



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

COMMISSION ON WATER RESOURCE MANAGEMENT

September 16, 2015
Honolulu, Oahu

Kalea Properties LLC
APPLICATION FOR A WATER USE PERMIT
Kalea 2012 (Well No. 3-3308-003), TMK (1) 6-7-002:028, WUP No. 01002
New Agricultural Use of 0.029 mgd
Mokuleia Ground Water Management Area, Oahu

APPLICANT:

Kalea Properties LLC
6370 Hawaii Kai Dr., #64
Honolulu, HI 96825

LANDOWNER:

Kalea Properties LLC
6370 Hawaii Kai Dr., #64
Honolulu, HI 96825

SUMMARY OF REQUEST:

The applicant requests that the Commission on Water Resource Management (Commission) approve a water use permit for an allocation of **0.029** million gallons per day (mgd) of **potable basal** ground water from an **existing** well to supply **5 domestic dwellings and to irrigate 9 acres of tree crops (avocado, mango, cacao, and citrus)**.

LOCATION MAP: See Exhibit 1

BACKGROUND:

June 15, 2015 Kalea Properties LLC filed a completed water use permit application with the Commission on Water Resource Management (Commission). Additional information regarding the source, use, notification, objections, and field investigation(s) is provided in Attachment A.

August 5, 2015 The deadline for comments and objections following routine circulation for agency review and public notice.

ANALYSIS/ISSUES:

Section 174C-49(a) of the State Water Code establishes seven (7) criteria that must be met to obtain a water use permit. An analysis of the proposed permit in relation to these criteria follows:

(1) Water availability

Through the Hawaii Water Plan, the Commission has adopted **8** mgd as the sustainable yield for the Mokuleia Aquifer System Area. Individual existing water use permits in this aquifer system area are shown in Exhibit 2. Pending completed applications are shown in Exhibit 3. A summary of the current ground water conditions in the aquifer is provided in Table 1:

Table 1. Mokuleia Aquifer System Area

<u>ITEM</u>	Mokuleia Aquifer System Area (mgd)
Sustainable Yield	8
Less: Other Existing Water Use Permits (shown in Exhibit 2)	7.073
Reservation to DHHL	0
Subtotal (Current Available Allocation)	0.927
Less: Other Completed Applications (shown in Exhibit 3)	0.127
Less: This Application	0.029
Subtotal (Potential Available Allocation/Allocation Deficit)	0.771

Therefore, there is adequate water available to accommodate this application request, even with other pending applications.

(2) Reasonable-beneficial

Section 174C-3 HRS defines "reasonable-beneficial use" is

"...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".

I. Purpose of Use

The applicant is requesting the use of potable ground water to supply four homes and a barn with sanitary facilities, and to irrigate 9 acres of tree crops (avocado, mango, cacao, and citrus). The Declaration of Policy section, §174C-2(c) HRS, states that the Water Code shall be liberally interpreted to obtain maximum beneficial use of the waters of the State for various purposes including industrial and irrigation uses.

II. Quantity Justification

The applicant is requesting a total of **0.029** mgd for a multiple sprinkler system for orchard fruit trees at the rate of about 3,000 gallons per acre per day (gad). The topography is hilly former pasture land currently covered in scrub.

III. Efficiency of Use

The applicant has not offered details on any consultations, nor offered citations of research into the assumptions being applied.

The Commission uses the Irrigation Water Requirement Estimation Decision-Support System (*IWREDSS*) constructed by UH/CTAHR to provide a baseline comparison for this proposed agricultural effort. The model incorporates parcel-specific soils, rainfall, evapo-transpiration, irrigation methods and other parameters, excepting variable wind patterns, applied to a wide range of potential crops, using assumptions for commercial agriculture. The results indicated that a reasonable use given a number of factors is about 2,000 – 2,250 gad for the 1 in 5-year drought, or 80 percentile (See Exhibit 4). This range is given in lieu of having a more specific proportion of crops, indicating slight variation between chosen tree species.

