

LINDA LINGLE
GOVERNOR OF HAWAII



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

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KEN C. KAWAHARA, P.E.
DEPUTY DIRECTOR

STAFF SUBMITTAL

for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

February 18, 2009
Honolulu, Oahu

Pierluigi Zappacosta
APPLICATION FOR WATER USE PERMIT No. 869,
WELL CONSTRUCTION AND PUMP INSTALLATION PERMITS
Papohaku-Zappacosta Saltwater Well (Well No. 0916-01), TMK 5-1-008:049
New (Agricultural) Use for 0.008 mgd
Kaluakoi Ground Water Management Area, Molokai

APPLICANT:

Luigi Manera
P.O. Box 1718
Kaunakakai, HI 96748

LANDOWNER:

Pierluigi Zappacosta
98 Faxon Road
Atherton, CA 94027-4046

SUMMARY OF REQUEST:

The applicant requests that the Commission on Water Resource Management (Commission) approve a water use permit for an allocation of **8,460 gallons per day**, or 0.008 million gallons per day (mgd) of **brackish basal** ground water from a **new well to desalt** and supply **3.5 acres of fruit tree irrigation**, as well the incidental maintenance of a covered saltwater swimming pool (one-time fill of 9,200 gallons plus 150 gpd to replace evaporation)

LOCATION MAP: See Exhibit 1

BACKGROUND:

November 20, 2008 The Commission received a completed Well Construction/ Pump Installation Permit Application. Staff acknowledgement noted the requirement for a water use permit prior to issuing a pump installation permit and encouraged the applicant to submit it simultaneously.

November 25, 2008 The applicant returned with a water use permit application, which required some additional information to be acknowledged as complete as of **December 4, 2008**, initiating a public notice.

January 7 & 14, 2009 Public Notice was issued in the Maui News.

January 29, 2009 The public review period for the water use permit closed with some comments and questions but no objections. Staff was directed by the applicant to proceed to a submittal for the Commission on both the well construction/pump installation permit application and the water use permit application.

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 2 mgd as the sustainable yield for the Kaluakoi Aquifer System, consisting only in non-potable brackish water. Individual existing water use permits in this aquifer system are shown in Exhibit 2. A summary of the current ground water conditions in the aquifer is provided in Table 1:

Table 1. Koolauloa Aquifer System

<u>ITEM</u>	Kaluakoi Aquifer System (mgd)
Sustainable Yield	2
Less: Other Existing Water Use Permits (shown in Exhibit 2)	0
Reservation to DHHL	0
Subtotal (Current Available Allocation)	2
Less: Other Completed Applications (shown in Exhibit 3)	0
Less: This Application	0.008
Subtotal (Potential Available Allocation/Allocation Deficit)	1.992

Therefore, the resource availability can 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 brackish, non-potable ground water to desalt and irrigate 3.5 acres of fruit trees.

II. Quantity Justification

The applicant is requesting a total of **0.008** mgd for 3.5 total acres of fruit trees, described as 0.5 ac avocado, 0.5 ac mango, and 2.5 ac citrus. The requested amounts are based on recommendations from Molokai growers, in acre-inches per week. Converting the average in the estimated range of acre-inches per week to gallons per day results in the estimates provided: 2,789 gallons per acre per day (gad) for avocado, 2,976 gad for mango, and 2,232 gad for citrus for a total irrigation requirement of 8,462 gpd. Staff's irrigation model (IWREDSS) rough estimate for required amounts for a comparable fruit tree crop on this acreage is a very low 4007 gpd, which would underestimate the needs of trees not receiving rainfall and subject to dry, windy conditions and poor soils. In this matter we defer to Molokai experience.

III. Efficiency of Use

The applicant has developed his plans with the help of Makalapua Landscapes, Inc. of Molokai, drawing from research done on the citrus industry by the University of California, Mango Botany by CAB International (UK-based intergovernmental research), the Compendium of Citrus Diseases from APS Press, and the Queensland (Australia) Department of Primary Industries. Staff is unaware of efforts and plans for desalting, but has forwarded the applicant to the Department of Health for further discussions.

IV. Analysis of Practical Alternatives

The applicant has identified **four** alternatives to the proposed use of brackish caprock water. An analysis of each of the alternatives is as follows:

1. There is no municipal service.
2. There is no reclaimed wastewater available.
3. There is no ditch system in its area.
4. There is no surface water in this area.

