservation Measures**, please describe any conservation measures that will be used to ensure that your water use is or will be efficient. Conservation measures may include, but are not limited to, water reuse or recycling systems, monitoring the water distribution system for pressure drops that are indicative of leaks or line breaks, or use of drought-tolerant and xeriscape landscape plants.

14. PUBLIC INTEREST

Explain in the space provided or on a separate sheet why the proposed new use(s) on your application are consistent with the public interest.

15. INTERFERENCE WITH THE RIGHTS OF THE DEPARTMENT OF HAWAIIAN HOME LANDS

Explain in the space provided or on a separate sheet how the proposed new use(s) of water will not interfere with the rights of the Department of Hawaiian Home Lands, as provided in section 221 of the Hawaiian Homes Commission Act. To inquire about potential interference, you may contact the Department of Hawaiian Home Lands main line at 620-9500, or the DHHL Planning Office at 620-9480. You may also visit their website at dhh.hawaii.gov, where you can review DHHL's Island Plans, Regional Plans, and their Water Policy Plan.

The State Water Code in §174C-101(a), HRS [Native Hawaiian water rights], states: *Provisions of this chapter shall not be construed to amend or modify rights or entitlements to water as provided for by the Hawaiian Homes Commission Act, 1920, as amended, and by chapters 167 and 168, relating to the Molokai irrigation system. Decisions of the commission on water resource management relating to the planning for, regulation, management, and conservation of water resources in the State shall, to the extent applicable and consistent with other legal requirements and authority, incorporate and protect adequate reserves of water for current and foreseeable development and use of Hawaiian home lands as set forth in section 221 of the Hawaiian Homes Commission Act.*

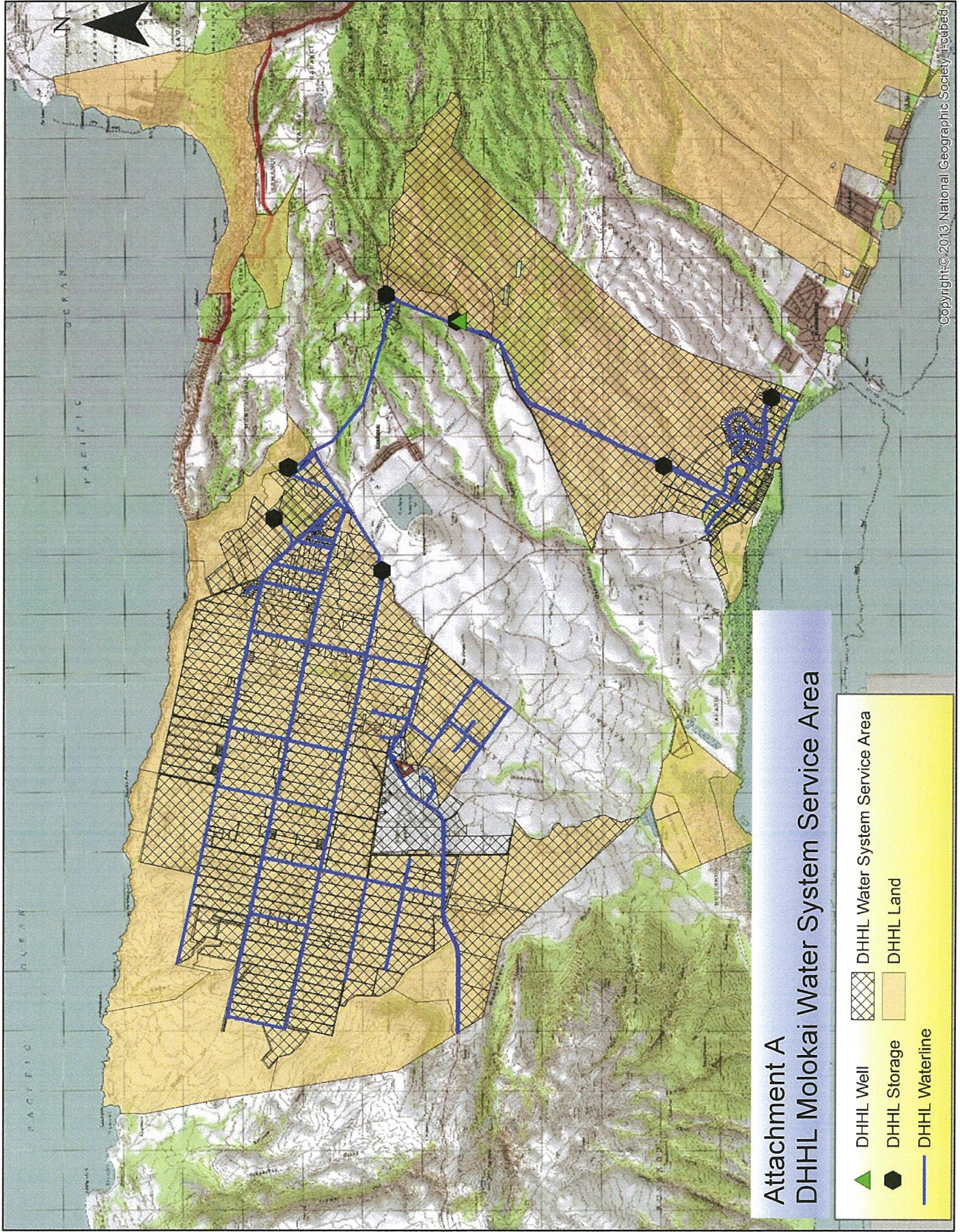
16. INTERFERENCE WITH ANY EXISTING LEGAL USES

Explain in the space provided or on a separate sheet how the proposed new use(s) of water will not interfere with any other existing legal use(s) of water.






17. PUBLIC WATER SYSTEM INFORMATION

Check the appropriate box or boxes relating to your existing or proposed new water system.

18. CHAPTER 343 If an Environmental Assessment was completed, fill in the dates of publication and acceptance. For additional information about the proposed uses checkboxes, refer to http://luc.state.hi.us/docs/hrs_343.pdf



Attachment A
DHHL Molokai Water System Service Area

-  DHHL Well
-  DHHL Storage
-  DHHL Waterline
-  DHHL Water System Service Area
-  DHHL Land

Attachment B.
Attachment to Water Use Permit Application (WUPA) to modify WUP 267
Draft September 17, 2020

4. A. SUSTAINABLE YIELD FOR ITEM 4

The current Sustainable Yield (SY) for the Kualapu`u Aquifer System Area is currently 5.0 million gallons per day (mgd), set when the Commission on Water Resource Management (CWRM) adopted the Water Resources Protection Plan 2019 Update (WRPP) on July 16, 2019. That document left the Kualapu`u Aquifer System Area SY at the same amount as in the 2008 WRPP. This was explained by CWRM in part by footnote 17 to Table F-10 of Appendix F of the 2019 Update:

The Previously Adopted SY (2007) for the Kualapuu Aquifer System Area dates to a 1996 recalculation of sustainable yield based on a revised recharge number and modified RAM calculation (see comment 5 above). Based on (1) current ground water demands within the system, (2) the fact that the 5 MGD falls within the predicted range of sustainable yields for the aquifer system, (3) the presence of a deep monitor well within the system that will allow for long-term monitoring of the transition zone, and (4) the existence of ground water models for the system, CWRM elected to maintain the sustainable yield at 5 MGD.

In a previous Public Hearing Draft Submittal dates January 28, 1998 for the DHHL September 13, 1996 WUPA for these same sources, CWRM staff noted:

This is the maximum average rate that ground water can be withdrawn from the aquifer system without impairing the utility or quality of the aquifer system as a whole. However, this is water availability on a regional aquifer-wide scale as opposed to a localized well infrastructure scale.

The current SY of 5.0 mgd was chosen by CWRM staff and adopted by that Commission itself as a number at the bottom of a range of 5-8 mgd which is noted as being the SY Range 2019 in the Table F-10 of Appendix F of the 2019 Update. According to footnote 3 of that table and the 2019 SY Range column, "The bounds of the sustainable yield range were set based on the minimum and maximum estimates resulting from the comparison between the green columns: corrected RAM 2008, RAM + Updated best available Information, and RAM 2 + Updated best available Information."