IV. Analysis of Practical Alternatives

The applicant has identified **5** potential alternatives that are inapplicable to the proposed use of brackish caprock water. An analysis of each of the alternatives is as follows:

1. Municipal sources are unavailable
2. Wastewater reuse is unavailable
3. Ditch systems are unavailable
4. Desalting is too expensive
5. Surface water sources are insufficient

The 2000 Legislature amended the Water Code to include a new section, §174C-51.5 HRS that provides the Commission with the authority to require dual line (potable and non-potable) water supply systems in new industrial and commercial developments located in designated water management areas. In this case, the applicant does not have non-potable water service available and is proposing to install only a single potable system.

(3) Interference with other existing legal uses

There are 5 other wells within 1 mile of this source. One is used for domestic purposes, one is intended to irrigate 235 acres but is currently reporting use of about 15% of its permitted allocation. Two are observation wells and one is lost.

(4) Public interest

Public interest is defined under §174C-2 - Declaration of policy, as follows:

“(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.”

Therefore, this application meets the public interest.

(5) State & county general plans and land use designations

The proposed uses are in the State **Agriculture** District, and the county zoning is **Ag-2**. The proposed use is consistent with these land use designations.

Normal agency review includes:

- 1) the State’s Department of Land and Natural Resources (DLNR) and its State Parks, Aquatic Resources, Historic Preservation, and Land Divisions; the Department of Health (DOH) with its Clean Water, Safe Drinking Water, and Wastewater Branches; the Department of Hawaiian Home Lands (DHHL), and Land Use Commission (LUC); and the Office of Hawaiian Affairs (OHA).
- 2) the Office of the Mayor, Department of Planning and Permitting, and the Department/Board of Water Supply;

These proposed uses are consistent with the state and county general plans and land use designations. One comment was made by DHHL, discussed below.

This application meets the state & county general plans and land use designations.

(6) County land use plans and policies

Again normal County review includes Office of the Mayor, Department of Planning and Permitting, and the Department/Board of Water Supply. No comments or objections have been made.

Therefore, this application meets the county land use plans and policies.

(7) Interference with Hawaiian home lands rights

All permits are subject to the prior rights of Hawaiian home lands. The Department of Hawaiian Home Lands (DHHL) and the Office of Hawaiian Affairs have reviewed this application. Further, standard water use permit conditions 3.g., 6., and 9.f. notify all water use permittees that their permits are subject to and cannot interfere with Hawaiian home land rights.

The Department of Hawaiian Home Lands believes the application did not specifically identify DHHL needs (see Exhibit 5). Staff notes that the State Water Projects Plan identifies DHHL needs for the North Shore Aquifer Sector Area as “0”. DHHL states that most of O’ahu is an integrated island-wide water system – possibly referring to the Honolulu Board of Water Supply (HBWS), and to a supposition that DHHL may need to reserve water in areas where there are no Hawaiian home lands. The HBWS “island-wide system” does not include the North Shore of Oahu. DHHL has not requested a water reservation from the North (Oahu Sector) aquifer system areas.

Therefore, this application will not interfere with Hawaiian home lands rights at this time and standard conditions 3.g., 6. And 9.f. provide notice should circumstances change in the future.

(8) Other issues

I. Chapter 343 – Environmental Assessment (EA) Compliance

EA Triggers

In accordance with §HRS 343-5(a), the applicant’s proposed action does not trigger the need for an EA.

RECOMMENDATION:

Staff recommends that the Commission approve the issuance of Water Use Permit No. 01002 to Kalea Properties LLC for the reasonable and beneficial use of 0.029 million gallons per day of basal water from the Kalea 2012 Well (Well No. 3-3308-003), subject to the standard water use permit conditions listed in Attachment B and the following special conditions:

1. In the event that the tax map key at the location of the water use is changed, the permittee shall notify the Commission in writing of the tax map key change within thirty (30) days after the permittee receives notice of the tax map key change.

