



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

STAFF SUBMITTAL

COMMISSION ON WATER RESOURCE MANAGEMENT

June 17, 2016  
Honolulu, Oahu

APPLICATIONS FOR A GROUND WATER USE PERMIT  
AND PUMP INSTALLATION FOR 49 GALLONS PER MINUTE (GPM)  
Kawailoa Mauka (Well No. 3-3605-029), TMK (1) 6-1-005:020 Lot 1, WUP No. 01015  
New Domestic and Landscaping Use of 0.003 mgd  
Kawailoa Ground Water Management Area, Oahu

APPLICANT:

Justin and Cynthia Smith  
P.O. Box 1379  
Hanalei, HI 96714

LANDOWNER:

Justin and Cynthia Smith  
P.O. Box 1379  
Hanalei, HI 96714

SUMMARY OF REQUEST:

The applicant requests that the Commission on Water Resource Management (Commission) approve a water use permit for a new allocation of 0.003 million gallons per day (mgd) of potable basal ground water from an existing well to supply one acre of landscaping with fruit trees plus one dwelling (which is exempt from a water use permit), and approval of the installation of the requested 49 gallons per minute (gpm) pump.

LOCATION MAP: See Exhibits 1A & B

BACKGROUND:

- April 26, 2011      Following normal review and construction processes, a certificate of completion was issued for the construction of the Kawailoa Mauka Well (Well No. 3-3605-029) to the developer of this parcel for domestic use, which is exempted from obtaining a water use permit under the Water Code. The pump installation permit expired, the pump never installed, and the pump installation was left to be done by a new owner.
- November 28, 2015      The new owners filed a pump installation permit application through their licensed contractor, and were notified that a water use permit was required, as the intended use of one acre of fruit trees went beyond individual domestic use.

January 19, 2016 The new landowners filed a complete water use permit application for one dwelling, which is exempt from a water use permit, plus 2,000 gallons per day for an acre of landscaping and fruit trees. Additional information regarding the source, use, notification, objections, and field investigation(s) is provided in Exhibit 2.

February 18 & 25, 2016 The Honolulu Star-Advertiser published the public notice for this application (Exhibit 3).

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 **29** mgd as the sustainable yield for the Kawaihoa Aquifer System Area. Individual existing water use permits in this aquifer system area are shown in Exhibit 4. A summary of the current ground water conditions in the aquifer is provided in Table 1:

Table 1. Kawaihoa Aquifer System Area

| <u>ITEM</u>   | Kawaihoa<br>Aquifer<br>System Area<br>(mgd) |
|---|---|
| <b>Sustainable Yield</b>  | <b>29</b>                                   |
| Less: Other Existing Water Use Permits (shown in Exhibit 4)         | <b>1.838</b>                                |
| Reservation to DHHL   | <b>0</b>                                    |
| <b>Subtotal (Current Available Allocation)</b>                      | <b>27.162</b>                               |
| Less: Other Completed Applications (shown in Exhibit 5)             | <b>0</b>                                    |
| Less: This Application  | <b>0.003</b>                                |
| <b>Subtotal (Potential Available Allocation/Allocation Deficit)</b> | <b>27.159</b>                               |

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 – beneficial use*

The applicant is requesting the use of potable ground water to supply one dwelling and one acre of landscaping and fruit trees. 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 domestic and irrigation uses.

*Reasonable Use**II. Quantity Justification*

The applicant is requesting a total of **500 gpd** for domestic purposes, which is exempt from water use permitting, and **2,000 gpd** to irrigate one acre of landscaping with hedge plants and fruit trees (refer to Exhibit 6 for IWREDDDS calculations, and to Exhibit 7 for total use request summary). The full allocation will be reported from a single meter covering all uses.

The Smith's lot is 3.0 acres of agricultural zoned land. The City and County of Honolulu Water System Standard for single family residence is 500 gpd per household or 2,500 gpd per acre. This request falls within that county residential standard.

Staff uses an Irrigation Water Requirement Estimation Decision Support System (IWREDDDS), produced under contract to the UH College of Tropical Agriculture and Human Resources (CTAHR), to compare a composite of parcel-specific rainfall, evapotranspiration (ET), soil types, crop types, irrigation methods, etc. As recommended by CTHAR, staff chooses the estimated need for the one year in five drought in the area. IWREDDDS was run for heliconia (a representative "hedge plant") and for citrus trees as a representative of "fruit trees". IWREDDSS assumes a commercial effort at efficient plant production, with ideal plant spacing, which generally requires more irrigation water than a landscaping effort.

The model shows that about one-half of the soil types for this parcel are those considered weathered, well-drained, with little erodibility, generally good permeability, and slow runoff. These are used mainly for sugar and pasture, as has been the history in this location. The remaining soil types tend to be more stoney and difficult to till.

The IWREDDSS requirement for heliconia came to 3,151 gallons per acre per day (gad). Citrus required 2,568 gad (see Exhibit 6). These are somewhat more than the applicant's proposed irrigation needs of 2,000 gad. Given the variability of microclimates, the proposed amounts represent a conservative estimate. Based upon results from the IWREDDSS modeling, staff considers the request reasonable. With the domestic request of 500 gpd, this brings the total to 2,500 gad, which is rounded for a total recommendation of **0.003 mgd**. The recommended allocation is subject to actual experience and monitoring via water use reporting.

*III. Efficiency of Use*

The proposed trickle-drip is the most efficient means of irrigation. The applicant has specified that a low pressure switch would be installed to prevent leaks from being undetected.

#### *IV. Analysis of Practical Alternatives*

The applicant has not identified any available alternative sources for the proposed use of potable basal ground water. There is no access to streams, ditches, or salt or brackish water for desalination, and no available wastewater. However, as a conservation measure, a low-pressure cut-off switch will be installed to prevent leaks.

County domestic water meter issuance follows a standard allowance of one meter per parcel, and one meter has already been issued. The parcel in question is an agriculture condominium property regime (CPR), with three lots, of which one additional lot has now requested service. The county has a means for landowners occupying CPR properties on agriculture parcels to obtain separate meters. This requires an impact fee, and is associated with building plans for permit approval. The applicant does not yet have building plans, and is therefore unable to make such a request at this time. Moreover, the applicant is currently declining the requirement to install new infrastructure, in favor of self-reliance and control of the lot's water system for agricultural activities. There are no additional agricultural plans at present.

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, the applicant does not have any water service and is proposing to install only a single potable system. Therefore, this provision does not need to be invoked. However, staff proposes a special condition to require that any fertilizer or pesticide supplement for irrigation be implemented with backflow prevention, as recommended by the Department of Health.

#### (3) Interference with other existing legal uses

There are 8 other wells currently in use within 1 mile of this source, of which 4 use water and 3 are observation wells (refer to Exhibit 2). There are no pump test data for this well, as the proposed pump capacity is 49 gpm, below the pump testing threshold. This level of pumping rarely provides a signal of impact or boundary conditions not masked by underlying barometric and tidal effects. This slope has ample recharge and minimal withdrawals; it is a water-rich zone. This well can therefore be expected to have minimal effect on any other wells or other water resources.

There are also no streams in the immediate vicinity. There was once a wetland down-gradient, but it has since been used as a landfill, now closed and covered. Other wetlands occupy lowlands along the coast, but are lateral to the slope of flow. No surface water impacts are expected.

#### (4) Adequate provision for protecting the 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.”*

This location is on former sugar plantation land, adjacent to filled wetland (former landfill, now closed and covered), and the applicant has opined that proposed activities will not affect any known traditional and customary practices, fish, wildlife, or ecological balance, or scenic beauty. The Historic Preservation Division has commented that previous surveys in this area failed to show historic sites at this location, and noted extensive alteration to this location by past plantation agricultural operations. They find that no historic properties are affected by the project (Exhibit 14).

This location has relatively few wells, although it formerly contained a 22-well battery for sugar irrigation. Water levels (25 feet) are high for the proximity to the ocean (2000 ft.), and the water is brackish (340-380 mg/L) for such high basal heads. This may be due to return irrigation flow from the agricultural Kawailoa plateau, immediately mauka. It is also possible that strong surf surge sustains a high level of salt spray into this area.

