



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

STAFF SUBMITTAL

for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

July 21, 2020
Honolulu, Hawai'i

Maja Holdings, LLC
APPLICATIONS FOR A GROUND WATER USE,
WELL CONSTRUCTION & PUMP INSTALLATION PERMITS
Maja 2019 (Well No. 3409-025), TMK (1) 6-8-004:001, WUP No. 01092
New Irrigation Use for 0.004 mgd
Mokulē'ia Ground Water Management Area, Oahu

APPLICANT:

Maja Holdings, LLC
P.O. Box 2196
Honolulu, HI 96805

LANDOWNER:

Maja Holdings, LLC
P.O. Box 2196
Honolulu, HI 96805

SUMMARY OF REQUEST:

The applicant requests that the Commission approve a ground water use permit for an allocation of **3,780** gallons per day (mgd) of potable basal ground water from a new well to irrigate **1.26 acres of trees** (mostly coconut, plus banana, monkeypod, plumeria, kukui, kamani, kou, autograph; plans to plant citrus).

LOCATION MAP: See Exhibit 1

BACKGROUND:

On October 15, 2019, a completed ground water use permit application was received from Maja Holdings, LLC by the Commission on Water Resource Management (Commission). Additional information regarding the source, use, notification, objections, and field investigation(s) is provided in Exhibit 2.

Public Notice was published May 18 and 25, 2020, with comment/objection deadline of June 8, 2020. No objections have been filed.

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 Hawai'i Water Plan, the Commission has adopted 17 mgd as the sustainable yield for the **Mokulē'ia** Aquifer System Area. A summary of the current ground water conditions in the aquifer is provided in Table 1:

Table 1. Mokulē'ia Aquifer System Area

<u>ITEM</u>	Mokulē'ia Aquifer System Area (mgd)
Sustainable Yield	17
Less: Other Existing Water Use Permits (shown in Exhibit 4)	7.759
Reservation to DHHL	0
Subtotal (Current Available Allocation)	9.241
Less: Other Completed Applications (shown in Exhibit 5)	0.454
Less: This Application	0.004
Subtotal (Potential Available Allocation/Allocation Deficit)	8.783

Therefore, there is adequate water available to accommodate this application request.

(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 irrigate 1.26 acres of trees – coconut, banana, plumeria, monkeypod, kukui, kamani, kou, autograph. 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 irrigation uses.

II. Quantity Justification

The applicant is requesting a total of **0.004** mgd for (refer to Exhibit 6 for IWREDDDS calculations) (refer to Exhibit 7 for total use request summary). The Honolulu Board of Water Supply commented that they had delivered >4,000 gpd for the past 10 years to this parcel.

III. Efficiency of Use

The applicant states that its operations are as water efficient as possible by using trickle drip and sprinklers using deficit irrigation and monitoring use and checking for leaks. The IWREDDDS used drip irrigation in its calculations.

IV. Analysis of Practical Alternatives

The applicant has ruled out five (5) potential alternatives to the proposed use of fresh caprock water. A review of each of the alternatives is as follows:

1. Municipal – the applicant declares he does not wish to use precious drinking water for irrigation needs; municipal service currently being used, applicant wants to be self-sufficient.
2. Waste water – no wastewater option is available.
3. Ditch Water – no ditches are available.
4. Stream flow – no stream flow in the neighborhood.
5. Desalting – desalting would be cost-prohibitive.

The Commission has 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, this is an individual applicant with potable water service but is proposing to install a ground water irrigation system to save drinking water. Therefore, this provision does not need to be invoked.

(3) Interference with other existing legal uses

Impacts from wells are generally unobservable beyond a 1-mile radius of the well as tidal and barometric impacts are greater in magnitude. The well is so close to the shoreline that the cone of depression will stop far before it can impact other adjacent wells. There are 32 wells of which 28 are abandoned wells and 4 active within 1-mile of this source. One well is listed for irrigation, but a recent field check indicated no current use and is unused; one is an observation well; two others are unused.

(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."

Due to its proximity adjacent to the shoreline, on developed property, and due to the proposed withdrawing of water from below the sedimentary cap over the basal aquifer, impacts will be contained on the property. The positive impact is intended to be an enhanced property. Should alternative sources become available, the Commission reserves the responsibility to require them.

Therefore, staff believes this application meets the public interest.

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

The proposed uses are in the State Urban District, and the county zoning is R-7.5. The parcel has over an acre of open space with many trees needing irrigation. Therefore, 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 (DDHL), 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 Honolulu Department of Water Supply.

The Division of Aquatics had no comment.

The Honolulu Board of Water Supply (HBWS) commented that this property has been served by HBWS for more than 10 years and can continue to do so, and that the use does not seem to be agricultural; the question was raised that ground water quality so near the ocean might not be acceptable for irrigation; staff notes that the well is proposed to tap basal ground water below the caprock. No other comments on this subject were received.

Therefore, staff believes 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 Honolulu Department 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 and made no comments or objections. 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.

There are no Hawaiian home lands in this area, and no water reservations, although DHHL reserves the ability to alter this situation to meet the foreseeable needs of its beneficiaries.

Therefore, staff believes this application will not interfere with Hawaiian Home Lands rights.

(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.

II. Traditional and Customary Practices

The OHA Kipuka database shows no sites or crown lands involved; there are no comments from OHA. No sites were identified by the DLNR – State Historic Preservation Division. Aha Moku did not review. There were no other comments from the public.