The upper limit of 8 mgd appears in Tale F-10 in the column labeled "RAM + Updated Information", which itself has a footnote 2. Footnote 2 states that the numbers are "RAM or RAM 2 methodology using updated best information available for recharge estimates. In cases where multiple valid studies were published ranges of SY are shown."

We also note that the reference in Table F-10 for Molokai is a United States Geological Survey (USGS) publication from 1997 (Shade, P.J., 1997, Water budget for the Island of Molokai, Hawai'i: U.S. Geologic Survey Water-Resources Investigations Report 97-4155, 20pp.). That study estimated a recharge rate of 11 mgd, which would result in a calculated SY of 4.8125 mgd using the Robust Analytical Model (RAM) equation.

The basis for an upper limit of 8 in the range of SY for Kualapu`u is based on the lesser known 2008 Department of Health Source Water Assessment Program (SWAP) study using a recharge of 14 mgd. This results in a SY of 7.6, and CWRM chooses to round SY to nearest whole number, or 8 mgd.

6. TOTAL QUANTITY OF WATER REQUESTED. DHHL is requesting 0.595 million gallons per day (mgd), the amount of water it can reliably pump and deliver from its two wells. This accounts for a portion *but not all* of our near-term needs, as described further below. As of June 30, 2020, there are 2,089 qualified beneficiaries on the Molokai waiting lists (816 for residential, 1,069 for agricultural, and 204 for pastoral lots). Expressed as a percentage of SY, DHHL is seeking to increase its current allowed rate of using 7.34% by 4.56% to 11.9% (see 4, above).

7. PROPOSED USE(S) As they fall into the GWUPA-N (January 28, 2016) form “use” categories, DHHL proposed uses could be characterized as Agriculture, Domestic, Industrial, and Municipal, or alternately, simply Municipal (as the wells are the source for Public Water System (PWS) 230. **Here, DHHL is seeking to have this well permitted as a municipal well, but with the amount allocated for municipal use based on the additional information provided in this application.**

DHHL also makes the following observations for the record:

- The categories military, agriculture and industrial given in the instructions of FORM GWUPA-N (January 28, 2016) (page 6) are not defined by the state Water Code (HRS 174C-3).
- The category “municipal” is defined in the application identically to its definition in the code and in rule (e.g. HAR 13–171–2). However, municipal is not a category of use, as municipal systems can deliver water for multiple uses.
- The category “domestic” is defined in the application identically to its definition in the code and in rule (e.g. HAR 13–171–2). However, the subcategories offered in the form may contradict these definitions. For example, water used in office buildings does not clearly fall within the definition of domestic which “means any use of water for individual personal needs *and* for *household* purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation” (emphasis added).

We note the use categories may provide CWRM some basis to determine whether actual use rates or proposed duties are efficient and comparable to other uses. However, it does not

provide a basis for determination if the proposed uses fall within protected Public Trust use categories of water. DHHL notes here for the record there should not be conflation of the domestic category on the form with the protected Public Trust domestic uses as identified by Hawai`i courts (see Kaua'i Springs, 130 Haw. 407, 312 P.3d 283), as CWRM considers this and other applications for water.

DHHL also notes here for the record that DHHL reservations *and uses* are Public Trust uses of water. CWRM must recognize that in the Wai'ola case - which is the basis of key Hawai'i Supreme Court findings regarding DHHL reservation – the only issue presented to the Court was whether or not DHHL water *reservations* might have been harmed by the CWRM decision, which is why the court referred only to reservations.

However, the Water Code itself recognizes the Public Trust purpose of DHHL reservations *and uses*. For instance, all Water Use Permits issued in Water Management Areas – such as this one – are subject to the rights of DHHL (HRS 174C-49(a)(7)). Also, HRS 174C-101(a) protects reservations of water “for current and foreseeable development *and use*” (emphasis added) of water by DHHL, consistent with Section 221 of the HHCA. Thus, *current and foreseeable uses* are part of the reservation, and it is clear that DHHL uses, not only reservations are also a protected Public Trust purpose.

This is important because if CWRM staff only acknowledges that reservations for DHHL are Public Trust uses, the implication is that once water is delivered, protection for DHHL water use would evaporate and be equivalent to private commercial uses of water. Absent such a recognition, it would be as if the CWRM immediately passed new Interim Instream Flow Standards for all streams but did nothing to implement them once passed, including failing to stop new actual diversions. **The actual uses of water by DHHL and its beneficiaries are required to have the full protections of being a Public Trust use of water.**

Item 11 (Table 1). Item 11 of the WUPA asks for data regarding the proposed new or modified uses sought by the applicant. It seeks information allowing the CWRM and its staff to assess two broad areas of concern:

- The consistency of any proposed land uses requiring water with existing State Land Use District classifications, County Zoning, and Coastal Zone Management Act requirements (e.g. Special Management Area Permits); and
- The efficiency of the proposed uses and justification for the quantity sought.

This section of the attachment to our WUPA consequently describes:

- **Previously permitted uses under WUP 267;**
- **Proposed modified uses, including the proportion of non-potable uses and Public Trust uses;**

- **The consistency of uses with applicable regulations; and**
- **The efficiency of the current and future uses for which water is sought.**

Each of these four points is addressed in turn immediately, below.

Previously permitted uses under WUP 267

The current WUP held by DHHL (WUP 267), which we seek to modify here, was approved by CWRM on September 15, 1993. It was based on an application submitted dated July 2, 1993. According to the WUP 267 itself, transmitted to DHHL by letter dated March 19, 1996, the permitted amount was for “0.367 mgd (based on 358 domestic service connections and agriculture use)”. The application itself had requested .5 mgd for “350 individual customers including Molokai Airport.”

The staff submittal which the CWRM considered when granting WUP 267 noted the following:¹

According to a summary of DHHL's existing and foreseeable future water needs provided in a July 2, 1993 letter to the Commission (see Attachment C), existing withdrawals from DHHL Wells 1 & 2 for municipal use and for domestic consumption via 358 service connections are estimated at about 250,000 gpd.² However, the reports of actual monthly water usage submitted by the applicant indicate that the 12-month moving average withdrawal from the two sources is about 367,000 gpd.

In contrast, in Attachment C to that staff submittal, DHHL notes that “It currently has 306 homestead customers and 52 non-homestead customers, including the airport and high school.” This does add up to 358 service connections, but not “358 domestic service connections,” which imply household uses and demands (see also Item 7 response regarding the definitions of domestic uses).

In addition, the letter included as Attachment C to the staff submittal goes on to note “This same system serves the Moloka`i Airport, Moloka`i Intermediate and High School, Moloka`i Electric, the county fire department, and industrial needs, which currently consume an average 35,000 g[p]d.”

The September 15, 1993 staff submittal indicated that there was a use of 35,000 gpd for 52 non homestead customers (an average meter use of approximately 675 gpd). The DHHL has not been able to locate records for actual usage data from that time period. The 35,000 gpd amount seems a significant underestimation, as the 61 commercial meters now on the system

¹ “Applications for Water Use Permits. Kualapuu Ground Water Management Area, Molokai” Staff submittal for agenda item 9, Commission on Water Resource Management meeting of September 5, 1993, on file with CWRM.
² Gallons per day

used an average of approximately 146,000 gpd in 2019. DHHL believes it is likely that the commercial uses were higher in 1992 and the agricultural uses lower than indicated in the staff submittal. In addition, the 1993 staff submittal did not indicate if any of the agricultural uses were homestead uses, as opposed to commercial agricultural uses.

Based on the forgoing and in the absence of other records to the contrary, it appears the CWRM voted on September 15, 1993, to grant the following water uses summarized in Table DHHL-1, below.

Table DHHL-1. Water allocations, WUP 267³

Existing uses	Proposed Duty	Estimated demand (1992) (gpd)
306 homestead service connections	600 gpd/unit	183,600 ⁴
52 non-homestead customers	-	35,000 ⁵
Agricultural use	-	148,400 ⁶
TOTAL PERMITTED AMOUNT		367,000

Proposed Modified Uses

At a high level, DHHL seeks here to modify WUPA 267 to authorize the pumping of .595 mgd primarily for existing customers, and to add new homesteads as well (the latter being a Public Trust use of water). More specifically DHHL seeks water:

1. ***For 539 currently existing residential homestead service connections*** (a Public Trust use of water);
2. ***For 26 currently existing homestead agricultural service connections*** (a Public Trust use of water);

3 According to the CWRM minutes a representative of the Department of Hawaiian Home Lands “stated that the existing amount is acceptable but they would eventually have to come back to the Commission to request additional irrigation and potable water for future developments.”