Traditional and customary Hawaiian rights within the definition of public interest is addressed by the applicant as simply they will not impede any customary or traditional Hawaiian rights. This issue is further discussed under section (8) II. of this submittal under *Ka Paakai*. Otherwise, staff believes that 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-1. 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 Department/Board of Water Supply.

No objections have been made through this review. The Honolulu Department of Planning and Permitting and the Land Use Commission have acknowledged the land use and planning designations for this parcel and lot. The proposed uses are consistent with the state and county general plans and land use designations.

The Department of Health Waste Water Division has identified individual wastewater systems in the neighborhood, for the applicant's information.

Therefore, staff believes this application meets the state & county general plans and land use designations.

(6) County land use plans and policies

The same review agencies are asked to comment on plans and policies. No comments or objections have been made.

Therefore, staff believes 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. 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 (DHHL) has reviewed this application. The Department of Hawaiian Home Lands offered late comments (Exhibit 10) addressing three perceived application inadequacies:

- 1.) that eventual plans of the Department could potentially place claims on the use of water from this area, and the Department’s right to reserve water represents a public trust;
- 2.) negative declarations concerning traditional and customary uses “failed to demonstrate sufficient inquiry”; and
- 3.) concern that agricultural water use support agricultural endeavors and not “gentleman’s farms”.

Response:

1) The Department of Hawaiian Home Lands has not expressed current and foreseeable needs that must be met from the Kawaioloa Aquifer System Area in the State Water Projects Plan of the Hawaii Water Plan. Even if DHHL did, standard water use permit conditions described earlier require accommodation of that need, and practice has involved a review of all permits in the area. In view of the sustainable yield of 29 mgd and current allocations of less than 2 mgd, no DHHL current plans, and mitigative standard water use permit conditions, this application does not pose any interference with Hawaiian home lands rights.

See below (8. Other Issues) for consideration of other Hawaiian Home Lands comments.

(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. Private lands and funds are used, and there are no activities proposed falling that will use conservation district lands, shoreline setback areas, or historic sites designated on the National or Hawaii register; make amendment to county general plans which results in designations other than agriculture, conservation or preservation; construct or modify helicopter facilities, build a waste-to-energy facility, landfill, oil refinery, or power generating facility.

Cumulative Impacts §HAR11-200-8.B.

Even where a categorical exemption appears to include a proposed action, that action cannot be declared exempt if the cumulative impact of planned successive action in the same place, over time, is significant, or when an action that is normally insignificant in its impact on the environment may be

significant in a particularly sensitive environment. Proposed activities for this water use do not change foreseen and planned land use impacts.

***II. Ka Paakai O Ka 'Aina v. LUC (Protecting the common property right to traditional and customary resource maintenance practices)***

*The Hawaii Supreme Court has enumerated three tests for agencies to protect traditional and customary Hawaiian practices to the extent feasible. In Kapaakai vs. LUC, it required that agencies “make specific findings and conclusions as to:*

- (1) the identify and scope of ‘valued cultural, historical, or natural resources’, including the extent to which traditional and customary rights are exercised there;*
- (2) the extent to which those resources – including the rights – will be affected or impaired by the proposed action; and*
- 3) the feasible action, if any, to be taken to reasonably protect rights if they are found to exist.”*

There is no standard source for applicants or agencies to consult regarding potential traditional and customary practices. It is DLNR’s responsibility to assess potential impacts of proposals on environmental resources in the public trust, which is the aim of assuring traditional practices. DLNR has a liaison to the various island Aha Moku councils, which do possess knowledge of practitioners who may be consulted on these issues; staff is conducting an outreach program to establish affirmative responsibilities on these matters, and a legislatively approved program attached to DLNR is building its capacity to aid us in those responsibilities.

The Commission has publically noticed this application and circulated it to various agencies, including those with more specific responsibilities to protect Hawaiian needs and practices. No comments have surfaced identifying such practices. Access for traditional and customary resource maintenance practices is supported as a public trust. Further, the application has been routed to the State Historic Preservation Division for comments as described earlier.

Staff also reviewed the Kipuka and Papakilo databases developed by the Office of Hawaiian Affairs . Neither had any results for this parcel.

A hydrogeologic view aids the concerns for maintaining ecological balance. The area has comparatively high flows of ground water to the ocean and high levels of intermixing with salt water within the coastal wetland. Together with high water levels in this area and negligible cumulative wells withdrawals in this area, impacts of this well on natural discharge are very doubtful. The higher water levels also justify pumpage-to-recharge ratio of 0.51 as defined in the Water Resource Protection Plan of the Hawaii Water Plan, which means that 49% of recharge would continue to the ocean even if sustainable yield is pumped 100%. This land was in sugar for a century, and a former wetland has been filled in nearby, complicating the question of what resources may be impacted by any project as well as any practices that may once have been exercised. The Division of Aquatic Resources (DAR) responded that this application does not appear to affect water resources, but believes a pump test may help determine whether cumulative withdrawals may affect the Ukoa Pond wetland (Exhibit 13). Based on experience that established the Hawaii Well Construction and Pump Installation Standard’s pump testing protocols, staff believes it is highly unlikely that pumping test impacts could be noticed beyond the property boundaries.

### ***III. “Gentleman’s Estates”***

The Office of Hawaiian Affairs (OHA) shares this concern (Exhibit 11). As a water resource protection agency, the Commission does not regulate land use, although water use permits identify allowed uses and any violations make the permit subject to revocation. We are aware that identifying and enforcing a distinction between “true” agriculture and “hobby farmers” or “gentleman estates” has been a very difficult one for county planning and permitting agencies, and we do not presume to have superior knowledge or management expertise. The Honolulu Department of Planning and Permitting, which does have direct jurisdiction over land use and building permits, has acknowledged the applicant’s Ag-1 zoning and noted simply that a future dwelling must be a farm dwelling in accordance with the county’s Land Use Ordinance if it is to be approved (Exhibit 12). The Land Use Commission has similarly cited their Hawaii Revised Statute §205-4.5(a)(4) requiring a dwelling to be used in connection with farming activity (Exhibit 13). Such building permits are the kuleana of the county.

### ***IV. Municipal Service for Additional Lots in an Agricultural Condominium Parcel***

OHA raised the question of the reasonability of a well alternative to domestic service from a well when water is available from the County. OHA is aware that the county can provide for service beyond the single meter-per-parcel standard. This issue is discussed above in (2) *IV. Practical Alternatives*.

### **RECOMMENDATION:**

Staff recommends that the Commission:

- A. Approves the issuance of Water Use Permit No. 01015 to Justin and Cynthia Smith for the reasonable and beneficial use of 0.003 million gallons per day (mgd) of fresh water for domestic and 1 acre of agricultural use from the Kawaiiloa Mauka Well (Well No. 3-3605-029), subject to the standard water use permit conditions listed in Exhibit 7 and the following special conditions:
  1. This permit may be suspended or revoked if the use as described in A. changes without proper modification or transfer as described in 174C-57 HRS and 174C-59, respectively. This includes, but is not limited to: type of use, location of use, land use classification changes, source ownership, or anything that varies from the application.
  2. 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 for the applicant.
  3. 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.
  4. Any irrigation supplements through the water line shall be implemented with a backflow prevention system as approved by the Department of Health.

- B. Approves a pump installation permit for Kawaioloa Mauka (Well No. 3-3605-029) for the requested 49 gallons per minute (gpm) capacity, subject to the standard pump installation permit conditions as described in Exhibit 8.