RECOMMENDATION:

That the Commission:

1. Approve the issuance of Water Use Permit No. 01092 to Maja Holdings, LLC for the reasonable and beneficial use of 0.004 million gallons per day of fresh water for tree irrigation from the Maja 2019 Well (Well No. 3409-025), subject to the standard water use permit conditions listed in Exhibit 8 and the following special conditions:
 - a. This permit is invalid if the use as described in Exhibit 7 changes. This includes, but is not limited to: type of use, location of use, land use classification changes, or anything that varies from the application.
 - b. Should an alternate permanent source of water be found for this use, then the Commission reserves the right to revoke this permit, after a hearing.
 - c. 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.

2. Approve a well construction permit for Maja 2019 (Well No. 3409-025), subject to the standard well construction permit conditions as described in Exhibit 9. A variance is administratively approved for additional depth and use of PVC casing, drilling beneath caprock to the confined basal aquifer.
3. Approve a pump installation permit for Maja 2019 (Well No. 3409-025), subject to the standard pump installation permit conditions as described in Exhibit 10.

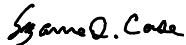
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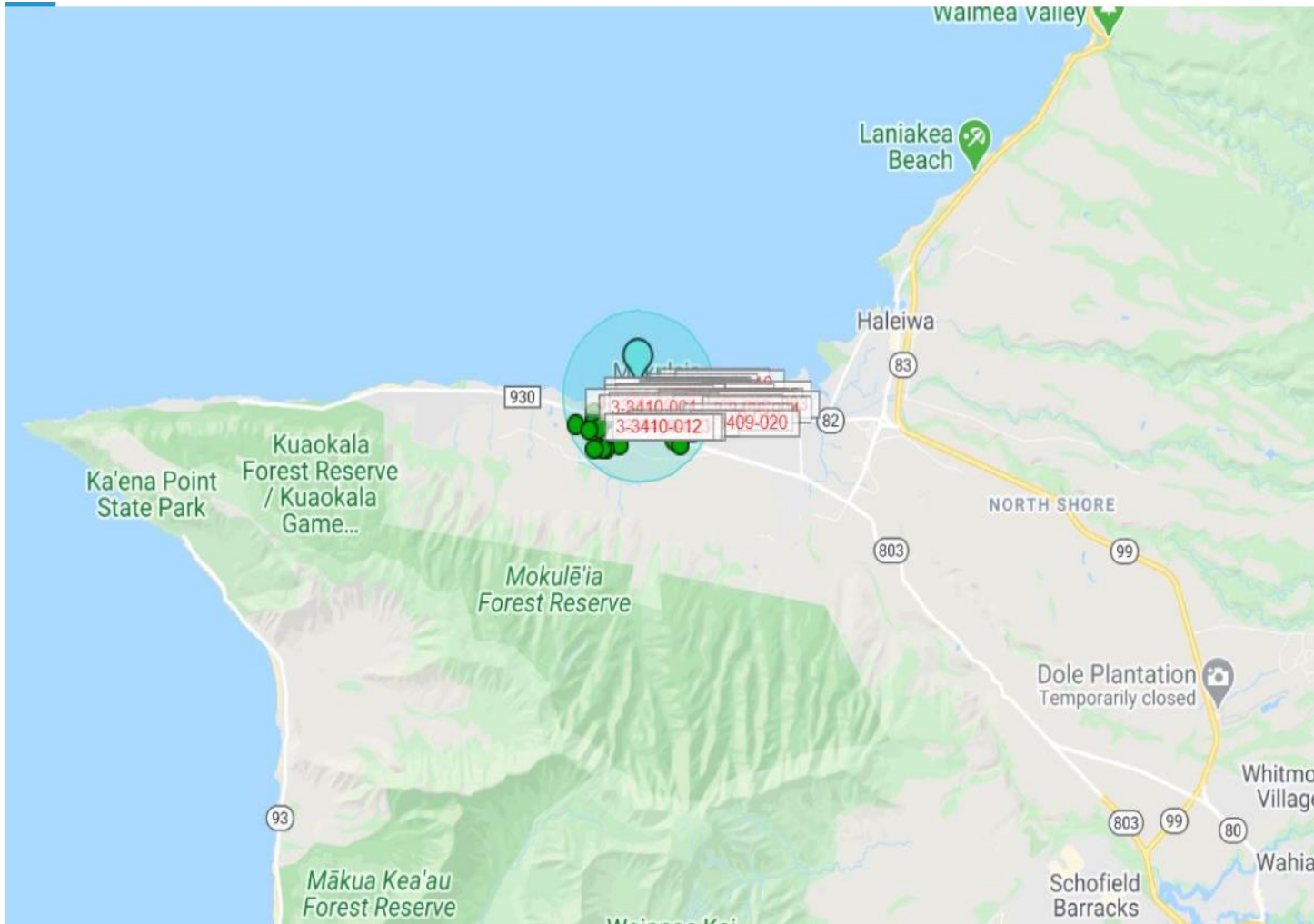
M. KALEO MANUEL
Deputy Director

- Exhibits:
- 1 (Location Maps)
 - 2 (Water Use Permit Detailed Information)
 - 3 (Public Notice)
 - 4 (Existing and Pending Water Use Permits, 12-Month Moving Average Withdrawal)
 - 5 (Pending ground water use permit applications in aquifer system area)
 - 6 (IWREDSS calculations)
 - 7 (Summary of water use request)
 - 8 (Water Use Permit Standard Conditions)
 - 9 (Well Construction Permit Standard Conditions)
 - 10 (Pump Installation Permit Standard Conditions)