4 The staff submittal for September 15, 1993 noted “It currently has 306 homestead customers and 52 non-homestead customers, including the airport and high school.”

5 Attachment C to the staff submittal of September 15, 1993 stated “This same system serves the Moloka`i Airport, Moloka`i Intermediate and High School, Moloka`i Electric, the county fire department, and industrial needs, which currently consume an average 35,000 g[p]d.”

6 Calculated by the remainder after water for other customers is subtracted from the total allocation.

3. ***For the existing use by the County of Maui, which in turn delivers it to currently existing domestic and possibly other customers*** at Kala`e in the amount of 22,000 gpd on average;⁷
4. ***For five (5) currently existing commercial agricultural meters*** (a private, commercial use of water); and
5. ***For currently existing various non-homestead uses of water*** including the Moloka`i Airport, Moloka`i Intermediate and High School, Moloka`i Electric, the county fire department, churches, civic organizations, small businesses, DHHL and other state facilities etc. (which are beneficial “commercial” use of water under Hawai`i water law).
6. ***For at least 171 new homestead residential service connections for lots*** at Ho`olehua (13), Nā`iwa (58), and Kalama`ula Mauka (100) (a Public Trust use of water);
7. ***For new homestead residential service connections meters to be made available for subdivided homestead lots*** (a Public Trust use of water).

To determine the amount of existing water use and its relationship to CWRM WUPA use categories, DHHL identified the relationship between existing customer categories in the DHHL utility billing system and the WUPA categories. This is presented in table DHHL-2.

⁷ Because DHHL does not have full information on the nature of Maui County’s customers or their usage rates, we do not assert here that the uses are a Public Trust use of water. We are not however asserting their uses are a private, commercial use of water and would welcome comment from Maui County on this matter.

Table DHHL-2. Crosswalk between PWS 230 Account Structure & WUPA Use Categories

DHHL Billing Usage Code (Utility Star)	DHHL Usage Category	Meter size (in inches)	2019 # of meters	Purpose / water use category (CWRM WUPA) ⁸
R301	Residential	5/8	530	DOM
R302	Residential	2	0	DOM
R303	Residential	1	9	DOM
WAG1M	Homestead Ag	5/8	22	AGRICULTURE
WAG2M	Homestead Ag	¾	0	AGRICULTURE
WAG3M	Homestead Ag	1	4	AGRICULTURE
CAG3	Commercial Ag	1	5	AGRICULTURE
W310	Commercial	5/8	29	COMM ⁹
W312	Commercial	1	3	COMM ¹⁰
W313	Commercial	1 ½	4	COMM ¹¹
W314	Commercial	2	11	COMM ¹²
W315	Commercial	3	1	COMM ¹³
W316	Commercial	4	2	COMM ¹⁴
W318	Commercial	8	1	COMM ¹⁵
W319	Commercial	Low flow	2	COMM ¹⁶
W320	Fire Rate		1	INDFP (Airport)
W365	N/a		8	DHHL

Based on the analysis in Table DHHL-2 and the information from our 2019 uses as reported in our billing software for customers, DHHL identified the following existing and future water needs.

⁸ All DHHL Uses are also MUNST – Municipal, State; however, that “Usage Code” is a manner of delivery rather than a use.

⁹ Veteran’s Cemetery, State Agencies, Churches, Credit Union, Post Office, FAA, Hikiola Coop, Maui Electric Company, Sandwich Isles Communications, University of Hawai`i, Molokai Humane Society, Molokai Homestead Livestock Association., Kalaniana’ole Hall

¹⁰ Akea Farms, Church, US Department of Agriculture Plant Material Center

¹¹ Ho’olehua Fire Station, Molokai Baptist Church, Department of Education (Athletic Field)

¹² Airport, Kulana ‘Oiwi, Church, Kualapu’u Charter School, Island Utility Services (Molokai Ranch)

¹³ R.W. Meyer Ltd.

¹⁴ Department of Education, Molokai Slaughterhouse

¹⁵ County of Maui, Water Supply

¹⁶ R.W. Meyer Ltd., Department of Education

Table DHHL-3. Requested Water Allocations, 2020 WUPA

Proposed uses	Quantity	Water System Standard (WSS)	Demand based on WSS	2019 average gpd (rounded) ¹⁷	2020 requested amount
Homestead residential service connections	539	600 gpd/unit	329,400	249,000	249,000
Homestead agricultural service connections	26 meters serving approximately 315.5 acres	5000 gad ¹⁸	1,577,500	39,186	40,000
2 commercial agricultural (farming) service connections	2 meters serving 30 acres	5000 gad	150,000	12,243	12,400
3 commercial agricultural (livestock) service connections	3 meters serving 2,506 acres	n/a			
New, committed service connections (Kalama`ula mauka, Nā`iwa, Ho`olehua)	171	600 gpd/unit	102,600	-	102,600
Maui County delivered water	1 meter		21,000	21,000	21,000
Other commercial connections	61 meters	various	-	146,000	146,000
Sub-dividable homestead lots	40 ¹⁹	600 gpd/unit	24,000	-	24,000
TOTALS			2,028,700	524,429	595,000

Depending on how CWRM chooses to authorize the permit that responds to this WUPA, there are two alternate ways to characterize our proposed request:

1. DHHL seeks an additional 228,000 gpd beyond its permitted 367,000 gpd for additional homestead lots, which includes 171 new, committed service connections for Kalama`ula mauka, Nā`iwa, and Ho`olehua and up to 210 service connections for

¹⁷ Based on data from the DHHL Utility Star system

¹⁸ Gallons per acre per day

¹⁹ Molokai Island Plan (https://dhhl.hawaii.gov/wp-content/uploads/2012/05/Island_Plan_Molokai_2005.pdf), which is still in effect, authorized the subdivision of specific lands in Ho`olehua that could potentially yield 544 agriculture homesteads (p. ES-3).

- lots that can be created through subdivision, out of the maximum 544 homesteads that could be created through subdivision under the 2005 Molokai Island Plan; or
2. DHHL seeks an allocation of 436,600 gpd for recognized Public Trust uses of water, and an additional 158,400 gpd for non-Public Trust, reasonable beneficial uses of water.

The agricultural uses of water (Homestead service agricultural connections and the five commercial agricultural service connections) require only non-potable water, for a total of 52,400 gad. The remaining uses require potable water.

Finally, we note that it has been the practice of the three major water providers in central Molokai (Maui DWS, the relevant subsidiaries of Molokai Ranch, and DHHL) to provide water to each other when one water system has become inoperable due to pump failure or other reasons. To the extent that such emergency provision of water must be authorized by CWRM, DHHL seeks such authorization in this WUPA.

Land Use Consistency for Modified Proposed Uses

To the extent the WUPA form seeks information to determine if existing and proposed uses are consistent with land use controls, we note that the HHCA holds jurisdiction for determining the uses of its lands under its control, and does so under its own planning system. Hence, the requested information under columns C, D, E, and F are not applicable to DHHL. The inapplicability of State Land Use Commission and County zoning to DHHL lands has been addressed in Attorney General's Opinions, most recently on November 13, 2019. While based on numerous provisions of the HHCA and legislative history, two provisions are particularly relevant.

Section 204 of the Hawaiian Homes Commission Act of 1920 provides:

"...all available lands shall immediately assume the status of Hawaiian home lands and be under the control of the department to be used and disposed of in accordance with the provisions of this title..."

Section 206 provides:

"The powers and duties of the governor and the board of land and natural resources, in respect to lands of the State, shall not extend to lands having the status of Hawaiian home lands, except as specifically provided in this title."

Based on these provisions and other law, the request for information under columns C, D, E, and F are not applicable to DHHL.

12. TABLE 2: IRRIGATION INFORMATION

While DHHL is the title holder of almost all of the land to which irrigation water is provided, it is not the operator or lessee and has no control of the crops or livestock choices made by lessees. **We note that Table DHHL-3 above shows that the actual 2019 irrigation use is minimal, and below what County Water System Standards would allow.**

13. TABLE 3: ALTERNATIVES ANALYSIS

DHHL's responses to this item are as follows, which support that DHHL's request in this WUPA cannot be practicably served by alternative sources at this time.