Respectfully submitted,




JEFFREY T. PEARSON, P.E.
Deputy Director

Attachment(s): A (Water Use Permit Detailed Information)
B (Water Use Permit Standard Conditions)

Exhibit(s): 1 (Location Map)
2 (Existing Water Use Permits and 12-Month Moving Average Withdrawal)
3 (Pending Water Use Permit Applications)
4 (IWREDDDS calculations)
5 (DHHL comments)

APPROVED FOR SUBMITTAL:



SUZANNE D. CASE
Chairperson

WATER USE PERMIT DETAILED INFORMATION

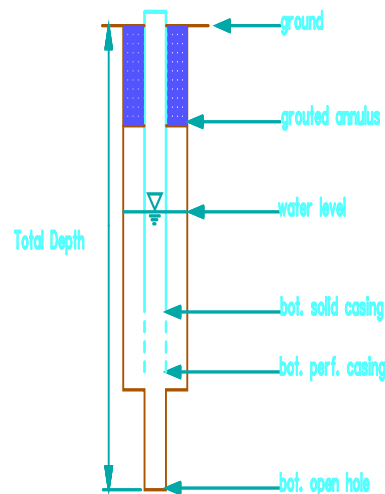
Source Information

AQUIFER: Mokuleia System, North Sector, Oahu
 Sustainable Yield: 8 mgd
 Existing Water Use Permits: 7.064 mgd
 Available Allocation: 0.936 mgd
 Total other pending applications: 0.136 mgd
 This application: 0.029 mgd

WELL: Kalea 2012 (Well No. 3-3308-003)
 Location: Mokuleia, Oahu, TMK: (1) 6-7-002:028
 Year Drilled: 2012
 Casing Diameter: 6 in.
Elevations (msl= 0 ft.)
 Water Level: 31 ft.
 Ground: 344 ft.
 Bottom of Solid Casing: -36 ft.
 Bottom of Perforated: -76 ft.
 Bottom of Open Hole: -76 ft.

 Total Depth: 420 ft.
 Grouted Annulus Depth: **240 ft.**

 Pump Capacity 21 gpm



Use Information

Quantity Requested:	0.029 gallons per day.
New Agricultural Water Use:	
Place of Water Use:	TMK: (1) 6-7-002:028
Reported Water Usage:	0.004 gpd
Nearby Similar Water Usage:	. gpd
Mokuleia Aquifer System	
Current 12-Month Moving Average Withdrawal (See Exhibit 2):	0.287 mgd

Nearby Surrounding Wells and Other Registered Ground Water Use

There are 5 other wells within a mile of the well (see Exhibit 1). Two of these wells are currently in use; two more are nominally observation wells; one is lost. Information from the registration program indicates there are possibly 30-40 existing wells in the Mokuleia Aquifer System. Total pumpage in Mokuleia is approximately 0.500 mgd.

Public Notice

In accordance with HAR §13-171-17, a public notice was published in the Honolulu Advertiser on 07/08/2015 and 07/08/2015 and a copy of the notice was sent to the Office of the Mayor. Copies of the completed application were sent to the Department/Board of Water Supply, Department of Land Utilization, Department of Health, Department of Hawaiian Home Lands, Office of Hawaiian Affairs, the various divisions within the Department of Land and Natural Resources, and other interested parties for comments. Written comments and objections to the proposed permit were to be submitted to the Commission by August 5, 2015.

Objections

The public notice specifies that an objector meet the following requirements: (1) state property or other interest in the matter; (2) set forth questions of procedure, fact, law, or policy, to which objections are taken; (3) state all grounds for objections to the proposed permits, (4) provide a copy of the objection letter(s) to the applicant, and (5) submit objections meeting the previous requirements to the Commission by **August 5, 2015**.

To the best of staff's knowledge there are no objectors who have property interest within the Mokuleia Aquifer System or who will be directly and immediately affected by the proposed water use.

Briefs in Support

Responses to objections, or briefs in support, regarding the application are required to be filed with the Commission ten (10) days after an objection is filed and, presumably, copies are served to the applicant. No briefs in support were filed with the Commission.