APPROVED FOR SUBMITTAL:



SUZANNE D. CASE
Chairperson



1-mile Radius on O'ahu North Shore

Exhibit 1 - Location Maps

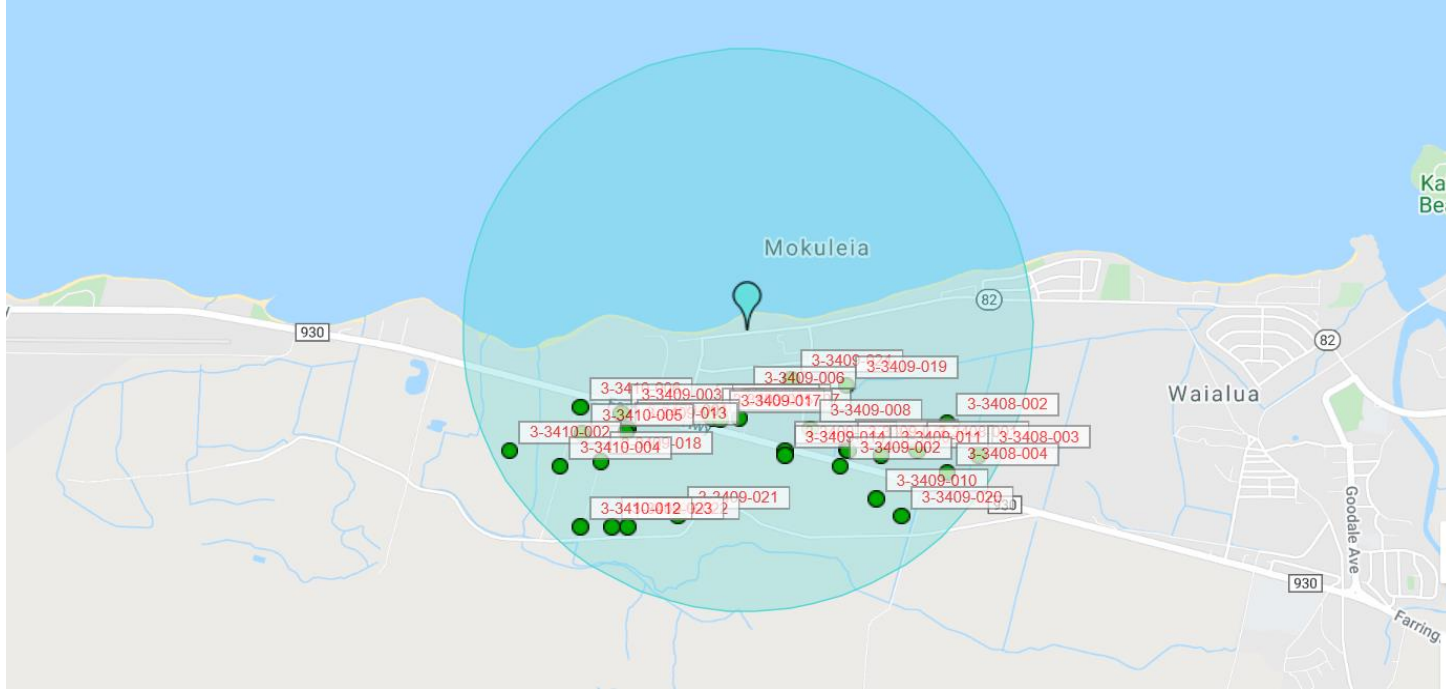


Exhibit 1 - Location Maps – 1-mile Radius

33 matching results found. Sort By: Well Number

Well Number	Aquifer System	Well Name	Well Owner/Operator	Water Use Recorder	Land Owner	TMC	Use	Year Drilled	Last 12-MAY	Last Reported Date	Distance (miles)
3-3408-001	30401 Mokuleia	Mokuleia	J. Mendonca				ABNSLD	1890			0.75
3-3408-002	30401 Mokuleia	Mokuleia	Waialua Sugar Company, Inc.				ABNSLD	1890			0.79
3-3408-003	30401 Mokuleia	Mokuleia	Waialua Sugar Company, Inc.				ABNSLD	1890	0.181	12/31/1939	0.94
3-3408-004	30401 Mokuleia	Mokuleia	Waialua Sugar Company, Inc.				ABNSLD	1890			0.88
3-3409-001	30401 Mokuleia	Mokuleia Battery	Pioneer Hi-Bred International, Inc.		Pioneer Hi-Bred International, Inc.	(1) 6-8-003:043	ABNSLD		0.000	6/30/1996	0.57
3-3409-002	30401 Mokuleia	Mokuleia	J. Mendonca				ABNSLD	1887			0.61
3-3409-003	30401 Mokuleia	Mokuleia	Waialua Sugar Company, Inc.				ABNSLD	1890			0.54
3-3409-004	30401 Mokuleia	Mokuleia	Waialua Sugar Company, Inc.				ABNSLD	1890			0.35
3-3409-005	30401 Mokuleia	Mokuleia	Josephine K Williams TR			(1) 6-8-013:059	ABNSLD	1890			0.34
3-3409-006	30401 Mokuleia	Mokuleia	J. Mendonca				ABNSLD	1890			0.27
3-3409-007	30401 Mokuleia	Mokuleia	J. Mendonca				ABNSLD	1890			0.34
3-3409-008	30401 Mokuleia	Mokuleia	Waialua Sugar Company, Inc.				ABNSLD	1890			0.44
3-3409-009	30401 Mokuleia	Mokuleia	Mahiko Farms, LLC	David Taogoshi (Mahiko Farms, LLC)	Mahko Farms, LLC	(1) 6-8-006:010	ABN	1890	0.000	12/15/2017	0.57
3-3409-010	30401 Mokuleia	Mokuleia	Waialua Sugar Company, Inc.				ABNSLD	1890			0.78
3-3409-011	30401 Mokuleia	Mokuleia	Waialua Sugar Company, Inc.				ABNSLD	1890			0.67
3-3409-012	30401 Mokuleia	Mokuleia	J. Mendonca				ABNSLD	1899			0.48
3-3409-013	30401 Mokuleia	Pump 11	Pioneer Hi-Bred International, Inc.	Waialua Sugar Company, Inc.	Pioneer Hi-Bred International, Inc.	(1) 6-8-003:043	ABNSLD	1913	0.000	2/28/2019	0.58