Municipal sources, for potable and non-potable use: There are two other "municipal" sources of water in close proximity to the two DHHL wells, owned by the County and Molokai Ranch and its subsidiaries. They are not meaningfully "alternate" sources when looking at the sustainability of the Kualapu`u Aquifer due to their proximity to each other.

Wastewater reuse for potable and non-potable use. The only major, non distributed source of wastewater in any proximity to the DHHL lands is the Kaunakakai Wastewater Reclamation Facility. It is owned by the County of Maui and was constructed in 1969 with a design capacity of 0.086 mgd. In 1984, the WWRf's design capacity was increased to 0.3 mgd. The WWRf provides secondary treatment of sewage and features rotating biological contractors, secondary clarifier, effluent filters, and chlorinators. Currently 0.289 mgd or 96% of the WWRf's design capacity of 0.3 mgd has been allocated. Reclaimed water from the Kaunakakai WWRf is used for irrigation purposes with the excess disposed of by injection wells.²⁰

There is no infrastructure DHHL is aware of to treat this effluent for potable use or to transport it for nonpotable use to areas where it could be a practicable alternative to current sources.

Ditch System and Surface Water Alternatives, for potable and non-potable use. The Molokai Irrigation System (MIS), owned and controlled by the state Department of Agriculture, is a theoretically available alternate source of water for non-potable uses in the DHHL service area. The MIS currently provides water to some homesteaders but not all who desire service. As it pertains to this application, 52,000 gpd of water is used for irrigation purposes. Not all of the areas that are currently serviced by this system can be serviced by the MIS, however.

Desalinization, for potable and non-potable use. Desalinization is not a practicable alternative due to energy costs on Molokai, the volume of water required, uncertain effects of disposal of

²⁰ <https://www.mauicounty.gov/DocumentCenter/View/83252/Maui-Infrastructure-Assessment-Update-condensed?bidId=>

residual brine, and unavailable capital. Requiring DHHL to develop a costly source of water to serve its Public Trust uses while CWRM continues to allow Molokai Ranch to serve non-Public Trust uses of water with less expensive groundwater (and without a valid permit) would be inconsistent with CWRM constitutional and statutory duties and case law.

Conservation Measures, for potable and non-potable use. DHHL's 2019 Performance audit of PW 230, our Non-revenue water as a percentage of volume of water supplied was 9%. Planned improvements to the Ho'olehua Water System will increase water conservation by reducing existing leakage and loss across the system (reduction of "non-revenue water"). These planned improvements were addressed in detail in a Final Environmental Assessment published in the Environmental Notice on June 8, 2016.²¹

14. PUBLIC INTEREST

As explained above, DHHL seeks an allocation of 436,600 gad for recognized Public Trust uses of water, and an additional 158,400 gad for non-Public Trust, beneficial uses of water. It further seeks CWRM to consider that CWRM's own documents and other peer reviewed scientific information suggests that the full SY should not be allocated in order to provide 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."

DHHL further notes for the record that the analysis required by the CWRM to determine whether a permit should be granted, granted in part, or denied, must go well beyond the excerpt of the purpose section of the Code contained in this question. Extensive case law has explained the duties of CWRM and how this broad language must be implemented. Below we detail one key consideration, how any proposed use may impact traditional and customary practices.

Traditional and customary practices *Legal background that guided DHHL research*

DHHL conducted research in order to determine how its increased uses may impact traditional and customary practices. **Before we summarize our research detailed in Attachment C and its exhibits, we explain here how we determined our research purposes based on existing legal requirements.**

²¹ http://oeqc2.doh.hawaii.gov/EA_EIS_Library/2016-06-08-MO-FEA-Hoolehua-Water-System.pdf#search=Hoolehua

Section §174C-49(a) of the State Water Code stipulates that to obtain a WUPA an applicant shall establish that the proposed use of water will not “interfere with any existing legal use of water” and “is consistent with the public interest.”

Earlier in the Code, the public interest is defined **in part** as follows (HRS §174C-2(c)):

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.

This broad purpose language in conjunction with other Code provisions has been subject to further interpretation by appellate Hawai`i courts. Two critical cases specifically dealing with groundwater withdrawal on Molokai (Waiola o Molokai, 103 Hawai`i 401, 83 P.3d 664 (2004) and Kukui Molokai, 116 Hawai`i 481, 174 P.3d 320 (2007)) helped develop this case law. Among other matters these cases clarified what the protected Public Trust uses of water were in Hawai`i, and that non-Public Trust users of water held a burden to show that their proposed uses did not harm Public Trust uses.

Building on those and other cases, clear guidance to agencies on how to evaluate requests was provided in the Kaua`i Springs case (130 Haw. 407, 312 P.3d 283). The Hawai`i Supreme Court stated (notes and citations omitted):

To assist agencies in the application of the public trust doctrine, we distill from our prior cases the following principles:

- a. The agency’s duty and authority is to maintain the purity and flow of our waters for future generations and to assure that the waters of our land are put to reasonable and beneficial use.
- b. The agency must determine whether the proposed use is consistent with the trust purposes:
 - i. the maintenance of waters in their natural state;
 - ii. the protection of domestic water use;
 - iii. the protection of water in the exercise of Native Hawaiian and traditional and customary rights; and
 - iv. the reservation of water enumerated by the State Water Code.

- c. The agency is to apply a presumption in favor of public use, access, enjoyment, and resource protection.
- d. The agency should evaluate each proposal for use on a case-by-case basis, recognizing that there can be no vested rights in the use of public water.
- e. If the requested use is private or commercial, the agency should apply a high level of scrutiny.
- f. The agency should evaluate the proposed use under a “reasonable and beneficial use” standard, which requires examination of the proposed use in relation to other public and private uses.

Applicants have the burden to justify the proposed water use in light of the trust purposes.

- a. Permit applicants must demonstrate their actual needs and the propriety of draining water from public streams to satisfy those needs.
- b. The applicant must demonstrate the absence of a practicable alternative water source.
- c. If there is a reasonable allegation of harm to public trust purposes, then the applicant must demonstrate that there is no harm in fact or that the requested use is nevertheless reasonable and beneficial.
- d. If the impact is found to be reasonable and beneficial, the applicant must implement reasonable measures to mitigate the cumulative impact of existing and proposed diversions on trust purposes, if the proposed use is to be approved.

Thus, following the principles in Kaua`i Springs, applicants for a permit from CWRM must:

- **Determine the degree to which the proposed uses are either:**
 - **consistent with trust purposes, or**
 - **private commercial uses**
- **If any proposed uses are inconsistent with trust purposes, determine for the proposed uses:**
 - **If they are reasonable and beneficial;**
 - **What their actual needs are;**
 - **If there is absence of practicable alternatives; and**
 - **If there is a reasonable allegation of harm to public trust purposes.**
- **If any proposed uses are inconsistent with trust purposes and they are reasonable and beneficial, the applicant must implement reasonable measures to mitigate the cumulative impact of existing and proposed diversions on trust purposes, if the proposed use is to be approved.**

The courts have not established any priority among the four Public Trust uses of water. However, it is notable that two are in situ, non-consumptive uses (waters in their natural state and water used in the exercise of Native Hawaiian and traditional and customary rights).

To further guide how applicants requesting consumptive uses of water should evaluate such impacts, the Hawai'i Supreme Court's guidance in *Ka Pa`akai o Ka `Āina* (94 Hawai'i 31, 7 P.3d. 1068 (2000)) is applicable, which was an appeal of a decision by the state Land Use Commission (LUC). There the court noted:

We therefore provide this analytical framework in an effort to effectuate the State's obligation to protect native Hawaiian customary and traditional practices while reasonably accommodating competing private interests: In order to fulfill its duty to preserve and protect customary and traditional native Hawaiian rights to the extent feasible, the LUC, in its review of a petition for reclassification of district boundaries, must -- at a minimum -- make specific findings and conclusions as to the following:

- (1) the identity and scope of "valued cultural, historical, or natural resources" in the petition area, including the extent to which traditional and customary native Hawaiian rights are exercised in the petition area;
- (2) the extent to which those resources -- including traditional and customary native Hawaiian rights -- will be affected or impaired by the proposed action; and
- (3) the feasible action, if any, to be taken by the LUC to reasonably protect native Hawaiian rights if they are found to exist. "

The guidance to the LUC there is applicable to and binding against other agencies, including DHHL and CWRM.