STANDARD WATER USE PERMIT CONDITIONS

1. The water described in this water use permit may only be taken from the location described and used for the reasonable beneficial use described at the location described above. Reasonable beneficial uses means "the use of water in such a quantity as is necessary for economic and efficient utilization which is both reasonable and consistent with State and County land use plans and the public interest." (HRS § 174C-3)
2. The right to use ground water is a shared use right.
3. The water use must at all times meet the requirements set forth in HRS § 174C-49(a), which means that it:
 - a. Can be accommodated with the available water source;
 - b. Is a reasonable-beneficial use as defined in HRS § 174C-3;
 - c. Will not interfere with any existing legal use of water;
 - d. Is consistent with the public interest;
 - e. Is consistent with State and County general plans and land use designations;
 - f. Is consistent with County land use plans and policies; and
 - g. Will not interfere with the rights of the Department of Hawaiian Home Lands as provided in section 221 of the Hawaiian Homes Commission Act and HRS § 174C-101(a).
4. The ground water use here must not interfere with surface or other ground water rights or reservations.
5. The ground water use here must not interfere with interim or permanent instream flow standards. If it does, then:
 - a. A separate water use permit for surface water must be obtained in the case an area is also designated as a surface water management area;
 - b. The interim or permanent instream flow standard, as applicable, must be amended.
6. The water use authorized here is subject to the requirements of the Hawaiian Homes Commission Act, as amended, if applicable.
7. The water use permit application and submittal, as amended, approved by the Commission at its September 16, 2015 meeting are incorporated into this permit by reference.
8. Any modification of the permit terms, conditions, or uses may only be made with the express written consent of the Commission.
9. This permit may be modified by the Commission and the amount of water initially granted to the permittee may be reduced if the Commission determines it is necessary to:
 - a. protect the water sources (quantity or quality);

- b. meet other legal obligations including other correlative rights;
- c. insure adequate conservation measures;
- d. require efficiency of water uses;
- e. reserve water for future uses, provided that all legal existing uses of water as of June, 1987 shall be protected;
- f. meet legal obligations to the Department of Hawaiian Home Lands, if applicable; or
- g. carry out such other necessary and proper exercise of the State's and the Commission's police powers under law as may be required.

Prior to any reduction, the Commission shall give notice of its proposed action to the permittee and provide the permittee an opportunity to be heard.

10. An approved flowmeter needs to be installed to measure monthly withdrawals and a monthly record of withdrawals, salinity, temperature, and pumping times must be kept and reported to the Commission on Water Resource Management on forms provided by the Commission on a monthly basis (attached).
11. This permit shall be subject to the Commission's periodic review of the Mokuleia Aquifer System Area's sustainable yield. The amount of water authorized by this permit may be reduced by the Commission if the sustainable yield of the Mokuleia Aquifer System Area, or relevant modified aquifer(s), is reduced.
12. A permit may be transferred, in whole or in part, from the permittee to another, if:
 - a. The conditions of use of the permit, including, but not limited to, place, quantity, and purpose of the use, remain the same; and
 - b. The Commission is informed of the transfer within ninety days.

Failure to inform the department of the transfer invalidates the transfer and constitutes a ground for revocation of the permit. A transfer which involves a change in any condition of the permit, including a change in use covered in HRS § 174C-57, is also invalid and constitutes a ground for revocation.
13. The use(s) authorized by law and by this permit do not constitute ownership rights.
14. The permittee shall request modification of the permit as necessary to comply with all applicable laws, rules, and ordinances which will affect the permittee's water use.
15. The permittee understands that under HRS § 174C-58(4), that partial or total nonuse, for reasons other than conservation, of the water allowed by this permit for a period of four (4) continuous years or more may result in a permanent revocation as to the amount of water not in use. The Commission and the permittee may enter into a written agreement that, for reasons satisfactory to the Commission, any period of nonuse may not apply towards the four-year period. Any period of nonuse which is caused by a declaration of water shortage pursuant to section HRS § 174C-62 shall not apply towards the four-year period of forfeiture.

16. The permittee shall prepare and submit a water shortage plan within 30 days of the issuance of this permit as required by HAR § 13-171-42(c). The permittee's water shortage plan shall identify what the permittee is willing to do should the Commission declare a water shortage in the Mokuleia Ground Water Management Area.
17. The water use permit shall be subject to the Commission's establishment of instream standards and policies relating to the Stream Protection and Management (SPAM) program, as well as legislative mandates to protect stream resources.
18. Special conditions in the attached cover transmittal letter are incorporated herein by reference.
19. The permittee understands that any willful violation of any of the above conditions or any provisions of HRS § 174C or HAR § 13-171 may result in the suspension or revocation of this permit.