3-3409-014	30401 Mokuleia	Mokuleia	Waialua Sugar Company, Inc.				ABNSLD	1917			0.49
3-3409-015	30401 Mokuleia	Mokuleia	Josephine K Williams TR	Josephine Williams (Josephine K Williams TR)	Josephine K Williams TR	(1) 6-8-013:059	UNU	1918	0.000	12/31/2015	0.36
3-3409-016	30401 Mokuleia	Mokuleia	Mahiko Farms, LLC	Robert Chenet (Commission on Water Resource Management, CWRM)	Mahko Farms, LLC	(1) 6-8-006:010	OBS	1924	0.000	2/29/2016	0.58
3-3409-017	30401 Mokuleia	Mokuleia-Miyake	Kathleen R Miyake & Coleen H Mau	Coleen Mau	Kathleen R Miyake & Coleen H Mau	(1) 6-8-013:060	AGRCP	1937	0.000	4/30/2020	0.36
3-3409-018	30401 Mokuleia	Mokuleia	Pacific Islands Water Science Center, USGS, U.S. Geological Survey			(1) 6-8-006:020	ABNLOS	1962			0.71
3-3409-019	30401 Mokuleia	Mokuleia	Pacific Islands Water Science Center, USGS, U.S. Geological Survey			(1) 6-8-006:010	ABNLOS	1962			0.42
3-3409-020	30401 Mokuleia	Mokuleia	Pacific Islands Water Science Center, USGS, U.S. Geological Survey			(1) 6-8-007:002	ABNLOS	1962			0.88
3-3409-021	30401 Mokuleia	Mokuleia	Pacific Islands Water Science Center, USGS, U.S. Geological Survey			(1) 6-8-007:002	ABNLOS	1962			0.73
3-3409-022	30401 Mokuleia	Mokuleia	Pacific Islands Water Science Center, USGS, U.S. Geological Survey			(1) 6-8-003:020	ABNLOS	1962			0.84
3-3409-023	30401 Mokuleia	Mokuleia	Pacific Islands Water Science Center, USGS, U.S. Geological Survey			(1) 6-8-003:020	ABNLOS	1962			0.87
3-3409-024	30401 Mokuleia	MAF 1	Mokuleia Aquafarm		Jeffrey A & Linda A Koch	(1) 6-8-013:044	UNU	2000			0.26
3-3410-002	30401 Mokuleia	Mokuleia	Mokuleia Land Co.				ABNSLD				0.95
3-3410-004	30401 Mokuleia	Mokuleia	Mokuleia Homesteads				ABNSLD	1946			0.83
3-3410-005	30401 Mokuleia	Mokuleia	Mokuleia Homesteads		Dillingham Ranch Aina LLC	(1) 6-8-003:040	ABNSLD			11/30/2015	0.70
3-3410-006	30401 Mokuleia	Mokuleia	Waialua Sugar Company, Inc.				ABNSLD				0.65
3-3410-012	30401 Mokuleia	Mokuleia	Pacific Islands Water Science Center, USGS, U.S. Geological Survey			(1) 6-8-003:004	ABNLOS	1962			0.93