Based on this legal background, the research undertaken by DHHL was designed to fulfill the following purposes:

- 1. Review the peer reviewed 2020 USGS study of Molokai groundwater that identified the coastal areas that may experience reduced groundwater flow as result of increased DHHL pumping; and**
- 2. Within that area, determine:**
 - a. The identity and scope of any valued cultural, historical, or natural, groundwater dependent resources;**
 - b. The extent to which traditional and customary native Hawaiian rights have been, are, or are planned to be exercised in relation to those resources;**
 - c. The extent to which there may be a reasonable allegation of harm by practitioners to those resources and practices, resulting from the proposed pumping; and**

- 3. If the proposed DHHL uses are determined by the CWRM to be either consistent with Public Trust purposes and/or reasonable and beneficial, help identify reasonable measures to mitigate the cumulative impact of existing and proposed pumping on those groundwater dependent resources and practices.**

Traditional and customary practices research summary

The research conducted is summarized in the attached memorandum, “Investigation of Cultural Impacts for the Molokai Water Use Permit Application”, which itself has four exhibits. Trusted interviewers discussed traditional and customary resources and practices with selected practitioners in the Kalama`ula area.

Long term, multi-generational Kalama`ula homesteaders are aware without prompting of the importance of mauka-makai freshwater flows to the health of their nearshore environment, and this information comes from generational experience. While the practice of subsistence fishing and harvesting of limu and shellfish is slowly diminishing, it still plays an important role in the society, culture and identity of homesteaders in Kalama`ula, and there is a desire to see it revived and perpetuated. Proper care and protection of these resources is important to the homesteaders interviewed, and to their `ohana.

As the community gradually loses its cherished kupuna, like Aunty Kauila Reyes, there is concern that the values and traditional practices and ecological knowledge that sustained Kalama`ula for generations may not be perpetuated.

Just as is the case with scientists studying groundwater dependent ecosystems elsewhere in the world, homesteaders knew that ongoing groundwater flow was critical to the perpetuation of these valued resources, but they also knew that other physical, biological, and social impacts were also affecting them. From the interview with Penny Martin:

Native mullet – need freshwater seeps. Used to be way more fresh water. She has come to understand that kiawe trees and mangrove both use up lots of fresh water. She thinks there are less ʻōpae (shrimp) because there is less fresh water. She thinks there are less `āholehole (Hawaiian flagtail) for the same reason.

The known experience of this complexity did not lead interviewees to merely conclude the issues should simply be studied more, however. Rather, interviewees sought to take other actions to address the impacts of these withdrawals, by directly managing other harmful impacts on these areas. Again, Ms. Martin:

She recommends removing the mangrove (shrub/small tree that grows in coastal saline or brackish water) and kiawe (*Prosopis pallida*) to counteract less fresh water reaching the shoreline.

Cattle up mauka – deer – eating the vegetation. [Soil is] running off. She said we must consider how to control erosion before removing the mangrove, which was planted to control erosion. Mangrove helps control silt run off but it takes/uses so much fresh water. She said the key to erosion control is managing mauka rain runoff and therefore proper management of the watershed.

Based on this research, DHHL believes that if this WUPA is issued for the requested amount, permit conditions should include that DHHL shall

- **Work to implement community-led efforts to replace invasive species with native species to try to improve the health of the coastal ecosystem;**
- **Supported and encourage efforts to reduce erosion and restore native vegetation in Kalama`ula's mauka areas; and**
- **Make available certain Community Use designated areas as outdoor classrooms for schoolchildren, particularly for the perpetuation of traditional and customary groundwater dependent practices and resource management.**

These conditions would be consistent with policies in DHHL's Water Policy Plan (<http://dttl.hawaii.gov/wp-content/uploads/2013/09/HHC-Water-Policy-Plan-140722.pdf>) which stipulates that DHHL shall "Develop, manage, and steward water in a manner that balances cost, efficiency measures, and Public Trust uses in the short and long term."

in coordination with the traditional ecological knowledge, ingenuity, resourcefulness and cultural grounding of the Kalama`ula homestead community, would serve as a shining example of collaborative natural and cultural resource management and education that could serve to mitigate potential impacts to nearshore resources and protect our most precious island resource, our wai.

15. INTERFERENCE WITH THE RIGHTS OF THE DEPARTMENT OF HAWAIIAN HOME LANDS

The proposed uses of water will be by the Department of Hawaiian Home Lands, the applicant here. As described above, there are "private, commercial uses" of water that are non-Section 221 uses on the DHHL system, such as water used by the Molokai Airport and Molokai High School. To the degree that such uses can be said to interfere with Section 221 uses, DHHL believes they are reasonable and beneficial, and the granting of this permit will allow other new Section 221 uses to begin.

DHHL intends that some of the permitted water, if this WUPA is granted, drawn against the reservation it holds for water from this aquifer. This is detailed immediately below.

DHHL's reserved and permitted water in Kualapu'u

DHHL holds both an existing permit for water as well as a reservation made by rule. The latter is codified in HAR §13-171-63 which states:

Department of Hawaiian home lands reservation for Kualapuu, Molokai. The commission hereby reserves 2.905 million gallons per day of ground water from state lands in the Kualapuu aquifer system for use on Hawaiian home lands on Molokai. This amount shall be in excess of the existing uses of water on Hawaiian home lands as of the effective date of this rule. [Eff. June 10, 1995]

Determination of the “existing uses of water on Hawaiian home lands as of the effective date of this rule” is challenging, however. Some considerations are:

- DHHL has its average daily pumping rate for June 1995;
- It delivers water to lands that are not “Hawaiian home lands” (e.g. the airport and Molokai High School);
- DHHL has not located delivery records for that date;
- The existing use permit (WUP 267) (approved September 15, 1992) is for .367 mgd;
- WUP 267 specified it is for “0.367 mgd (based on 358 domestic service connections and agriculture use)”;

Based on the above it appears that DHHL's rights to water in the aquifer – its permitted amount and its reservation amount – are at a minimum of 2.905 mgd + .367 mgd.

Also based on the above DHHL is here requesting additional water requested beyond our currently permitted amount (0.595 - 0.367 mgd, or 0.228 mgd). As detailed above, currently DHHL delivers a one-year average (based on 2019 numbers) of 158,400 gad of water not used on DHHL lands or water used on DHHL lands for non HHCA 221 purposes. Thus, consistent with the reservation cited above which is solely for water on Hawaiian home lands, we currently are permitted 367,000 gpd “for use on Hawaiian home lands”; our current permit seeks 436,600 gpd “for use on Hawaiian home lands,” and therefore the difference (436,600 – 367,000) or **69,600 gpd would be understood by DHHL to be a draw from our reservation for the use of water “on Hawaiian Home Lands”.**

16. INTERFERENCE WITH ANY EXISTING LEGAL USES

Currently, the only major existing permit holder with existing legal uses is the County. The USGS model referenced earlier indicates that the uses DHHL seeks here along with the current and anticipated requests of the County will not cause chlorides to exceed EPA secondary standards.

The other "existing legal uses" are the uses of water in the exercise of traditional and customary practices described in response 14, above and Attachment C and its exhibits.

Molokai Ranch does not have an existing legal use of water from Well 17. As the Hawai'i Supreme Court noted in Kukui on this exact subject, referring to the Ranch's subsidiary Kukui Molokai Inc or KMI: "In light of the foregoing, DHHL is correct that the Commission erred by considering KMI's untimely request for existing uses. Therefore, we vacate the Commission's Decision and Order to the extent that it grants KMI a permit for existing uses. If, on remand, KMI wishes to "revive" these expired uses, it must apply for a permit under HRS § 174C-51 as the uses are now presumed abandoned. See HRS § 174C-50(c)." Kukui Molokai, 116 Hawai'i 481, 174 P.3d 320 (2007).