Commission on Water Resource Management **Water Use Permit**
Hawaiian Management System


Report Parameters	
Island:	Oahu
Applicant or Source Landowner:	All
Well # Prefix:	All
Date:	All
Aquifer:	30401 Mokuleia
TMK:	All
Aquifer Type:	All
Water Quality:	All
Net:	None
Proposed Use:	All

WUP = Water Use Permit, 12-MAV = 12 month moving average, Diff = WUP-12-MAV, mgd = million gallons per day

Island of Oahu

Aquifer System Ground Water Management Area: 30401 Mokuleia

WUP No	Approved	Permittee	Well No	Well Name	WUP (mgd)	12-MAV (mgd)	Diff (mgd)	Date Last Reported
38	09/11/1981	United States Air Force	3-3314-003	USAF Kaena Point	0.018	0.000	0.018	08/19/2015
49	06/02/1993	Waialua Sugar Company, Inc.	3-3409-013	Pump 11	0.530			07/31/2015
52	06/02/1993	Waialua Sugar Company, Inc.	3-3411-004	Pump 5	2.650			05/28/2015
			3-3411-006	Pump 5				08/05/2015
			3-3411-007	Pump 5				04/30/2015
			3-3411-008	Pump 5				04/30/2015
			3-3411-009	Pump 5				04/30/2015
			3-3411-010	Pump 5				04/30/2015
			3-3411-011	Pump 5				04/30/2015
53	09/11/1981	Directorate of Public Works, Environmental Div., DPW, U.S. Army Garrison	3-3411-013	Pump 5	0.055	0.126	-0.071	04/30/2015
			3-3412-002	Dillingham Airfield				07/06/2015
446	10/23/1996	Mokuleia Aquafarm	3-3409-024	MAF 1	0.250			
606	01/30/2002	C&C DOE	3-3407-025	Waialua HS	0.039	0.004	0.035	06/30/2015
669	02/18/2004	Hawaii Fish Company Inc	3-3412-004	Hawaii Fish Co. 1	0.576	0.003	0.573	07/31/2015
679	01/13/2004	KAALA RANCH	3-3309-002	Mokuleia	0.127	0.011	0.116	08/12/2015
766	07/12/2006	Mark Hamamoto (Mohala Farms)	3-3306-016	Hamamoto 2006	0.013	0.002	0.011	04/30/2015
777	12/14/1988	Dillingham Ranch Aina LLC	3-3310-002	Mokuleia 2	0.850	0.000	0.850	08/31/2015
779	09/11/1981	Dillingham Ranch Aina LLC	3-3410-003	Shop Well	1.500	0.054	1.446	08/31/2015
813	09/11/1981	North Shore Water Company, LLC	3-3410-001	Crowbar Ranch	0.500	0.098	0.402	07/30/2015
941	09/17/2003	Stanhope Farms	3-3308-002	Stanhope Farms	0.056	0.008	0.048	07/15/2015
984	08/11/2015	Kealia Farms	3-3412-006	Kealia Farms	0.009			07/22/2015
<i>Summary for contact in Mokuleia (21 detail records)</i>					Total:	7.073	0.306	6.767

 **Commission on Water Resource Management**
Water Resource Management Division

Pending Water Use Applications

WUPA No	Well No.	Applicant	Well Name	mgd	Received	Accept
Aquifer System: 30401 Mokuleia						
1,003	3-3410-001	North Shore Water Company, LLC	Crowbar Ranch	1.709	07/02/2015	
1,003	3-3410-003	North Shore Water Company, LLC	Shop Well		07/02/2015	
1,004		North Shore Water Company, LLC	Well 1	1.300	07/02/2015	
1,004		North Shore Water Company, LLC	Well 2		07/02/2015	
1,007		G Tree Ranch LLC	TBD	0.183	08/15/2015	
1,007	3-3307-019	G Tree Ranch LLC	Waialua-Mauka		08/15/2015	
1,007	3-3307-026	G Tree Ranch LLC	Paty		08/15/2015	
999	3-3208-001	Candace Chase	Chase	0.127	05/08/2015	06/12/2015
1,002	3-3308-003	Kalea Properties LLC	Kalea 2012	0.029	08/15/2015	08/15/2015
				5 WUPAs totalling 3.348		

Number of Wells: 9

Exhibit 3