Wells within 1-mile Radius



Exhibit 1 - Location Maps

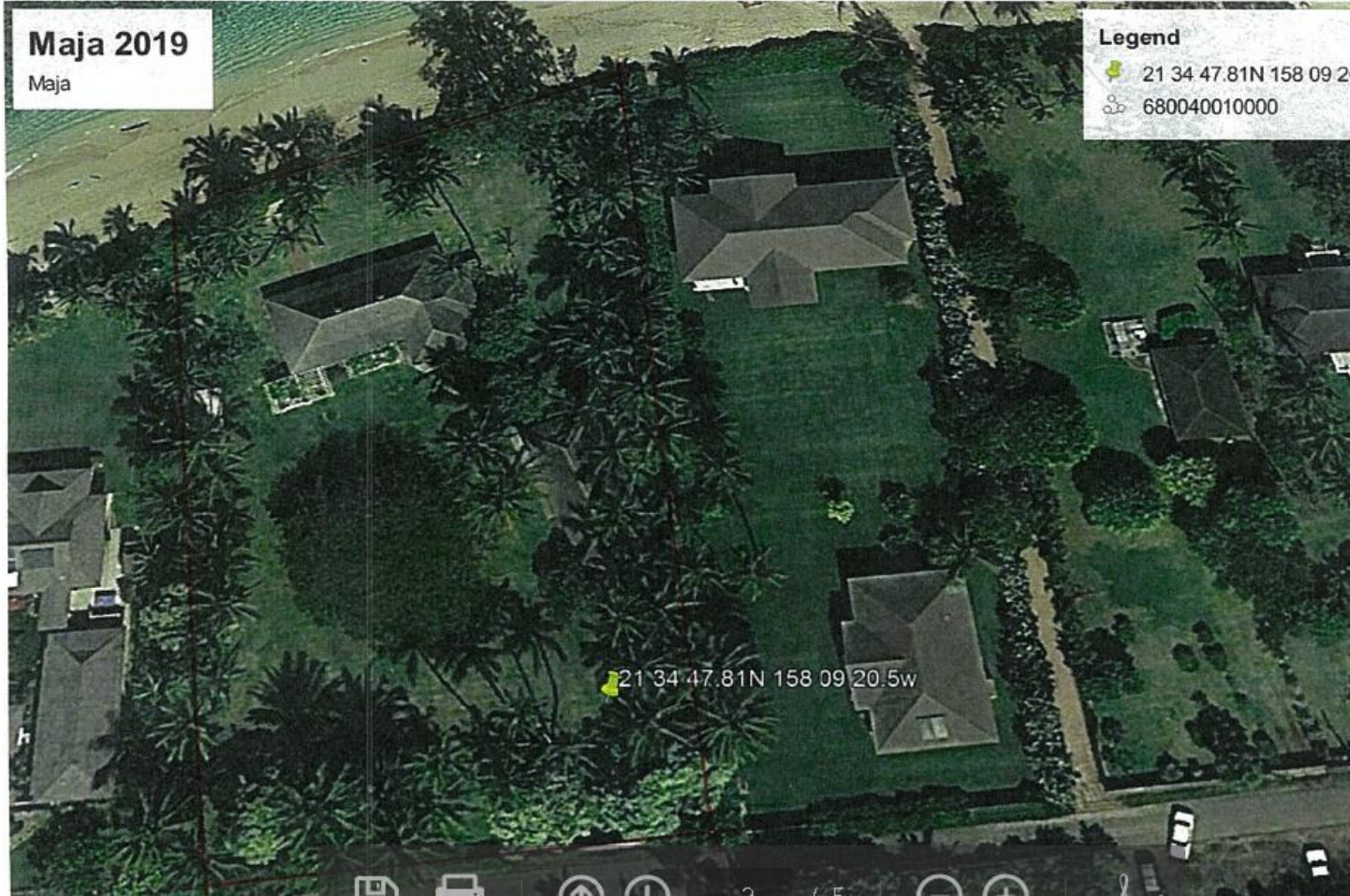


Exhibit 1 - Location Maps



Exhibit 1 - Location Maps

WATER USE PERMIT DETAILED INFORMATION

Source Information

AQUIFER:	Mokulē'ia System, North Sector, Oahu
Sustainable Yield:	17 mgd
Existing Water Use Permits:	7.759 mgd
Available Allocation:	9.241 mgd
Total other pending applications:	0.454 mgd
This application:	0.004 mgd

WELL:	Maja 2019 (Well No. 3409-025)
Location:	Mokulē'ia, Oahu, TMK: (1) 6-8-004:001
Year Drilled:	
Casing Diameter:	6 in.
<u>Elevations</u> (msl= 0 ft.)	
Water Level:	10 ft.
Ground:	3 ft.
Bottom of Solid Casing:	410 ft.
Bottom of Perforated:	450 ft.
Bottom of Open Hole:	none ft.
Total Depth:	450 ft.
Grouted Annulus Depth:	300 ft.
Pump Capacity	20 gpm

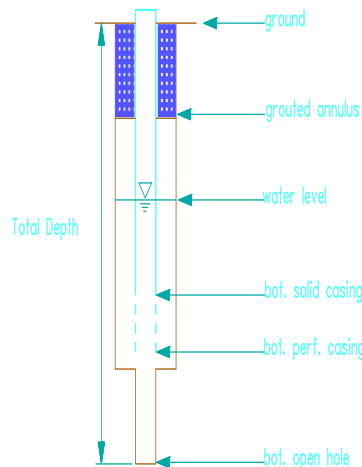


Exhibit 2 - Water Use Permit Detailed Information

Use Information

Quantity Requested:	0.004 gallons per day.
Existing Type of Water Use:	tree irrigation
Place of Water Use:	TMK: (1) 6-8-004:001
Reported Water Usage:	gpd
Nearby Similar Water Usage:	0.000 gpd
Mokulē'ia Aquifer System	
Current 12-Month Moving Average Withdrawal (See Exhibit 2):	0.536 mgd

Nearby Surrounding Wells and Other Registered Ground Water Use

There are 33 other wells within a mile of the well (see Exhibit 1). None of these wells are currently withdrawing water. Several of these wells have been recently field checked but some of the declarants, have not been completely field verified. Several are not in use or are rights claims.

Public Notice

In accordance with HAR §13-171-17, a public notice was published in the Honolulu Advertiser on 05/18/2020 and 05/25/2020 and a copy of the notice was sent to the Office of the Mayor. Copies of the completed application were sent to the Honolulu Department Board of Water Supply, Department of Planning and Permitting, 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 June 8, 2020.

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 June 8, 2020.

To the best of staff's knowledge there are no objectors who have property interest within the Mokulē'ia Aquifer System or who will be directly and immediately affected by the proposed water use. They are 1).

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.