Respectfully submitted,



JEFFREY T. PEARSON, P.E.  
Deputy Director

- Exhibits:
- 1A & 1B (Location Maps)
  - 2 (Water Use Permit Detailed Information)
  - 3 (Public Notice)
  - 4 (Existing Water Use Permits and 12-Month Moving Average Withdrawal)
  - 5 (Pending Water Use Permit Applications)
  - 6 (IWREDSS Calculations)
  - 7 (Water Use Permit Standard Conditions)
  - 8 (Pump Installation Permit Standard Conditions)
  - 9 (DHHL Comments)
  - 10 (OHA Comments)
  - 11 (Honolulu Planning and Permitting Comments)
  - 12 (Land Use Commission Comments)
  - 13 (DLNR Aquatics Division Comments)
  - 14 (DLNR Historic Preservation Comments)

APPROVED FOR SUBMITTAL:



SUZANNE D. CASE  
Chairperson

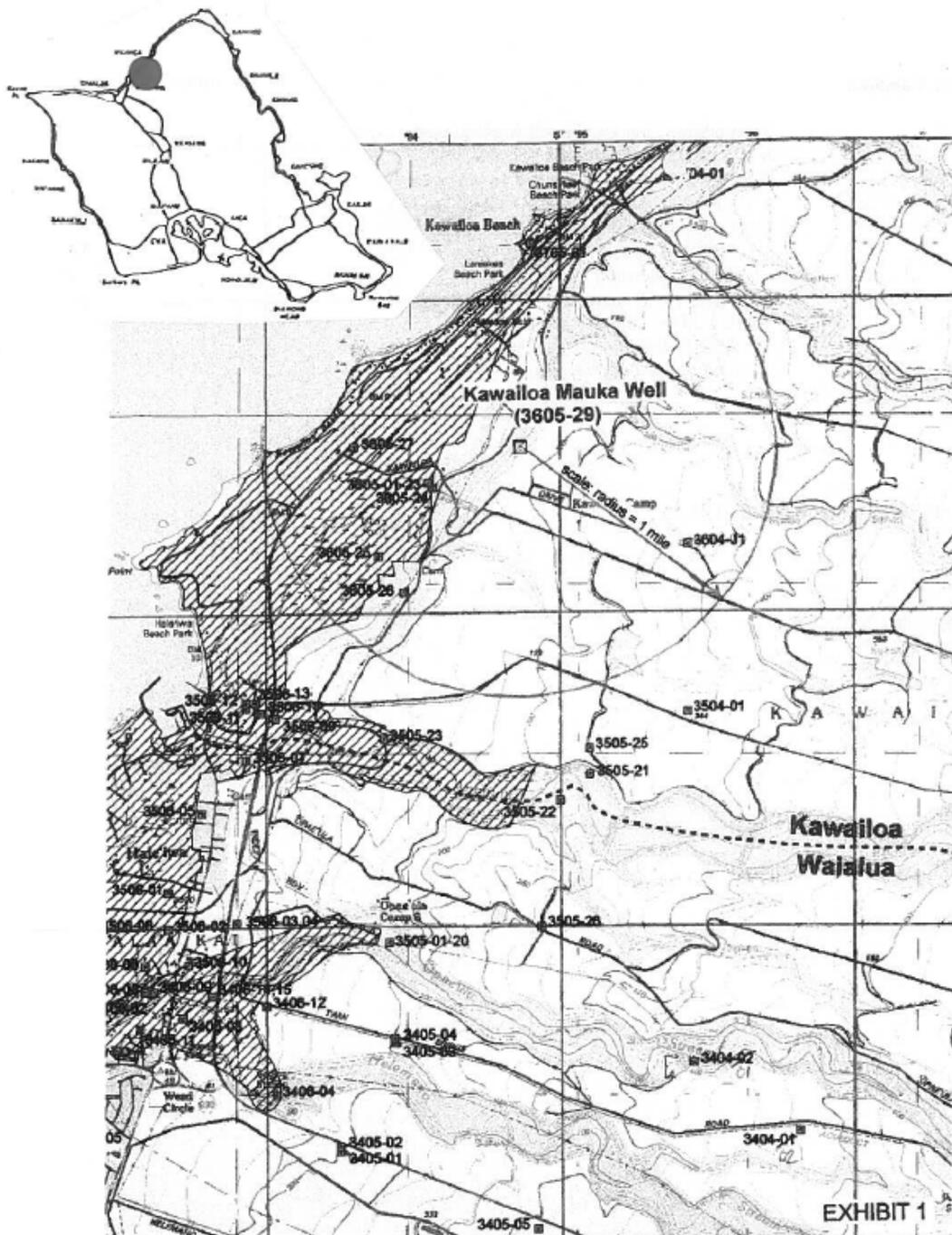


EXHIBIT 1A: LOCATION MAP

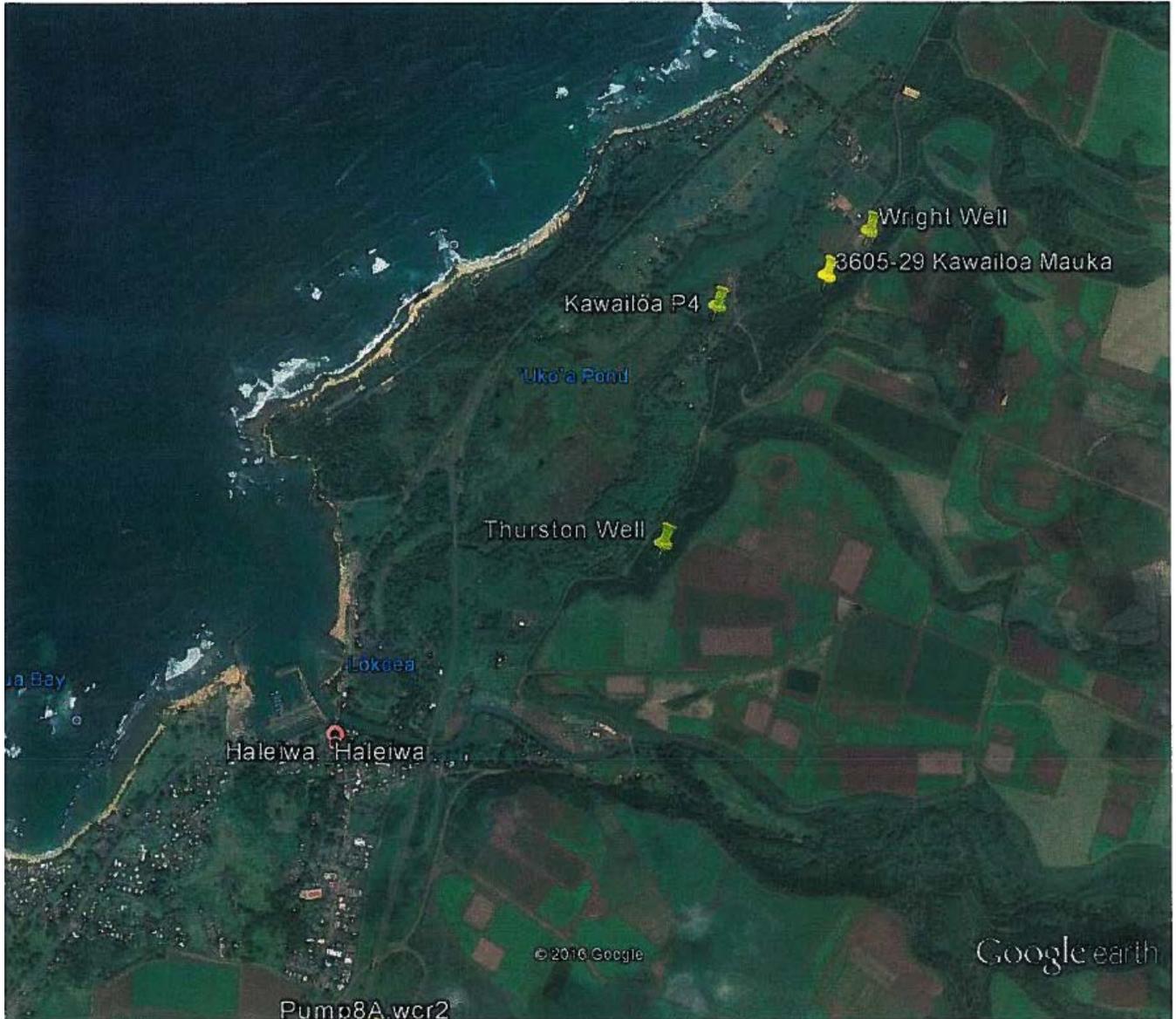


EXHIBIT 1B: LOCATION MAP

**WATER USE PERMIT DETAILED INFORMATION**

Source Information

**AQUIFER:** Kawaioloa System, North Sector, Oahu  
 Sustainable Yield: 29 mgd  
 Existing Water Use Permits: 1.838 mgd  
 Available Allocation: 27.162 mgd  
 Total other pending applications: 0 mgd  
 This application: 0.003 mgd

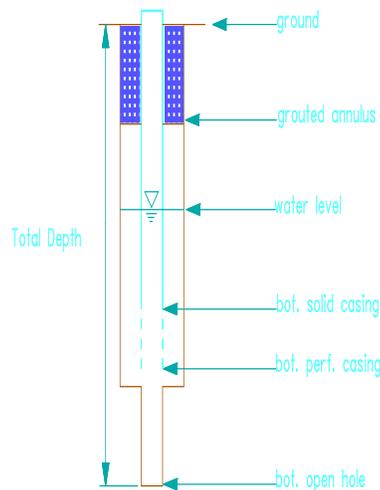
**WELL:** Kawaioloa Mauka (Well No. 3-3605-029)  
 Location: Kawaioloa, Oahu, TMK: (1) 6-1-005:020 Lot 1  
 Year Drilled: 2010  
 Casing Diameter: 6 in.