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 potable water service and is proposing to install only a single non-potable system. Therefore, this provision does not need to be invoked.

(3) Interference with other existing legal uses

There are no other wells currently in use within 1 mile of this source which use water. Pump test data for this well are not yet available, as the well has yet to be permitted, drilled, and pump tested.

(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.”

There have been public questions on this application (other than state & county general plans and land use designation comments noted in criteria (5)), expressing an interest in the desalting process and whether the applicant would be willing to share the information. The applicant has been asked to provide responses to these questions, and he has indicated he will provide written testimony to the Commission and possibly to be present at the meeting.

There have been no objections. As there are no freshwater sources in this part of the island other than the brackish ground water lens, drawing brackish water from the aquifer is not expected to impact environmental concerns. The well and agricultural operations do not seem to impact public activities.

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 **Agriculture**. 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 County's County Council, Department of Planning and Permitting, and the Department of Water Supply;

No objections have been made through this review. These proposed uses are consistent with the state and county general plans and land use designations. The Department of Health has noted that there may be issues concerning the waste stream disposition, any chemical cleaning, systems redundancy and maintenance considerations. The applicant is working with the Department of Health to permit an injection well.

This application seems to meet the state & county general plans and land use designations.

(6) County land use plans and policies

Normal County review includes County Council, Department of Planning and Permitting, and the Department of Water Supply. No objections have been made. The Maui Department of Water Supply has submitted standard considerations about proper maintenance and protection from contamination of the aquifer, and recommended proper accounting of water use and environmental monitoring.

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.

Therefore, this application will not interfere with Hawaiian home lands rights.

Other Issues

While the desalting of brackish water for irrigation is an innovative use of an alternative resource in an area difficult to serve by more conventional means, staff has no information concerning proper disposal of brine from the desalting process. Irrigation could have a positive impact on nearshore discharge of fresh water and enhance the aquatic environment. However, disposal of brine will be accomplished by an injection well into saltwater below the brackish aquifer lens.

RECOMMENDATION:

Staff recommends that the Commission approve the issuance of Water Use Permit No. **869** to Pierluigi Zappacosta for the reasonable and beneficial use of 8,460 gallons per day of **brackish basal** ground water for agricultural irrigation from the Papohaku-Zappacosta Well (Well No. 0916-01), subject to the standard water use permit conditions listed in Attachment B and the following special conditions:

1. The applicant shall obtain appropriate approval for the disposal of desalting waste stream brine from the Department of Health, and meet the Division of Aquatics approval for any described impacts on the nearshore environment, prior to using any water from a desalting process.
2. 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,


KEN C. KAWAHARA, P.E.
Deputy Director

Attachment(s): A (Water Use Permit Detailed Information)
 B (Water Use Permit Standard Conditions)
 C (Well Construction Permit Standard Conditions)
 D (Pump Installation Permit Standard Conditions)

Exhibit(s): 1 (Location Map)

APPROVED FOR SUBMITTAL:


LAURA H. THIELEN
Chairperson

WATER USE PERMIT DETAILED INFORMATION

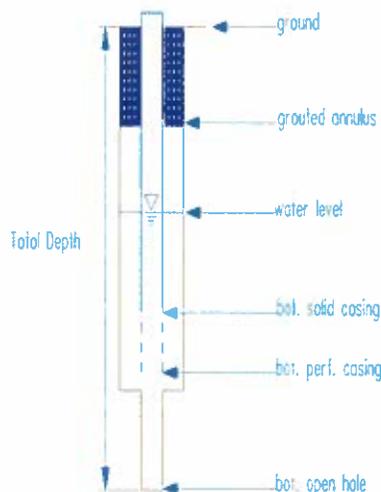
Source Information

AQUIFER: Kaluakoi System, West Sector, Molokai
 Sustainable Yield: 2.000 mgd
 Existing Water Use Permits: 0 mgd
 Available Allocation: 0 mgd
 Total other pending applications: 0 mgd
 This application: 0.008 mgd

WELL: Papohaku-Zappacosta Well (Well No. 0916-01)
 Location: 4300 Pohakuloa Road, Kaluakoi, Molokai TMK: 5-1-008:049
 Year Drilled: NA
 Casing Diameter: 12 in.
Elevations (msl = 0 ft.)
 Water Level: < 1 ft.
 Ground: 37 ft.
 Bottom of Solid Casing: -8 ft.
 Bottom of Perforated: -23 ft.
 Bottom of Open Hole: NA ft.