Exhibit 2 - Water Use Permit Detailed Information

PUBLIC NOTICE

**Application for Water Use Permit
Mokuleia Ground Water Management Area, Oahu**

The Commission on Water Resource Management received the following water use permit application. Public Notice is given pursuant to Hawaii Administrative Rules, Section 13-171, "Designation and Regulation of Water Management Areas."

WUPA No. 01092 Maja 2019 Well (Well No. 3409-025)

Applicant: Maja Holdings, LLC
P.O. Box 2196
Honolulu, HI 96805

Landowner: Maja Holdings, LLC
P.O. Box 2196
Honolulu, HI 96805

Date Application Filed as Complete: December 6, 2019

Hydrologic Unit / Aquifer System Area: Mokuleia System, North Sector, Oahu

Water Source: Maja 2019 Well (Well No. 3409-025), Tax Map Key (1) 6-8-004:001

Quantity Requested: 0.004 million gallons per day

Existing/New Use: 1.3 acres landscape tree irrigation

Place of Water Use: at Tax Map Key: (1) 6-8-004:001

Written objections or comments on this application may be filed by any person who has property interest in any land within the hydrologic unit of the source of water supply, any person who will be directly and immediately affected by the proposed water use, or any other interested person. Written objections must (1) state the property or other interest in the matter (provide TMK information); (2) set forth questions of procedure, fact, law, or policy, to which objections are taken; and (3) state all grounds for objections to the proposed permit. Written objections must be received by June 8, 2020. Objections must be sent to 1) the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809 and 2) the applicant at the above address.

COMMISSION ON WATER RESOURCE MANAGEMENT



M. KALEO MANUEL, Deputy Director for
SUZANNE D. CASE, Chairperson

Dated: May 12, 2020

Publish in: Honolulu Star Advertiser issues of May 18, 2020 and May 25, 2020

Island of Oahu

Aquifer System Ground Water Management Area: 30401 Mokuleia

Sustainable Yield (mgd): 17

Wup No	Approved	Permittee	Well No	Well Name	WUP (mgd)	12-MAV (mgd)	Diff (mgd)	Date Last Reported
00038	09/11/1981	United States Air Force	3-3314-003	USAF Kaena Point	0.018	0.000	0.018	04/30/2020
00052	06/02/1993	Waialua Sugar Company, Inc.	3-3411-004	Pump 5	2.550	0.000	2.541	05/04/2020
			3-3411-006	Pump 5		0.009		04/30/2020
			3-3411-007	Pump 5		0.000		05/04/2020
			3-3411-008	Pump 5		0.000		05/04/2020
			3-3411-009	Pump 5		0.000		05/04/2020
			3-3411-010	Pump 5		0.000		05/04/2020
			3-3411-011	Pump 5		0.000		05/04/2020
			3-3411-013	Pump 5		0.000		05/04/2020
00053	09/11/1981	Directorate of Public Works, Environmental Division, DPW, U.S. Army Garrison	3-3412-002	Dillingham Airfield	0.055	0.129	-0.074	02/28/2020
00669	02/18/2004	Hawaii Fish Company Inc	3-3412-004	Hawaii Fish Co. 1	0.576	0.004	0.572	04/30/2020
00679	01/13/2004	KAALA RANCH	3-3309-002	Mokuleia	0.127	0.004	0.123	05/03/2020
00766	07/12/2006	Mark Hamamoto (Mohala Farms)	3-3306-016	Hamamoto 2006	0.013	0.001	0.012	03/31/2020
00777	12/14/1988	Dillingham Ranch Aina LLC	3-3310-002	Mokuleia 2	0.850	0.000	0.850	01/02/2020
00779	09/11/1981	Dillingham Ranch Aina LLC	3-3410-003	Shop Well	1.500	0.068	1.432	01/02/2020
00813	09/11/1981	North Shore Water Company, LLC	3-3410-001	Crowbar Ranch	0.500	0.141	0.359	03/31/2020
00941	09/17/2003	Stanhope Farms	3-3308-002	Stanhope Farms	0.056	0.088	-0.032	04/27/2020
00984	08/11/2015	Kealia Farms	3-3412-006	Kealia Farms	0.009	0.000	0.009	01/10/2020
00999	09/16/2015	Candace Chase	3-3208-001	Chase	0.068	0.000	0.068	04/30/2020
01002	09/16/2015	Kalea Properties LLC	3-3308-003	Kalea 2012	0.029	0.000	0.029	01/03/2020
01010	01/28/2016	G Tree Ranch, LLC	3-3308-007	G Tree	0.066	0.000	0.066	03/31/2020
01011	01/28/2016	G Tree Ranch, LLC	3-3307-026	Paty	0.130	0.000	0.130	01/31/2020
01012	01/28/2016	G Tree Ranch, LLC	3-3307-019	Waialua-Mauka	0.081	0.001	0.080	04/06/2020
01013	01/28/2016	Ka'ala Ranch LLC	3-3307-030	Pietsch	0.462	0.003	0.459	05/07/2020
01044	07/10/2018	Pioneer Hi-Bred International, Inc.	3-3307-031	Gay and Ranch Exploratory	0.530	0.088	0.442	10/31/2019
01086	07/16/2019	Frank Hinshaw	3-3410-014	Hinshaw	0.081			
01091	09/17/2019	Mokuleia Ag Lands LLC	3411-016	4Rs	0.058			

Summary for Mokuleia (27 detail records)