Elevations (msl= 0 ft.)

Water Level: 40.57 ft.  
 Ground: 83 ft.  
 Bottom of Solid Casing: 43 ft.  
 Bottom of Perforated: 13 ft.  
 Bottom of Open Hole: 13 ft.

Total Depth: 70 ft.  
 Grouted Annulus Depth: 35 ft.

Proposed Pump Capacity 49 gpm



Use Information

|   |                          |
|---|--------------------------|
| Quantity Requested:   | 2,000 gallons per day    |
| Quantity Recommended  | 3,000 gallons per day    |
| Type of New Water Use:                                      | Domestic and Landscaping |
| Place of New Water Use:                                     | TMK: (1) 6-1-005:020     |
| parcel acreage:   | 11.222 ac                |
| applicant lot acreage:                                      | 3.000 ac                 |
| new use acreage:  | 1.000 ac                 |
| Reported Water Usage:                                       | 0.349 gpd                |
| Nearby Potential Similar Water Usage:                       | 1.838 gpd                |
| Kawailoa Aquifer System                                     |                          |
| Current 12-Month Moving Average Withdrawal (See Exhibit 2): | 0.349 mgd                |

Nearby Surrounding Wells and Other Registered Ground Water Use

See “(3) Interference with other legal uses”, page 3.

One pumping well is down-gradient at the coast, 1 across the slope at about the same distance as coastal discharge, and thus without likely interference. The other 2 are from 1000 – 1500 feet across the flanks of the gradient. Once there was a gallery of 25 wells configured as Kawailoa Battery 4, but all are abandoned and sealed.

Public Notice

In accordance with HAR §13-171-17, a public notice was published in the Honolulu Star-Advertiser on February 18 and 25, 2016 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 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 March 10, 2016.

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 March 10, 2016.

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

Staff Submittal

June 17, 2016

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.

**PUBLIC NOTICE**

**Application for Water Use Permit  
Kawailoa 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. 01015      Kawailoa Mauka (Well No. 3-3605-029)

Applicant:             Justin and Cynthia Smith  
                                 P.O. Box 1379  
                                 Haleiwa, HI 96712

Landowner:            Justin and Cynthia Smith  
                                 P.O. Box 1379  
                                 Haleiwa, HI 96712

Date Application Filed as Complete: January 19, 2016  
Hydrologic Unit / Aquifer System Area: Kawailoa System, North Sector, Oahu  
Water Source: Kawailoa Mauka (Well No. 3-3605-029), Tax Map Key (1) 6-1-005:020  
Quantity Requested: 0.002 million gallons per day  
Existing/New Use: New landscaping use for 1 acre  
Place of Water Use: at Tax Map Key: (1) 6-1-005:020

Written objections or comments on the 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 March 10, 2016. 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

  
JEFFREY T. PEARSON, P.E., Deputy Director for  
SUZANNE D. CASE, Chairperson

Dated: February 11, 2016

Publish in: Honolulu Star Advertiser issues of February 18, 2016 and February 25, 2016

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

| Report Parameters              |                |
|--------------------------------|----------------|
| Island:                        | Oahu           |
| Applicant or Source Landowner: | All            |
| Well # Prefix:                 | All            |
| Date:                          | All            |
| Aquifer:                       | 30403 Kawaiioa |
| TMK:                           | All            |
| Aquifer Type:                  | All            |
| Water Quality:                 | All            |
| Not                            | 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: 30403 Kawaiioa**  
**Sustainable Yield (mgd): 29**

| WUP No  | Approved   | Permittee                                      | Well No    | Well Name       | WUP (mgd)            | 12-MAV (mgd)  | Diff (mgd)   | Date Last Reported |
|---|------------|--|------------|-----------------|----------------------|---------------|--------------|--------------------|
| 56  | 09/11/1981 | Royal Paniolo Ranch                            | 3-3704-001 | Paniolo Ranch   | 0.430                |               |              | 01/31/1994         |
| 173   | 02/19/1992 | Attractions Hawaii                             | 3-3803-001 | Waimea Falls 1  | 0.200                |               |              |                    |
|   |            |  | 3-3803-003 | Waimea Falls 2  |                      |               |              |                    |
| 179   | 11/18/1992 | c/o Glenn Nakamura (Takemitsu Nakamura Tr EST) | 3-4002-009 | Sunset-Nakamura | 0.001                |               |              |                    |
| 323   | 01/26/1994 | Honolulu Board of Water Supply, BWS            | 3-4101-007 | Waialeale I     | 0.339                | 0.248         | 0.091        | 12/31/2015         |
| 324   | 01/26/1994 | Honolulu Board of Water Supply, BWS            | 3-4101-008 | Waialeale II    | 0.411                | 0.101         | 0.310        | 12/31/2015         |
| 528   | 10/26/2000 | UH DEPT OF ANIMAL SCIENCE                      | 3-4101-010 | Waialeale UH    | 0.026                | 0.000         | 0.026        | 04/30/2016         |
| 812   | 11/13/2007 | Sean Ginella                                   | 3-4100-006 | Kawela Mauka    | 0.102                | 0.000         | 0.102        | 04/30/2016         |
| 861   | 11/18/1992 | Patricia L. Clark                              | 3-4002-006 | Sunset-Henry F  | 0.005                |               |              |                    |
| 881   | 08/25/2010 | Sean Ginella                                   | 3-3901-001 | Paumalu         | 0.300                |               |              |                    |
| 955   | 09/19/2012 | Ted Nakamura                                   | 3-3605-030 | Thurston 2011   | 0.024                |               |              | 04/30/2016         |
| <b>Summary for Kawaiioa (11 detail records)</b> |            |  |            |                 | <b>Total:</b>        | <b>1.838</b>  | <b>0.349</b> | <b>1.489</b>       |
|   |            |  |            |                 | <b>SY Available:</b> | <b>27.162</b> |              |                    |

 **Commission on Water Resource Management**  
Information Management System

Pending Water Use Permit

| WUPA No                               | Well No.   | Applicant              | Well Name      | mgd                            | Received   | Accept     |
|---------------------------------------|------------|------------------------|----------------|--------------------------------|------------|------------|
| <b>Aquifer System: 30403 Kawaiioa</b> |            |                        |                |                                |            |            |
| 1,015                                 | 3-3605-029 | Justin & Cynthia Smith | Kawaiioa Mauka | 0.002                          | 01/19/2016 | 01/19/2016 |
|                                       |            |                        |                | <b>1 WUPAs totalling 0.002</b> |            |            |

Number of Wells: 1

 **Commission on Water Resource Management**  
Information Management System

Incomplete Ground Water Use Permit Applications

| WUPA No                | Well No. | Applicant | Well Name | mgd | Received | Void |
|------------------------|----------|-----------|-----------|-----|----------|------|
| <b>Aquifer System:</b> |          |           |           |     |          |      |

WUPAs totalling  
WUPAs totalling

Number of Wells:

\*\*\*\*\* SUMMARY \*\*\*\*\*  
 \*\*\*\*\*  
 TMK : 61005020  
 SOILS: Ewa(0.110), waialua(0.585), waialua(0.305)