MEMORANDUM

TO: Andrew Choy, Acting Planning Program Manager
FROM: Nancy McPherson, Planner
REVIEWED: Jonathan Likeke Scheuer, Ph.D., Water Policy Consultant
SUBJECT: Investigation of Cultural Impacts for the Molokai Water Use Permit Application
DATE: September 15, 2020

Introduction and Purpose the Research

The Department of Hawaiian Home Lands (DHHL) undertook research in support of its Water Use Permit Application (WUPA) that will request a small increase in the volume of water pumped from the Kualapu'u Aquifer on Molokai, Hawai'i. If granted in full, the WUPA would raise DHHL's overall pumping allocation from about 7% to just under 12% of the "Sustainable Yield" of the aquifer as that is determined by the Commission on Water Resource Management (CWRM). However, for CWRM to grant any WUPA request – no matter how small an increase – applicants must affirmatively demonstrate their uses are both in the public interest and will not interfere with existing legal uses of water.

Due to the hydrological connection between pumping of the Kualapu'u aquifer and outflow of fresh water along the southern shoreline of Molokai at Kalama'ula, as evidenced by the results of the USGS Water Model for the Kualapu'u Aquifer¹, DHHL staff and consultants felt it would be highly desirable to prepare this research designed to evaluate potential impacts to native Hawaiian users of the shoreline that could be reasonably alleged to occur due to increased pumping of the aquifer. Molokai is known for the relatively high percentage of people who practice subsistence hunting, fishing and gathering to provide healthy food for their families as well as to supply resources for cultural practices, such as pā'ina for a baby's first birthday.

More specifically, to help meet these two permit application requirements, our research purposes were to:

1. Review the peer reviewed 2020 USGS study of Molokai groundwater that identified the coastal area that may experience reduced groundwater flow as result of increased DHHL and other pumping; and
2. Within that coastal area, determine:
 - a. The identity and scope of any valued cultural, historical, or natural, groundwater dependent resources;

¹ Oki, D.S., Engott, J.A., and Rotzoll, K., 2020, Numerical simulation of groundwater availability in central Moloka'i, Hawai'i: U.S. Geological Survey Scientific Investigations Report 2019–5150, 95 p., <https://doi.org/10.3133/sir20195150>.

- b. The extent to which traditional and customary native Hawaiian rights have been, are, or are planned to be exercised in relation to those resources;
 - c. The extent to which there may be a reasonable allegation of harm by practitioners to those resources and practices, resulting from the proposed pumping; and
3. If the proposed DHHL uses are determined by the CWRM to be either consistent with Public Trust purposes and/or reasonable and beneficial, help identify reasonable measures to mitigate the cumulative impact of existing and proposed pumping on those groundwater dependent resources and practices.

These research purposes were determined by a review of relevant legal guidance including case law. That legal analysis is contained in the other attachments to the WUPA DHHL is submitting.

Methodology – interviewers selected

E. Halealoha Ayau and Nancy M. McPherson conducted the research. After reviewing the USGS study, including discussions of its findings with the authors, Ayau and McPherson conducted interviews with lifelong Kalamaʻula homesteaders who, either in the past or currently, used the resources of the Kalamaʻula shoreline area for traditional cultural and subsistence purposes. DHHL believed it was necessary the research be conducted by interviewers with long established relationships and high levels of trust with the interviewees. Discussions seeking to identify the and scope of valued cultural, historical, or natural resources mean that interviewees are being asked to share highly valuable and closely held generational knowledge, and it is not realistic to expect that such information would be casually shared with outside interests. **See also Exhibit 'A', Statement of Qualifications.**

Methodology – interviewees selected

The USGS study previously mentioned notes that decreased coastal flow due to increased pumping of wells in Kualapuʻu will affect both the northern and southern coasts of the island. The northern coastal areas affected under all scenarios other than the baseline are nearly all small strips of coastline at the base of high sea cliffs. While used for the exercise of traditional and customary practices, the impacts of pumping are more extensive on the southern coast and coincides with known areas of subsistence activity, including fishponds. This information, along with the skills and relationships of the interviewers, led to the decision to have interviews focused on individuals from the Kalamaʻula area on the south shore of Molokai. For proposed pumping scenarios where pumping is significantly increased, especially for non-Public Trust uses of water, a much broader set of interviewees from a larger stretch of the south coast of Molokai would be necessary.

Interview subjects were chosen based on a number of criteria, such as length of time living in Kalamaʻula, proximity of residence to the shoreline, knowledge of traditional and customary

practices such as subsistence harvesting of ocean resources and use of shoreline plants, and peer recommendations received from other Kalama'ula homesteaders. **See also Exhibit 'B', Ahupua'a Map, and Exhibit 'C', Area of Study.**

Methodology – interview questions and structure

For several of the interviews, the interviewers were joined by two shoreline consultants from the firm Planning Consultants Hawai'i LLC, who had been contracted by DHHL to work on another project, a shoreline erosion management plan for homestead communities along the southern shoreline of Molokai. The shoreline interviewers asked additional questions about ecological conditions, shoreline erosion and other changes to the shoreline area that had been noticed over the informants' lifetimes, and other traditional ecological knowledge. There was a prepared list of questions that was loosely used, although informants often followed a train of thoughts and memories that responded to multiple questions in varying sequences.

See Exhibit 'D', Interview Questions.

Seven Kalama'ula homesteaders were interviewed over four days, November 20-22, 2019 and February 10, 2020. The average length of interview was 90 minutes. Each interviewer took notes, and the notes were merged once transcribed. Often, after receiving a response to a question, interviewers asked follow-up questions for clarification, being careful not to ask leading questions that might influence the results. Once the notes were transcribed and merged, the draft transcription of their interview was emailed to informants for their review, correction and final approval. Transcribed interviews have been retained by DHHL.

Informants were initially asked about their and their 'ohana's connection to the Kalama'ula shoreline, which provided information about historic uses of the shoreline, the way of life in Kalama'ula in the early days, and similar information. Informants shared about having various kinds of knowledge taught to them by their grandparents and parents, particularly about the significance of the springs in the area and the sacredness of the Kapuāiwa Coconut Grove. They also talked about how they and their 'ohana practiced subsistence from the sea, caught various kinds of crab, fish and 'ōpae, gathered various kinds of limu, how abundant the resources were (particularly limu 'ele'ele because of the presence of fresh water), and how resources were shared with those homestead families who couldn't access the resources themselves. Types and traditional uses of plants along the shoreline were discussed. The informants talked about how self-sufficient the homesteaders were, how the 'ohana lived off of their ahupua'a (land and sea), and how everyone practiced mālama, kuleana and aloha 'āina, from the youngest keiki to the kūpuna.

The informants also provided important information about the amount and makai direction of flow of fresh water underneath the area, particularly under Kapuāiwa Coconut Grove, the history of uses and conditions of the various springs, and various mo'olelo and stories about the mo'o wahine that protects the springs. Out of respect, no one walked through the grove – they

either walked along the highway or walked along the shoreline. It was known that all the springs were connected, from 'Olo'olo on down. The most makai spring was always open to the ocean. Homesteaders reported that there were always large volumes of fresh water flowing mauka to makai, and that there were legendary instances of items being dropped into pools up mauka that were later found in the springs by the shoreline, so informants were very aware of the underground links between mauka sources of water and the makai springs, as well as the substantial amounts of water moving underground. One recent event that was shared was an instance where a waterline on the mauka side of the highway was being repaired, and a water pump was dramatically sucked underground by the strength of the flow of water toward the shoreline. The pump was never located.

Findings

Using the shoreline for subsistence was a way of life for most Kalama'ula 'ohana, but has become less so over time partially because the younger generation isn't practicing subsistence as actively and it's easier for homesteaders to go to the store to buy crab and ogo, for example. In addition, the invasion of mangrove and kiawe has made using the shoreline more difficult for Kalama'ula homesteaders over the generations, as it was reported that 50 years ago one could walk along the shoreline from Kalama'ula to the Wharf on a sandy beach. There was a sense from some informants that the mangrove and kiawe might be "sucking up" fresh water and depriving the shoreline ecosystems of fresh water sources that support limu, 'ōpae, crab and fish larvae that use nearshore areas as a nursery. It was reported that both in the springs and in the nearshore waters, the 'ōpae are nowhere near as abundant as they used to be when the informants were children. Others said that there are still 'ōpae, but it's not as easy to find them as it used to be.