Total: 7.759 0.536 7.223

SY Available: 9.241

Exhibit 4 - Existing Water Use Permits



WUPA No	Well No.	Applicant	Well Name	mgd	Received	Accept
Aquifer System: 30401 Mokuleia						
1088	3-3310-001	Dillingham Ranch Aina LLC	Mokuleia 1	0.417	04/29/2019	03/11/2020
1088	3-3310-002	Dillingham Ranch Aina LLC	Mokuleia 2		04/29/2019	03/11/2020
1090	3-3208-002	David Summers	Summers 2019	0.037	05/13/2019	
1092	3409-025	Maja Holdings, LLC	Maja 2019	0.004	10/15/2019	12/06/2019

3 WUPAs totalling 0.458



Monthly Pumpage Chart 12 Month Moving Average

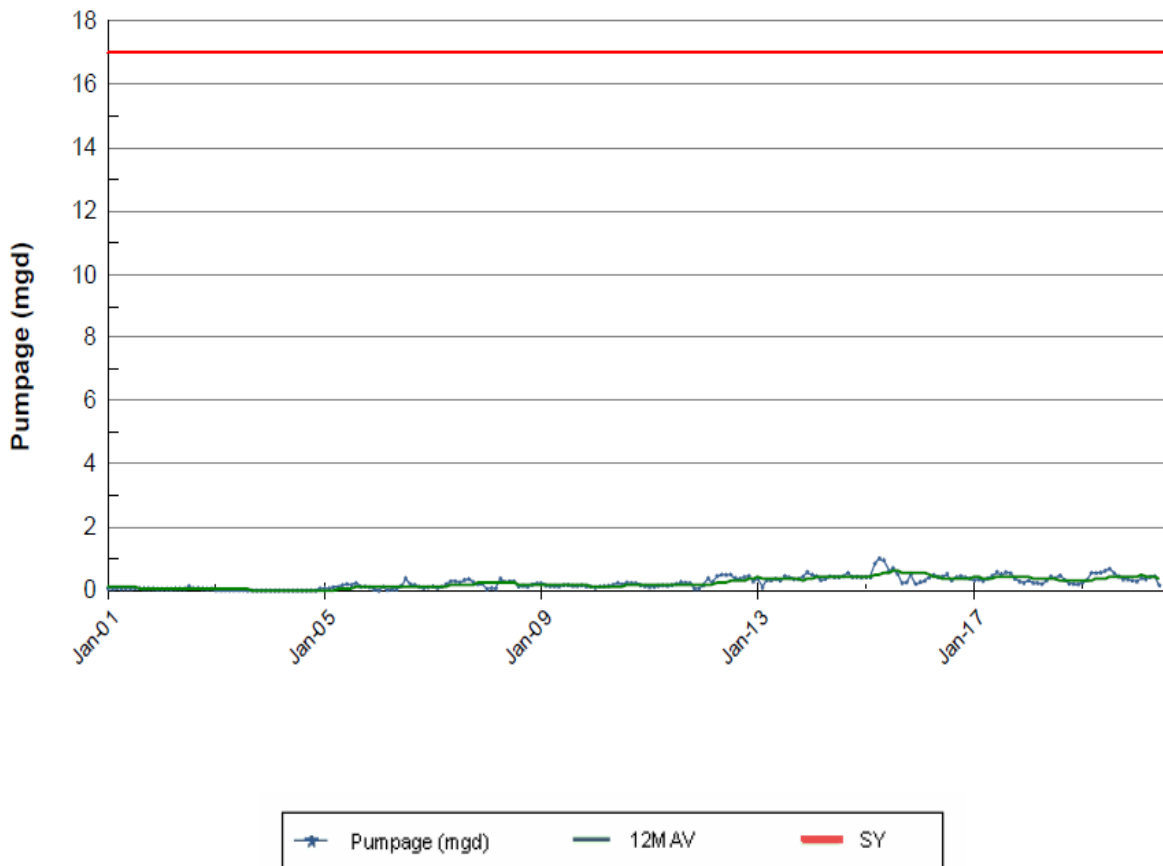


Exhibit 5 - Mokulē'ia ASA 12-MAV

IWREDSS Results Summary

Total Parcel Area in Acres: 1.280

Drought Frequency:	1 in 2 years	1 in 5 years (recommended)	1 in 10 years	1 in 20 years
Inches per acre:	41.166	44.615	46.167	47.342
gpd/acre:	3,063	3,319	3,435	3,522
Total Parcel Mgd:	0.004	0.004	0.004	0.005

TMK : 68004001
SOILS: Jaucas(1.000)

ANNUAL IRRIGATION REQUIREMENT (INCHES)

WATER BUDGET COMPONENTS											
NIR	GIR	GAL_A	G_RAIN	N_RAIN	ER	ER21	RO	INT	ETo	ET	DR
31.8	37.4	1015.1	36.0	24.7	13.7	17.4	6.5	4.9	56.3	45.4	11.0

GIR STATISTICS

ACRES	UNIT	MEAN	MED.	XMAX	XMIN	50%	80%	90%
95%								
	inch/acre	37.384	37.238	46.456	25.793	37.822	40.556	41.777
42.698	Thou. gpd/acre	2.781	2.770	3.456	1.919	2.814	3.017	3.108
3.177	Total thou. gpd	1.777	1.770	2.208	1.226	1.798	1.927	1.986
1.28								
2.029								

NIR STATISTICS

ACRES	UNIT	MEAN	MED.	XMAX	XMIN	50%	80%	90%
95%								
	inch/acre	31.776	31.652	39.487	21.924	32.149	34.473	35.511
36.293	Thou. gpd/acre	2.364	2.355	2.938	1.631	2.392	2.565	2.642
2.700	Total thou. gpd	1.510	1.504	1.877	1.042	1.528	1.638	1.688
1.28								
1.725								