ANNUAL IRRIGATION REQUIREMENT (INCHES)

| ACRES           |      | WATER BUDGET COMPONENTS |        |        |        |        |        |        |        |      |     |    |    |
|-----------------|------|-------------------------|--------|--------|--------|--------|--------|--------|--------|------|-----|----|----|
|                 |      | NIR                     | GIR    | GAL_A  | G_RAIN | N_RAIN | ER     | ER21   | RO     | INT  | ETO | ET | DR |
| 36.3            | 42.7 | 1160.1                  | 38.6   | 30.0   | 28.0   | 26.7   | 1.0    | 7.7    | 64.4   | 64.4 | 2.0 |    |    |
| GIR STATISTICS  |      | MEAN                    | MED.   | XMAX   | XMIN   | 50%    | 80%    | 90%    | 95%    |      |     |    |    |
| inch/acre       |      | 42.721                  | 44.268 | 53.451 | 24.895 | 43.268 | 49.824 | 52.904 | 55.288 |      |     |    |    |
| Thou. gpd/acre  |      | 3.178                   | 3.293  | 3.977  | 1.852  | 3.219  | 3.707  | 4.113  | 4.496  |      |     |    |    |
| Total thou. gpd |      | 17.824                  | 18.469 | 22.301 | 10.386 | 18.052 | 20.787 | 22.072 | 23.067 |      |     |    |    |
| NIR STATISTICS  |      | MEAN                    | MED.   | XMAX   | XMIN   | 50%    | 80%    | 90%    | 95%    |      |     |    |    |
| inch/acre       |      | 36.313                  | 37.628 | 45.434 | 21.160 | 36.778 | 42.350 | 44.968 | 46.995 |      |     |    |    |
| Thou. gpd/acre  |      | 2.702                   | 2.799  | 3.380  | 1.574  | 2.736  | 3.151  | 3.345  | 3.496  |      |     |    |    |
| Total thou. gpd |      | 15.150                  | 15.699 | 18.956 | 8.828  | 15.344 | 17.669 | 18.761 | 19.607 |      |     |    |    |

Heliconia

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

MONTHLY IRRIGATION REQUIREMENT (INCHES)

| MO             |     | WATER BUDGET COMPONENTS |       |       |        |        |     |      |     |     |     |     |    |
|----------------|-----|-------------------------|-------|-------|--------|--------|-----|------|-----|-----|-----|-----|----|
|                |     | NIR                     | GIR   | GAL_A | G_RAIN | N_RAIN | ER  | ER21 | RO  | INT | ETO | ET  | DR |
| 1              | 1.1 | 1.3                     | 36.0  | 3.6   | 2.9    | 2.4    | 2.3 | 0.2  | 0.6 | 3.9 | 3.9 | 0.5 |    |
| 2              | 1.6 | 1.9                     | 51.4  | 2.9   | 2.4    | 2.3    | 1.9 | 0.0  | 0.5 | 4.2 | 4.2 | 0.1 |    |
| 3              | 2.4 | 2.8                     | 75.6  | 3.8   | 3.0    | 2.7    | 2.6 | 0.1  | 0.6 | 5.4 | 5.4 | 0.3 |    |
| 4              | 2.6 | 3.1                     | 83.7  | 3.1   | 2.4    | 2.4    | 2.3 | 0.0  | 0.7 | 5.8 | 5.8 | 0.1 |    |
| 5              | 4.2 | 5.0                     | 135.7 | 2.5   | 1.9    | 1.9    | 2.0 | 0.0  | 0.6 | 6.6 | 6.6 | 0.0 |    |
| 6              | 4.5 | 5.3                     | 145.3 | 2.4   | 1.7    | 1.7    | 1.9 | 0.0  | 0.7 | 6.5 | 6.5 | 0.0 |    |
| 7              | 4.4 | 5.2                     | 140.5 | 3.1   | 2.2    | 2.2    | 2.4 | 0.1  | 0.8 | 6.6 | 6.6 | 0.0 |    |
| 8              | 5.0 | 5.8                     | 158.7 | 2.0   | 1.4    | 1.4    | 1.6 | 0.0  | 0.6 | 6.0 | 6.0 | 0.0 |    |
| 9              | 4.6 | 5.4                     | 146.6 | 2.1   | 1.5    | 1.5    | 1.6 | 0.0  | 0.6 | 6.0 | 6.0 | 0.0 |    |
| 10             | 3.3 | 3.9                     | 104.5 | 3.4   | 2.5    | 2.5    | 2.4 | 0.2  | 0.7 | 5.2 | 5.2 | 0.0 |    |
| 11             | 1.5 | 1.8                     | 48.3  | 4.8   | 3.9    | 3.6    | 2.9 | 0.1  | 0.7 | 4.0 | 4.0 | 0.3 |    |
| 12             | 1.1 | 1.2                     | 33.7  | 4.9   | 4.0    | 3.4    | 2.9 | 0.1  | 0.7 | 3.7 | 3.7 | 0.7 |    |
| GIR STATISTICS |     | MEAN                    | MED.  | XMAX  | XMIN   | 50%    | 80% | 90%  | 95% |     |     |     |    |
| 1              | 1.3 | 1.0                     | 4.2   | 0.0   | 1.1    | 2.3    | 3.1 | 3.8  |     |     |     |     |    |
| 2              | 1.9 | 2.0                     | 4.3   | 0.0   | 1.7    | 2.9    | 3.6 | 4.2  |     |     |     |     |    |
| 3              | 2.8 | 3.1                     | 5.8   | 0.0   | 2.5    | 4.5    | 5.7 | 6.3  |     |     |     |     |    |
| 4              | 3.1 | 3.1                     | 6.6   | 0.1   | 2.9    | 4.6    | 5.6 | 6.5  |     |     |     |     |    |
| 5              | 5.0 | 5.4                     | 7.7   | 1.1   | 5.0    | 6.5    | 7.3 | 7.7  |     |     |     |     |    |
| 6              | 5.3 | 5.4                     | 7.4   | 1.1   | 5.5    | 6.5    | 7.1 | 7.5  |     |     |     |     |    |
| 7              | 5.2 | 5.4                     | 7.5   | 2.0   | 5.2    | 6.6    | 7.2 | 7.8  |     |     |     |     |    |
| 8              | 5.8 | 6.4                     | 7.6   | 2.1   | 5.9    | 7.0    | 7.5 | 7.7  |     |     |     |     |    |
| 9              | 5.4 | 5.5                     | 7.3   | 2.1   | 5.5    | 6.5    | 6.9 | 7.1  |     |     |     |     |    |
| 10             | 3.9 | 4.1                     | 6.4   | 0.7   | 3.9    | 4.9    | 5.4 | 5.8  |     |     |     |     |    |
| 11             | 1.8 | 2.0                     | 3.2   | 0.6   | 1.7    | 2.4    | 2.8 | 3.1  |     |     |     |     |    |
| 12             | 1.1 | 1.0                     | 3.2   | 0.0   | 1.1    | 2.2    | 2.8 | 3.1  |     |     |     |     |    |

EXHIBIT 6: IWREDSS CALCULATIONS

*citrus*  
*scs*

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\* SUMMARY \*  
\*\*\*\*\*

TMK : 61005020  
SOILS: Ewa(0.110), Waialua(0.585), Waialua(0.305)