Total Depth: 60 ft.
 Grouted Annulus Depth: 26 ft.

Pump Capacity 15 gpm



Use Information

Quantity Requested:	8,460 gallons per day.
Future Type of Water Use:	Agricultural
Place of Water Use:	TMK: 5-1-008:049
Reported Water Usage:	0 gpd
Nearby Similar Water Usage:	0 gpd
Kaluakoi Aquifer System	
Current 12-Month Moving Average Withdrawal (See Exhibit 2):	0 mgd

Nearby Surrounding Wells and Other Registered Ground Water Use

There are no other wells within a mile of the well (see Exhibit 1). 1987 estimated existing ground water use from the Kaluakoi Aquifer System is 0 mgd. The 1992 Draft of the Oahu Water Use and Development Plan estimated that the existing withdrawals from the Koolauloa Aquifer System is 0 mgd as of 1990. The Final Report of the Molokai Working Group estimated the actual use from the Kaluakoi Aquifer System to be 0 mgd.

Public Notice

In accordance with HAR §13-171-17, a public notice was published in the Honolulu Advertiser on January 7, 2009 and January 14, 2009 and a copy of the notice was sent to the Mayor's office. Copies of the completed application were sent to the Department/Board of Water Supply, Planning Department, Department of Land Utilization (Oahu only), 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 January 29, 2009.

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 January 29, 2009.

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

Staff Submittal

February 19, 2009

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 February 18, 2009 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) must 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 Koolauloa Aquifer System's sustainable yield. The amount of water authorized by this permit may be reduced by the Commission if the sustainable yield of the Koolauloa Aquifer System, 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 Kaluakoi 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.

WELL CONSTRUCTION PERMIT

Aloha Well, Well No. 1234-56

Note: This permit shall be prominently displayed at the construction site until the work is completed

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the construction and testing of Aloha Well (Well No. 1234-56) at TMK 5-5-5: 55, Oahu, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following 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 HWCPIS (the latest pump test worksheet can be obtained by contacting Commission staff or at www.hawaii.gov/dlnr/cwrm/resources_permits.htm). 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 1 shall be submitted to the Chairperson within sixty (60) days after completion of work (please contact staff or visit www.hawaii.gov/dlnr/cwrm/resources_permits.htm 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 HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.
12. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.
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.

Date of Approval: **January 1, 2000**

Expiration Date: **January 1, 2002**

LAURA H. THIELEN, Chairperson

Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I have signed, dated, and returned the permit to the Commission. I understand that this permit is not to be transferred to any other entity. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to \$5,000 per day starting from the permit date of approval.

Driller's Signature: _____ C-57 License #: _____ Date: _____

Printed Name: John Doe Firm or Title: Aloha Water Company

Please sign both copies of this permit, return one to the Chairperson, and retain the other for your records.

Attachment

ATTACHMENT C

PUMP INSTALLATION PERMIT

Aloha Well, Well No. 1234-56

Note: This permit shall be prominently displayed at the site until the work is completed

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the pump installation for Aloha Well (Well No. 1234-56) at TMK 5-5-5: 55, Oahu, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following 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 **Error! Reference source not found.** 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 work (please contact staff or visit www.hawaii.gov/dlnr/cwrm/resources_permits.htm 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.
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.