Note:- Irrigated area for the selected TRICKLE, DRIP irrigation system is 0.5 of the total area


<u>Description</u>	<u>TMK</u>	<u>State Land Use Districts</u>	<u>Zoning</u>	<u>New/Existing</u>	<u>Units or Net Acreage</u>	<u>Duty GPD/Unit or GPD/Acre</u>	<u>Quantity of Use (GPD)</u>
 crop & ornamental trees	(1) 6-8-004:001	Urban	R-7.5	Existing	1.3	3,000	3,780
Total Units:					1.3	Total GPD:	3,780

Exhibit 7 - End Use Summary

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 **July 21, 2020** 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(s) need not 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 basis (attached).
11. This permit shall be subject to the Commission's periodic review of the **Mokulē'ia** 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 **Mokulē'ia** 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 **Mokulē'ia** 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.

STANDARD WELL CONSTRUCTION PERMIT CONDITIONS

1. The Chairperson of the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work authorized by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules (HAR).
2. This permit shall be prominently displayed, or made available, at the site of construction work until work is completed.
3. The well construction permit shall be for construction and testing of the well only. The permittee shall coordinate with the Chairperson and conduct a pumping test in accordance with the HWCPIIS (the latest pump test worksheet can be obtained by contacting Commission staff or at <http://files.hawaii.gov/dlnr/cwrm/forms/APTR.pdf>). The permittee shall submit to the Chairperson the test results as a basis for supporting an application to install a permanent pump. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson. No withdrawal of water shall be made for purposes other than testing without a Certificate of Pump Installation Completion. The permitted pump capacity described on the pump installation permit **may be reduced** in the event that the pump test does not support the capacity.
4. In basal ground water, the depth of the well may not exceed one-fourth (1/4) of the theoretical thickness (41 times initial head) of the basal ground water unless otherwise authorized by the Chairperson. If it can be shown that the well does not tap basal ground water then this condition may be waived after consultation with and acceptance by Commission staff. However, in no instance can the well be drilled deeper than one-half (1/2) of the theoretical thickness without Commission approval.
5. The permittee shall incorporate mitigation measures to prevent construction debris from entering the aquatic environment, to schedule work to avoid periods of high rainfall, and to revegetate any cleared areas as soon as possible.
6. In the event that historically significant remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee shall stop work and immediately contact the Department of Land and Natural Resources' State Historic Preservation Division. Work may recommence only after written concurrence by the State Historic Preservation Division.
7. The proposed well construction shall not adversely affect existing or future legal uses of water in the area, including any surface water or established instream flow standards. This permit or the authorization to construct the well shall not constitute a determination of correlative water rights.
8. The Well Completion Report Part I shall be submitted to the Chairperson within sixty (60) days after completion of work (please contact staff or visit <http://files.hawaii.gov/dlnr/cwrm/forms/WCR1.pdf> for current form).
9. The permittee shall comply with all applicable laws, rules, and ordinances; non-compliance may be grounds for revocation of this permit.
10. The well construction permit application and, if relevant, any related staff submittal approved by the Commission are incorporated into this permit by reference.
11. If the HWCPIIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.
12. Any variances from the HWCPIIS shall be approved by the Chairperson prior to invoking the variance.

Exhibit 9 - Well Construction Permit Standard Conditions

13. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than the date the permit expires.
14. If the well is not to be used it must be properly capped. If the well is to be abandoned during the course of the project then the permittee must apply for a well abandonment permit in accordance with §13-168-12(f), HAR, prior to any well sealing or plugging work.
15. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.
16. This permit shall apply to the location shown on the application only. If the well is to be relocated, the permittee shall apply for a new well construction/pump installation permit in accordance with §13-168-12(f), HAR.
17. Special conditions in the attached cover transmittal letter are incorporated herein by reference.

STANDARD PUMP INSTALLATION PERMIT CONDITIONS

1. The Chairperson to the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work covered by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules (HAR).
2. No withdrawal of water shall be made other than for testing until a Certificate of Pump Installation Completion has been issued by the Commission.
3. This permit shall be prominently displayed, or made available, at the site of construction work until work is completed.
4. The pump installation permit shall be for installation of a gpm rated capacity, or less, pump in the well. This permanent capacity may be reduced in the event that the pump test data does not support the capacity.
5. A water-level measurement access shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels.
6. The permittee shall install an approved meter or other appropriate means for measuring and reporting withdrawals and appropriate devices or means for measuring chlorides and temperature at the well head.
7. Well Completion Report Part II shall be submitted to the Chairperson within sixty (60) days after completion of work (please contact staff or visit <http://files.hawaii.gov/dlnr/cwrm/forms/WCR2.pdf> for current form).
8. The permittee, well operator, and/or well owner shall comply with all applicable laws, rules, and ordinances, and non-compliance may be grounds for revocation of this permit.
9. The pump installation permit application and, if relevant, any related staff submittal approved by the Commission are incorporated into this permit by reference.
10. If the HWCPIs are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.
11. Any variances from the HWCPIs shall be approved by the Chairperson **prior** to invoking the variance.
12. The work proposed in the pump installation permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than the date the permit expires.

Exhibit 10 - Pump Installation Permit Standard Conditions

13. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.
14. Special conditions in the attached cover transmittal letter are incorporated herein by reference.