ANNUAL IRRIGATION REQUIREMENT (INCHES)

| ACRES | UNIT   | WATER BUDGET COMPONENTS |      |       |                |        |        |        |        |         |        |        |     |  |
|-------|--|-------------------------|------|-------|----------------|--------|--------|--------|--------|---------|--------|--------|-----|--|
|       |  | NIR                     | GIR  | GAL_A | G_RAIN         | N_RAIN | ER     | ER21   | RO     | INT     | ET0    | ET     | DR  |  |
| 11.22 | inch/acre<br>Thou, gpd/acre<br>Total thou. gpd | 30.9                    | 36.3 | 987.0 | 38.6           | 28.7   | 21.5   | 24.7   | 1.0    | 8.9     | 64.4   | 52.4   | 7.2 |  |
|       |  |                         |      |       | GIR STATISTICS |        |        |        |        |         |        |        |     |  |
|       |  |                         |      |       | MEAN           | MED.   | XMAX   | XMIN   | 50%    | 80%     | 90%    | 95%    |     |  |
|       |  |                         |      |       | 36.349         | 36.215 | 44.291 | 25.261 | 36.790 | 40.603  | 42.342 | 43.666 |     |  |
|       |  |                         |      |       | 2.704          | 2.694  | 3.295  | 1.879  | 2.737  | 3.021   | 3.150  | 3.249  |     |  |
|       |  |                         |      |       | 15.165         | 15.110 | 18.479 | 10.539 | 15.349 | 16.940  | 17.665 | 18.218 |     |  |
|       |  |                         |      |       | NIR STATISTICS |        |        |        |        |         |        |        |     |  |
|       |  |                         |      |       | MEAN           | MED.   | XMAX   | XMIN   | 50%    | 80%     | 90%    | 95%    |     |  |
|       |  |                         |      |       | 30.896         | 30.783 | 37.647 | 21.472 | 31.271 | 34.512  | 35.990 | 37.116 |     |  |
|       |  |                         |      |       | 2.299          | 2.290  | 2.801  | 1.597  | 2.326  | (2.568) | 2.678  | 2.761  |     |  |
|       |  |                         |      |       | 12.890         | 12.843 | 15.707 | 8.958  | 13.047 | 14.399  | 15.016 | 15.485 |     |  |

*citrus*

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

MONTHLY IRRIGATION REQUIREMENT (INCHES)

| MO | NIR | WATER BUDGET COMPONENTS |       |                |        |      |      |     |     |     |     |     |  |
|----|-----|-------------------------|-------|----------------|--------|------|------|-----|-----|-----|-----|-----|--|
|    |     | GIR                     | GAL_A | G_RAIN         | N_RAIN | ER   | ER21 | RO  | INT | ET0 | ET  | DR  |  |
| 1  | 0.6 | 0.7                     | 19.0  | 3.6            | 3.0    | 1.9  | 2.1  | 0.2 | 0.5 | 3.9 | 2.6 | 1.1 |  |
| 2  | 1.1 | 1.3                     | 36.4  | 2.9            | 2.4    | 1.7  | 1.7  | 0.0 | 0.5 | 4.2 | 2.9 | 0.7 |  |
| 3  | 2.0 | 2.4                     | 65.0  | 3.8            | 3.0    | 2.1  | 2.3  | 0.1 | 0.7 | 5.4 | 4.1 | 0.9 |  |
| 4  | 2.5 | 2.9                     | 80.0  | 3.1            | 2.3    | 2.0  | 2.1  | 0.0 | 0.8 | 5.8 | 4.7 | 0.3 |  |
| 5  | 3.8 | 4.4                     | 120.4 | 2.5            | 1.7    | 1.5  | 1.8  | 0.0 | 0.7 | 6.6 | 5.5 | 0.2 |  |
| 6  | 4.4 | 5.1                     | 139.2 | 2.4            | 1.5    | 1.5  | 1.8  | 0.0 | 0.9 | 6.5 | 5.7 | 0.0 |  |
| 7  | 3.9 | 4.6                     | 125.4 | 3.1            | 2.0    | 1.9  | 2.2  | 0.1 | 1.0 | 6.6 | 5.9 | 0.2 |  |
| 8  | 4.5 | 5.3                     | 144.2 | 2.0            | 1.2    | 1.2  | 1.5  | 0.0 | 0.8 | 6.6 | 5.7 | 0.0 |  |
| 9  | 4.1 | 4.8                     | 131.1 | 2.1            | 1.3    | 1.2  | 1.5  | 0.0 | 0.7 | 6.0 | 5.1 | 0.1 |  |
| 10 | 2.5 | 3.0                     | 81.1  | 3.4            | 2.4    | 1.8  | 2.2  | 0.2 | 0.8 | 5.2 | 4.3 | 0.6 |  |
| 11 | 0.8 | 1.0                     | 27.1  | 4.8            | 3.8    | 2.5  | 2.7  | 0.1 | 0.8 | 4.0 | 3.2 | 1.3 |  |
| 12 | 0.6 | 0.7                     | 18.1  | 4.9            | 4.0    | 2.2  | 2.7  | 0.2 | 0.7 | 3.7 | 2.7 | 1.8 |  |
|    |     |                         |       | GIR STATISTICS |        |      |      |     |     |     |     |     |  |
|    |     |                         |       | MEAN           | MED.   | XMAX | XMIN | 50% | 80% | 90% | 95% |     |  |
|    |     |                         |       | 0.7            | 0.1    | 2.6  | 0.0  | 0.9 | 1.5 | 1.8 | 2.1 | 2.3 |  |
|    |     |                         |       | 1.3            | 1.3    | 3.0  | 0.0  | 1.4 | 2.1 | 2.5 | 2.8 | 3.0 |  |
|    |     |                         |       | 2.4            | 2.5    | 5.1  | 0.0  | 2.3 | 3.7 | 4.6 | 4.8 | 5.0 |  |
|    |     |                         |       | 2.9            | 2.7    | 5.3  | 1.2  | 2.8 | 4.1 | 4.8 | 5.4 | 5.6 |  |
|    |     |                         |       | 4.1            | 4.1    | 7.9  | 1.3  | 4.4 | 5.8 | 6.4 | 6.4 | 6.7 |  |
|    |     |                         |       | 5.1            | 5.4    | 6.9  | 1.2  | 5.2 | 6.3 | 6.6 | 6.7 | 6.9 |  |
|    |     |                         |       | 5.1            | 5.1    | 6.6  | 2.5  | 4.6 | 5.6 | 6.1 | 6.5 | 6.7 |  |
|    |     |                         |       | 5.3            | 5.3    | 6.9  | 2.7  | 5.4 | 6.3 | 6.6 | 6.7 | 6.9 |  |
|    |     |                         |       | 4.8            | 5.2    | 6.7  | 2.6  | 4.9 | 5.8 | 6.0 | 6.0 | 6.0 |  |
|    |     |                         |       | 3.0            | 2.7    | 5.2  | 0.0  | 3.0 | 3.9 | 4.4 | 4.7 | 4.7 |  |
|    |     |                         |       | 1.0            | 1.2    | 2.6  | 0.0  | 1.2 | 1.7 | 2.0 | 2.0 | 2.3 |  |

**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 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 monthly basis.
- 11. This permit shall be subject to the Commission's periodic review of the Kawailoa 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 Kawailoa 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 Kawailoa 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 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 **49** 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/cwrp/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.
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.

DAVID Y. HEE  
GOVERNOR  
STATE OF HAWAII

MIAMI S. TSUTSUMI  
GOVERNOR  
STATE OF HAWAII



JOHNS M. K. MASAGATANI  
CHAIRMAN  
HAWAIIAN HOMES COMMISSION

WILLIAM J. AHA, JR.  
DEPUTY CHAIRMAN

STATE OF HAWAII  
DEPARTMENT OF HAWAIIAN HOME LANDS

P. O. BOX 1879  
HONOLULU, HAWAII 96804

March 10, 2016

MEMORANDUM

TO: Suzanne D. Case, Chairperson  
Commission on Water Resource Management

FROM: Jobie M. K. Masagatani, Chairman  
Hawaiian Homes Commission

SUBJECT: Water Use Permit Application (WUPA) No. 01015  
Kawailoa Ground Water Management Area, Oahu

The Department of Hawaiian Home Lands (DHHL) reviewed the subject WUPA No. 01015 for Justin and Cynthia Smith, for Well No. 3-3605-029 (TMK (1) 6-1-005:020). We appreciate the opportunity to review this and offer the following background and comments.

Background

The following points serve as a context for our comments on this WUPA.

The State (and particularly the Commission on Water Resource Management (Commission)) has a duty to protect the rights of DHHL to water resources, as enumerated in the Hawaiian Homes Commission Act (HHCA) §§ 101(4), 220, 221; Hawai'i Constitution, Article XI, §§ 1 and 7 and Article XII, § 7; and Hawaii Revised Statutes (HRS) Chapter 174C, the State Water Code.