Another impact that was reported was sedimentation caused by soil washing down from up mauka, due to soil erosion, that was smothering the reef, creating anaerobic conditions, and possibly obstructing offshore springs. Accelerated shoreline erosion may also be releasing increasing amounts of sediment into the nearshore waters. One informant reported that in his recollection, the shoreline areas were better maintained and cared for by the people in the past. In addition, several informants expressed the opinion that when the wharf road was made solid more than 50 years ago, the area west of the wharf started losing sand and became muddier. One informant said that the shoreline along Kapuāiwa Grove used to be muddy before, and now is hard.

An issue that was commonly reported is that the resources may be diminishing over time because of overharvesting and improper harvesting. Informants reported that non-homesteaders have been fishing and crabbing extensively on the Kalama'ula shallows, and collecting limu, in ways that are not the ways that the informants were taught to harvest, e.g. traditional practices such as using scissors to harvest and never pulling the roots of the limu off of the substrate, which ensured the long term sustainability and momona (abundance) of the

resource. In addition, the homesteaders never took more than they could eat, and if there was surplus, it was shared, first with the kūpuna who couldn't go out and harvest for themselves anymore. Another sentiment was that the native limu may be being outcompeted by the invasive gorilla ogo, which has been proliferating along the shoreline and taking all the nutrients. It was also reported that the most prolific limu in Kalama'ula was limu 'ele'ele, and that other types, such as manaua, were more easily found in Kamiloloa to the east.

Concern over recreational use of Kapuāiwa Grove and pollution of the springs was expressed. Young people have been going into the grove and partying, and it was felt that this was disrespectful and potentially harmful to the resources. Prior to World War II there was a caretaker's house on stilts out over the water, and a couple lived there (Burke) and watched over the Grove, so there was less pilikia and trespassing. People also respected the Grove as kapu and didn't go inside, which might have served to protect the springs. The homesteaders of Kalama'ula always used the shoreline for family gatherings and parties, but it seems there may have been more supervision of activities in the Grove and more enforcement in the past.

Most of the interviewees recommended removal of invasive species such as mangrove, kiawe, banyan, naupaka and false akulikuli (badis maritima, pickleweed) and replacing them with native shoreline and salt-tolerant species such as 'aki'aki grass, pōhinahina (beach vitex), hinahina (native gray heliotrope), 'Ilima, pōhuehue (beach morning glory), native akulikuli, naio (Myoporum sandwicense), milo, kou, hau, hala and native (not false) kamani. There were cultural, practical and medicinal uses for most of these plants, and even the weed uhaloa was useful as medicine.

The shoreline served as the community's icebox – that's where their food came from. Because of its history and cultural significance, two informants felt strongly that the Grove has an important role to play in educating the schoolchildren and the community. One informant suggested that a good community project would be to start measuring the amount of freshwater flow coming through the springs, along with salinity, to collect the data. There is a fear that the cultural and subsistence knowledge isn't being passed on.

Conclusion

Long term, multi-generational Kalama'ula homesteaders are aware without prompting of the importance of mauka-makai freshwater flows to the health of their nearshore environment, and this information comes from generational experience. While the practice of subsistence fishing and harvesting of limu and shellfish is slowly diminishing, it still plays an important role in the society, culture and identity of homesteaders in Kalama'ula, and there is a desire to see it revived and perpetuated. Proper care and protection of these resources is important to the homesteaders interviewed, and to their 'ohana.

As the community gradually loses its cherished kūpuna, like Aunty Kauila Reyes, there is concern that the values and traditional practices and ecological knowledge that sustained Kalama'ula for generations may not be perpetuated.

Just as is the case with scientists studying groundwater dependent ecosystems elsewhere in the world, homesteaders knew that ongoing groundwater flow was critical to the perpetuation of these valued resources, but they also knew that other physical, biological, and social impacts were affecting these precious things. From the interview with Penny Martin:

Native mullet – need freshwater seeps. Used to be way more fresh water. She has come to understand that kiawe trees and mangrove both use up lots of fresh water. She thinks there are less 'ōpae (shrimp) because there is less fresh water. She thinks there are less 'āholehole (Hawaiian flagtail) for the same reason.

The known experience of this complexity did not lead interviewees to merely throw up their hands and conclude the issues should simply be studied more, however. Rather, interviewees sought to take other actions to address the impacts of these withdrawals, by directly managing other harmful impacts on these areas. Again, Ms. Martin:

She recommends removing the mangrove (*Rhizophora mangle*, a shrub/small tree that grows in coastal saline or brackish water) and kiawe (*Prosopis pallida*) to counteract less fresh water reaching the shoreline.

Cattle up mauka – deer – eating the vegetation. [Soil is] running off. She said we must consider how to control erosion before removing the mangrove, which was planted to control erosion. Mangrove helps control silt run off but it takes/uses so much fresh water. She said the key to erosion control is managing mauka rain runoff and therefore proper management of the watershed.

Should the WUPA request be approved, programmatic implementation of the applicable values, policies and goals in DHHL's Water Policy Plan, in coordination with the traditional ecological knowledge, ingenuity, resourcefulness and cultural grounding of the Kalama'ula homestead community, would serve as a shining example of collaborative natural and cultural resource management and education that could serve to mitigate potential impacts to nearshore resources and protect our most precious island resource, our wai.

Community-led efforts to replace invasive species with native species to try to improve the health of the coastal ecosystem should be supported by DHHL, as should efforts to use certain Community Use areas as outdoor classrooms for schoolchildren. Efforts to reduce erosion and restore native vegetation in Kalama'ula's mauka areas should be supported and encouraged.

Edward Halealoha Ayau

- Raised on Molokai in the Ho'olehua homestead; grounded in traditional cultural knowledge, mo'olelo and 'ōlelo no'eau, by, among others, his tutu wahine, Kahu Harriet Ahiona Ayau Ne, a highly regarded kumu hula, educator, historian and Pa'a Mo'olelo Nō Molokai Nui a Hina (keeper of Molokai history)
- Trained since early adulthood by Kumu Edward Lavon Huihui Kanahale and Dr. Pualani Kanaka'ole Kanahale in cultural protocols of caring for iwi kūpuna (ancestral bones) and moepū (funerary possessions)
- Successfully repatriated over 6,000 sets of iwi kūpuna and moepū, nationally and internationally, over the past thirty years, in 120 cases
- Bachelor of Science in Business Management with a Minor in Cultural Anthropology; Juris Doctor degree in American Indian Law from University of Colorado School of Law; graduate of Kamehameha Schools
- Director, DLNR-SHPD Burial Sites Program for six years; drafted & promulgated first administrative rules for that program
- Consultant for Bishop Museum, Kamehameha Schools and Office of Hawaiian Affairs in his capacity as a cultural practitioner, researcher, and repatriation expert
- Assisted multiple Native Hawaiian-oriented nonprofits in achieving IRS §501(c)3 tax-exempt status, successfully applied for grants focusing on Hawaiian community capacity building, organizing and improvement including cultural and language practice; a project of double-hulled canoe voyaging with traditional navigation, and legal rights advocacy
- DHHL Acting Molokai District Supervisor from 2011 – 2016; provided services to Hawaiian homestead lessees, supervised operation of the Molokai Public Water System (700 customers) and was responsible for effective management of all DHHL trust resources on Molokai.