Date of Approval: **January 1, 2000**

Expiration Date: **January 1, 2002**

LAURA H. THIELEN, Chairperson

Commission on Water Resource Management

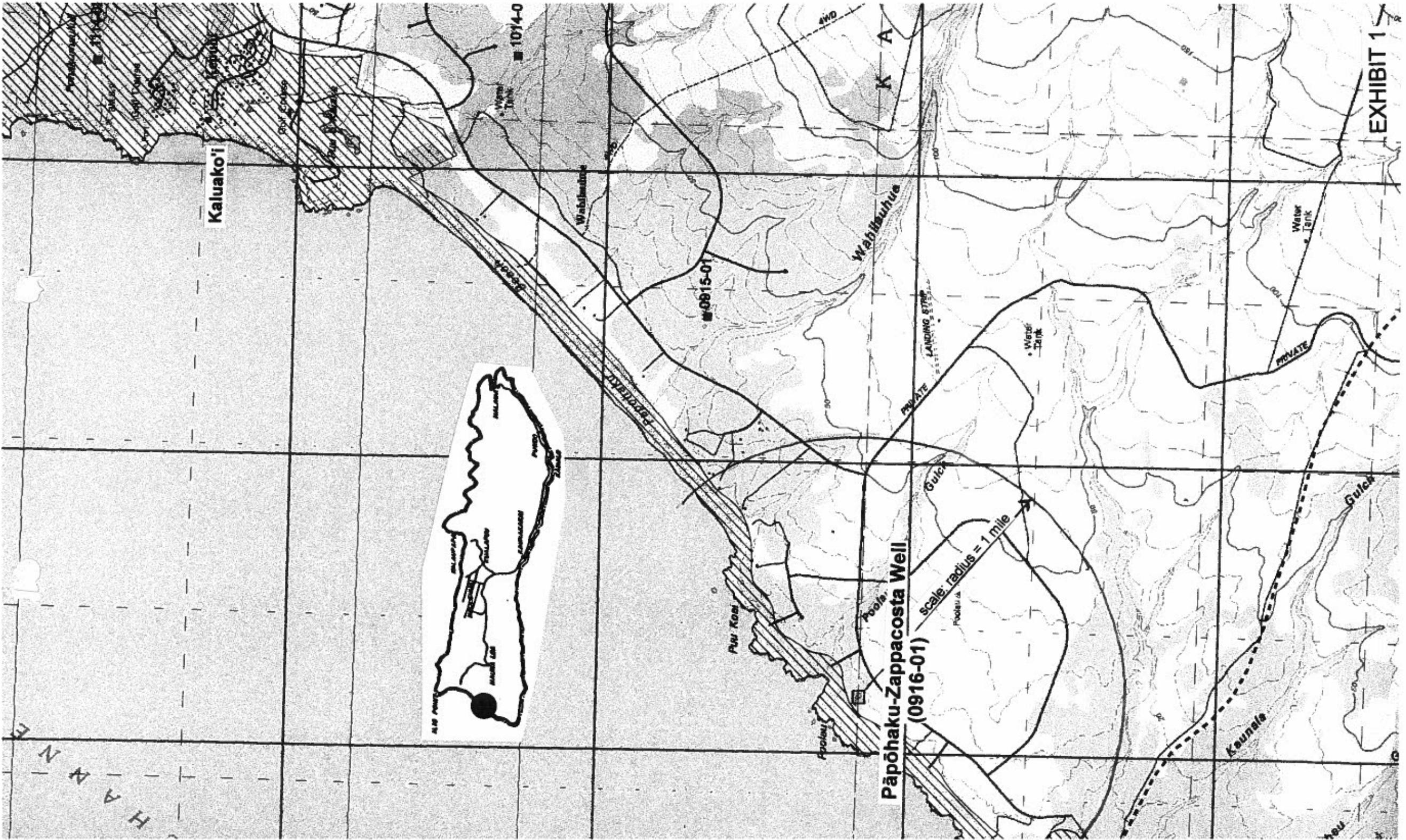
I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the pump installer have signed, dated, and returned the permit to the Commission. I understand that this permit is not to be transferred to any other entity. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to \$5,000 per day starting from the permit date of approval.

Installer's Signature: _____ C-57, C-57a, or A License #: _____ Date: _____

Printed Name: John Doe Firm or Title: Aloha Water Company

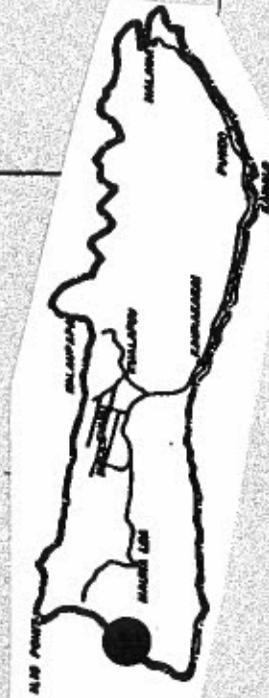
Please sign both copies of this permit, return one to the Chairperson, and retain the other for your records.

ATTACHMENT D



H
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W
A
I
I

Kaluako'i



1014-0

0915-01

Pāpōhaku-Zappacosta Well
(0916-01)

Scale: radius = 1 mile

EXHIBIT 1