DHHL owns approximately 8,154 acres of land on the island of O'ahu, some of which do not currently have allocations or reservations of water (e.g., Nānākuli, Wai'anae, Ha'ikū). The update of the State Water Projects Plan (SWPP), now being

Ms. Suzanne D. Case, Chairperson  
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finalized, will estimate water demands on Hawaiian Home Lands and can serve as the basis for the Commission to secure reservations of water for DHHL.

Although DHHL has limited land holdings on Oahu, we have 13,793 applicants on the O'ahu Island wide waiting list, each of whom are entitled to a homestead. Fifty-five percent of all DHHL lessees are living on O'ahu. Thus, it is foreseeable that DHHL's needs for water to fulfill the purposes of the HHCA may exceed both its current reservations as well as any reservations calculated on the basis of projected water demands of our current land inventory.

Finally, we note all Water Use Permits (WUP) issued are subject to the rights of the DHHL. HRS § 174C-49(e). However, a method of reallocating water from an existing permit to DHHL has never been identified or implemented.

Comments for the applicant and Commission

We acknowledge the agricultural and domestic uses proposed for this new water use (0.002 mgd) are small. The Application, however, is incomplete in at least three areas. We believe this lack of completeness operates as a disservice to DHHL, the Commission, and ultimately to the applicant.

First, the applicant's response to Item No. 15 ("Water use will be minimized. No Hawaiian rights or environmental conditions will be jeopardized") provides no explanation for the conclusions offered. DHHL water reservations may be made for aquifers in which it does not hold land and the proximity of this well to DHHL lands does not necessarily have bearing on whether it will have an impact on the rights and interests of DHHL. Further, while most of O'ahu has an integrated island-wide water system, that larger system does not connect to this area. A more complete response would show consideration of this potential interference with DHHL rights by, amongst other things, including identification of DHHL's water reservations, available data on DHHL's water needs not yet protected by reservations, and DHHL's pertinent island and regional plans. Specific reference to planning documents is needed to support the conclusion that no applicable DHHL interests in water that may be affected by the applicant's proposed use exist at this time.

Ms. Suzanne D. Case, Chairperson  
Page 3  
March 10, 2016

Second, conclusory negative declarations in response to Items No. 14 and 16 failed to demonstrate sufficient inquiry into impacts on Native Hawaiian traditional and customary uses of water, including existing legal uses. Further detail concerning the "[e]nvironmental stewardship" that will be "in place[,] " and how any such stewardship plan has considered Native Hawaiian traditional and customary practices was required to ensure this Commission considered those practices, how they may be impacted by approving this WUPA, and the extent to which any adverse impacts could be mitigated. See *Ka Pa'akai o ka 'Aina v. Land Use Comm'n*, 94 hawaii 31, 7 P.3d 1068 (2000).

The applicants' proposed new uses of water are subject to requirements of "adequate provision" for traditional and customary, and other public interest and ecologically supportive uses. At minimum, the WUPA should identify potential and existing traditional and customary uses and efforts taken towards such identification.

Third, DHHL's Water Policy Plan (eff. Jul. 22, 2014), Part III(11) provides that DHHL shall "[e]nsure that all legal provisions for the licensing of state water are followed." DHHL shares with this Commission a concern that proposed agricultural groundwater uses support agricultural endeavors, and not proliferation of "gentleman's farms." The Smith lot lies in a State Agricultural Use District that was "subdivided" via laws permitting horizontal condominium property regimes (CPR). Should this lot become further "subdivided" - via CPR or other subdivision processes - we hope the Commission would revisit the proposed water use in this WUPA.

#### Conclusion

It is critical on O'ahu, and area with one of our highest demands for homesteads, that sufficient water be reserved for foreseeable needs of Hawaiian Home Lands. DHHL recommends, as is described in HRS §174C-101(a), the Commission's decision on this WUPA:

shall, to the extent applicable and consistent with other legal requirements and authority, incorporate and protect adequate reserves of water for current and foreseeable development and use of Hawaiian home lands

Ms. Suzanne D. Case, Chairperson  
Page 4  
March 10, 2016

as set forth in section 221 of the Hawaiian Homes  
Commission Act.

We also recommend the existing "FORM GWUPA-N (March 28,  
2014) be updated to require appropriate analysis by the  
applicant, so that the Commission staff is not forced to carry  
that burden solely and independently, as has been the case with  
this WUPA and previous ones.

Mahalo for the opportunity to comment on this WUPA. If you  
have any questions or require additional information, please  
contact Kaleo Manuel, Acting Planning Program Manager at (808)  
620 9485 or by email at: [Kaleo.L.Manuel@hawaii.gov](mailto:Kaleo.L.Manuel@hawaii.gov).

c: Justin and Cynthia Smith

PHONE (808) 594-1888



STATE OF HAWAII  
OFFICE OF HAWAIIAN AFFAIRS  
560 N. NIMITZ HWY., SUITE 200  
HONOLULU, HAWAII 96817

RECEIVED  
COMMISSION ON WATER  
RESOURCE MANAGEMENT

2016 MAR 14 PM 1:29

FAX (808) 594-1938

HRD16/7773

March 9, 2016

Suzanne Case, Chairperson  
Commission on Water Resource Management  
P.O. Box 621  
Honolulu, HI 96809

Re: Comments on "Water Use Permit Application Kawailoa Ground Water Management Area, Oahu" (WUPA No. 01015)  
Lauhulu Ahupua'a, Waialua Moku, O'ahu Moku  
Tax Map Key (2) 5-2-011:007

Aloha Chairperson Case:

The Office of Hawaiian Affairs is in receipt of your letter dated February 16, 2016, requesting comments on a water use permit application (WUPA) by applicants, Justin and Cynthia Smith (hereinafter the "Applicants"). The Applicants' WUPA requests 2,500 gallons per day (gpd) from the Kawailoa Well (Well No. 3-3605-029) located on TMK (1) 6-1-005:020, which draws water from the Kawailoa Mauka aquifer system. According to the documents provided, the 2,500 gpd requested would be used by the Applicants on their 3-acre parcel for a "[f]uture dwelling to be built at a later date"<sup>1</sup> and "[d]omestic irrigation"<sup>2</sup> comprised of "hedge plants and fruit trees along perimeter of property."<sup>3</sup>

OHA notes that the subject WUPA lacks critical information necessary for our agency's review and for the Commission on Water Resource Management (CWRM) to make a decision on the requested permit. The WUPA does not provide the sustainable yield of the Kawailoa Mauka system<sup>4</sup> and does not provide any information or analysis of the effect of this request on traditional and customary Native Hawaiian rights, rights of the Department of Hawaiian Home

<sup>1</sup> Justin and Cynthia Smith, Application for Ground Water Use Permit for Proposed New Use in a Designated Ground Water Management Area (Feb. 5, 2016), Table 1.

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*, Table 2.

<sup>4</sup> The WUPA does not identify the relevant Ground Water Management Area under "Source Information, Item 4." However, it appears that CWRM staff provided this information for the public notice and February 16<sup>th</sup> letter.

Suzanne Case, CWRM Chairperson  
 March 9, 2016  
 Page 2

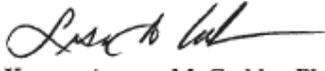
Lands, or existing legal uses. The WUPA also misstates the State Land Use District and County Zoning Code for the parcel, as “DOM” and “AG-5”, respectively.<sup>5</sup> According to Honolulu property records, the subject parcel is in the Agricultural District and is zoned as AG-1 Restricted Agricultural District. As relevant to the Applicants’ plans for a “future dwelling to be built at a later date”, we note that farm dwellings are a special accessory use in an AG-1 district,<sup>6</sup> whereby the number of farm dwellings shall not exceed one for each five acres of lot area.<sup>7</sup>

Finally, the “Alternatives Analysis” section of the WUPA is incomplete, especially as related to the review of municipal sources as an alternative to the use of ground water. According to Table 3 of the WUPA, “[e]xisting municipal source is in possession by adjacent neighbor. [Board of Water Supply (BWS)] permitting one meter for this TMK under existing layout (condo parcel).” By phone call to the BWS Service Engineering division, OHA staff was informed that BWS has a policy to only issue one meter per legal dwelling that is allowed on a parcel. BWS also has a process for segregation of a common water meter across two or more existing legally constructed dwellings on a property.<sup>8</sup>

Based on the above, we believe that the application requires updating and is not ready to be provided to CWRM for decision-making.