Nancy Muir McPherson

- Born in Northern California and raised on O'ahu from the age of ten; grounded in Lakota cultural traditions and language in childhood by her Unci (grandmother); descended from a maternal line of tribal members of the Standing Rock Sioux Tribe (Hunkpapha Lakota), Chief Gall's band; great-grandmother was a tribal historian
- Spent a summer at the Bishop Museum as a student intern assisting the Anthropology Department with the 1973 Statewide Inventory of Historic Resources
- Bachelor of Arts degree in Urban and Regional Planning and Economics; completed all coursework required for the Masters in Urban and Regional Planning at UH-DURP; has practiced as a professional planner in California and Hawai'i for 25 years
- Worked as a research assistant to Professor Luciano Minerbi at UH-DURP for two years studying coastal cultural and natural resources, mo'olelo and historic documentation of North Kohala for a research project funded by OHA. Conducted multiple interviews with Native Hawaiian informants from North Kohala.
- First County of Maui planner to be posted full time on Molokai; spent 6 years living in and providing planning services for the Molokai community; assisted the community in conducting a participatory mapping, oral history and GIS project of known cultural sites in Mana'e, Molokai

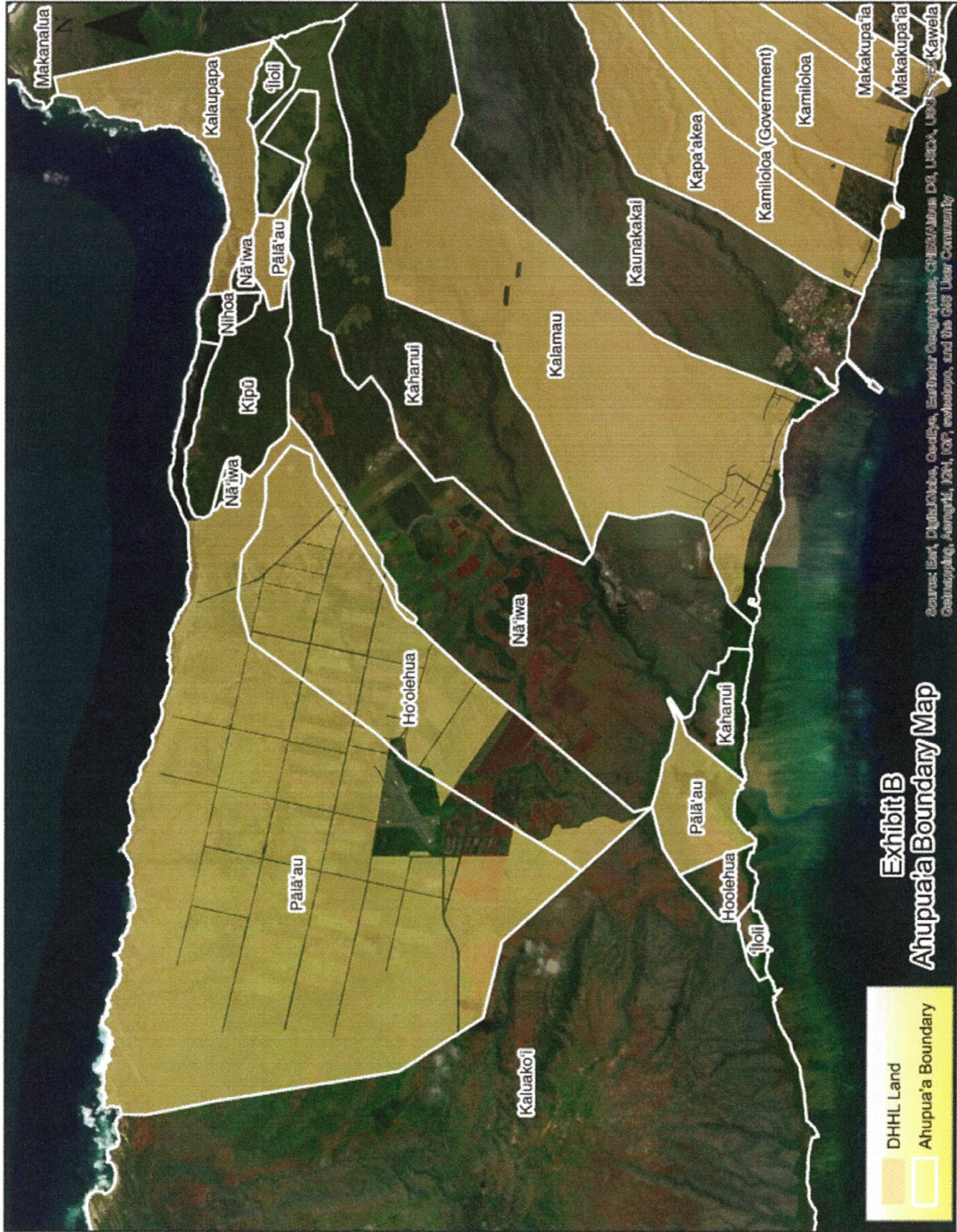


Exhibit B
Ahupua'a Boundary Map

Source: East, DigitalChloe, Geddy, Esri/Mapbox, OpenStreetMap contributors, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, IGP, swisstopo, and the City User Community

Kalama'ula - Area of Study

Molokai WUPA - Cultural Impact Assessment



Google Earth

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KALAMA'ULA HOMESTEADER INTERVIEWS
INTERVIEW QUESTIONS

Interviewee: _____ Date: _____

Interviewee affiliation: _____ Interview Location: _____

Interviewee residence address/homestead lot: _____

Type of stakeholder _____ Interviewer: _____

1. What is your and your 'ohana's relationship to this place?
 - a. Do you have 'ike you'd like to share of the area's history, mo'olelo or place names?
 - b. Why is the Kalama'ula area, particularly the coastline, important to you?
 - c. How do you use the shoreline, and when?
2. Based on your knowledge, what are the primary activities occurring along the shoreline? How many people? What time of day? Where are the users from?
3. Are you aware of any existing user conflicts along the shoreline?
4. Do you have a special use for any of the plants that grow along the shore?
5. Are most of the plants native or non-native?
6. How has the vegetation along the shore changed over time (for instance, trees instead of shrubs, or shrubs instead of grasses, or no vegetation at all)?
7. What changes have you observed along the entire coastline fronting the homestead area you reside in?

- a. Have the changes been slow and over time or dramatic?
 - b. What was the event or cause of the changes?
8. In your opinion, what are the three most important challenges or threats to the Kalama'ula shoreline at this time?

SHORELINE EROSION-SPECIFIC QUESTIONS

9. What time(s) of year are the waves destructive or erosive?
10. In what season have you observed loss of the shoreline? Do you feel that erosion is seasonal?
11. Was the erosion gradual over time, or fast such as after a destructive event?
12. Does the shoreline regularly change in width in any particular place?
13. Have you seen areas where the composition of the shore has changed? For instance, from sand to silt, or silt to pebbles, or sand to rocky?
14. What are the three most important challenges or threats that should be addressed by a shoreline erosion management plan?
15. Are there any specific actions (improvements and/or management activities) that you would like to see to prevent or mitigate shoreline erosion?
16. What actions do you not want to see taken?
17. Are there other people/organizations you think we should reach out to?
18. What other information could you share, based on your experience, that could be useful to DHHL and the people living in the Kalama'ula homestead area?

DAVID Y. IGE
GOVERNOR
STATE OF HAWAII

SHAN S. TSUTSUMI
LT. GOVERNOR
STATE OF HAWAII



FILE COPY

JOHIE M. K. MASAGATANI
CHAIRMAN
HAWAIIAN HOMES COMMISSION

WILLIAM J. AILA, JR.
DEPUTY TO THE CHAIRMAN

**STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS**

P. O. BOX 1879
HONOLULU, HAWAII 96808

May 20, 2016

Mr. Scott Glenn, Director
Office of Environmental Quality Control
State of Hawai'i - Department of Health
235 South Beretania Street, Room 702
Honolulu, Hawai'i 96813

Dear Mr. Glenn:

The Department of Hawaiian Home Lands (DHHL) hereby transmits the Final Environmental Assessment and Finding of No Significant Impact (FEA-FONSI) for the Ho'olehua Water System PWS 230 Improvements situated in portions of various TMK parcels, in the Kalama'ula and Ho'olehua Hawaiian Homestead Communities on the island of Moloka'i, for publication in the next available edition of the Environmental Notice.

The FEA-FONSI includes copies of comments and responses received during the 30-day public comment period on the draft environmental assessment and anticipated finding of no significant impact (DEA-AFNSI).

Enclosed is a completed OEQC Publication Form as a Word file, a hard copy of the FEA-FONSI, and a searchable Adobe Acrobat PDF file of the same. Simultaneous with this letter, we have submitted the summary of the action in a text file by electronic mail to your office.

Should there be any questions, please contact Jeffrey Fujimoto, Project Manager, Land Development Division, at (808) 620-9270.

Sincerely,

Jobie M.K. Masagatani, Chairman
Hawaiian Homes Commission

Enclosures:

- OEQC Publication Form (MS Word file on CD)
- FEA-FONSI (Adobe Acrobat PDF file on CD)
- FEA-FONSI (1 hard copy)

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