Mahalo for the opportunity to review and comment. If you have any questions, please contact Everett Ohta, OHA Lead Compliance Specialist, at 594-0231 or everetto@oha.org.

‘O wau iho nō me ka ‘oia ‘i‘o,

  
 Kamana'opono M. Crabbe, Ph.D.  
 Ka Puhana, Chief Executive Officer

KC:eo

C: Charley Ice, Commission on Water Resource Management

*\*Please address replies and similar, future correspondence to our agency:*

*Dr. Kamana'opono Crabbe  
 Attn: OHA Compliance Enforcement  
 560 N. Nimitz Hwy., Ste. 200  
 Honolulu, Hawaii 'i 96817*

<sup>5</sup> Smith WUPA, Table 1.

<sup>6</sup> Revised Ordinances of Honolulu (ROH), Chapter 21, Table 21-3 (available at [http://www.honolulu.gov/rep/site/ocs/roh/ROH\\_Chapter\\_21\\_art\\_3.pdf](http://www.honolulu.gov/rep/site/ocs/roh/ROH_Chapter_21_art_3.pdf)).

<sup>7</sup> ROH § 21-5.250 (available at [http://www.honolulu.gov/rep/site/ocs/roh/ROH\\_Chapter\\_21\\_art\\_4-6.pdf](http://www.honolulu.gov/rep/site/ocs/roh/ROH_Chapter_21_art_4-6.pdf)).

<sup>8</sup> Segregation form available at [http://www.boardofwatersupply.com/files/bws\\_segWaterService\\_app.pdf](http://www.boardofwatersupply.com/files/bws_segWaterService_app.pdf).

DEPARTMENT OF PLANNING AND PERMITTING  
**CITY AND COUNTY OF HONOLULU**  
 650 SOUTH KING STREET, 7<sup>TH</sup> FLOOR  
 PHONE: (808) 768-8000 • FAX: (808) 720-6841  
 DEPT. WEB SITE: [www.honolulu.gov](http://www.honolulu.gov) • CITY WEB SITE: [www.honolulu.gov](http://www.honolulu.gov)

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**MAR 10 PM 2:32**

KIRK CALDWELL  
MAYOR



GEORGE I. ATTA, FAICP  
 DIRECTOR  
 ARTHUR D. CHALLACOMBE  
 DEPUTY DIRECTOR

2016/ELOG-394 (TH)

March 9, 2016

Ms. Suzanne Case  
 Chairperson  
 Commission on Water Resource Management  
 Department of Land and Natural Resources  
 Kalanimoku Building  
 1151 Punchbowl Street  
 Honolulu, Hawaii 96813

Dear Chair Case:

SUBJECT: Water Use Permit Application (WUPA) No. 01015 for Justin and Cynthia Smith for Kawailoa Mauka Well No. 3-3605-029, Kawailoa Ground Water Management Area, Oahu, Tax Map Key (TMK): 6-1-005: 020

We have reviewed the subject application submitted by Justin and Cynthia Smith and offer the following comments:

1. The Applicant proposes to draw water from the Kawailoa Mauka Well No. 3-3605-029 located in Haleiwa, Oahu. The subject property is currently zoned AG-1 Restricted Agricultural District. Water wells are a permitted use in the AG-1 district and are considered a "utility installation, Type A" in accordance with Article 10 of the City's Land Use Ordinance, Chapter 21, Revised Ordinances of Honolulu (ROH).
2. The "AG-5" County Zoning Code listed in Column E of Table 1 for the TMK listed in Column B is incorrect. The City zoning is AG-1 Restricted Agricultural District.
3. The "DOM" (DOMESTIC) State Land Use District Code listed in Column C of Table 1 for the TMK listed in Column B is incorrect. The property's current State Land Use District designation is "Agricultural District" according to the State Land Use Commission and our records.
4. We have also reviewed the consistency of the water use categories with the county zoning designation in Table 1 of the Application. We find that the categories of water use in Column A and the comment in Column J are generally consistent with the City's AG-1 zoning district. We want to mention that any future dwelling on the property must be a "farm dwelling" in accordance with Article 10, of the Land Use Ordinance.

Ms. Suzanne Case  
March 9, 2016  
Page 2

5. The location of the Kawailoa Mauka Well No. 3-3605-029 is not in the Special Management Area (SMA), therefore, it is not subject to the SMA requirements of Chapter 25, ROH.
6. The Board of Water Supply (BWS) informed us that they "have no objections or comments" regarding the proposed request. However, please consult directly with the BWS for their official comments.

Thank you for the opportunity to comment on this matter. Should you have any questions, please contact Tim Hata of our staff at 768-8043.

Very truly yours,



George I. Atta, FAICP  
Director

GIA:js

cc: Nancy Matsumoto, Board of Water Supply

DAVID Y. IGE  
GOVERNOR OF HAWAII



SUZANNE D. CASE  
CHAIRPERSON

WILLIAM D. BALFOUR, JR.  
KAMANA BEAMER, PH.D.  
MICHAEL G. BUCK  
MILTON D. PAVAO  
VIRGINIA PRESSLER, M.D.  
JONATHAN STARR

JEFFREY T. PEARSON, P.E.  
DEPUTY DIRECTOR

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

February 16, 2016

TO: Mr. Daniel E. Orodnenker, Executive Officer  
Land Use Commission

FROM: *A* Suzanne D. Case, Chairperson *Suzanne D. Case*  
Commission on Water Resource Management

SUBJECT: WATER USE PERMIT APPLICATION  
Kawailoa Ground Water Management Area, Oahu

2016 FEB 17 A 7 11  
LAND USE COMMISSION  
STATE OF HAWAII

Transmitted for your review and comment is a copy of a water use permit application (WUPA No. 01015) for Justin and Cynthia Smith for Well No. 3-3605-029. Public notice of this application will be published in the Honolulu Star Advertiser issues of February 18, 2016 and February 25, 2016.

We would appreciate your review of the proposed use that is described in the attached application (i.e. line item 6 or Table 1). Specifically, we request that you inform us of the current state land use designation for the TMK parcel, or portion thereof, for the proposed use area(s) and, secondly, whether the current state land use designation is appropriate for the proposed project.

We have attached a TMK map(s) that covers the proposed use area(s). Where water is proposed for use on only a portion of a TMK parcel, or on parcels with multiple zoning, the proposed use area(s) has been clearly delineated on the attached map. **Please respond by returning this cover memo along with your review comments by March 10, 2016, which is the legal deadline for objections.** If we do not receive your comments by this date, we will assume you have no objections to this application.

If you have any questions, require additional information, or would like to request an extension of the review period for this application, please contact Charley Ice at 587-0218.

CI:ss  
Attachment(s)

Response:

- We have no objections or comments
- Objections attached
- Only comments attached

Contact person: Bert Sarunawari

Phone: 587-3822

Signed: *Bert Sarunawari*

Date: MARCH 9, 2016

RECEIVED  
COMMISSION ON WATER  
RESOURCE MANAGEMENT  
2016 MAR -7 PM 6:07



STATE OF HAWAII  
 DEPARTMENT OF LAND AND NATURAL RESOURCES  
 DIVISION OF AQUATIC RESOURCES  
 1151 PUNCHBOWL STREET, ROOM 330  
 HONOLULU, HAWAII 96813

SUZANNE D. CASE  
 CHAIRPERSON  
 BOARD OF LAND AND NATURAL RESOURCES  
 COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA  
 FIRST DEPUTY

JEFFREY T. PEARSON  
 DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
 BOATING AND OCEAN RECREATION  
 BUREAU OF CONSERVATION  
 COMMISSION ON WATER RESOURCE MANAGEMENT  
 CONSERVATION AND COASTAL LANDS  
 CONSERVATION AND RESOURCES ENFORCEMENT  
 ENGINEERING  
 FORESTRY AND WILDLIFE  
 HISTORIC PRESERVATION  
 KAHOOHAWE ISLAND RESERVE COMMISSION  
 LAND  
 STATE PARKS

March 9, 2016

DAR # 5234

MEMORANDUM

TO: Bruce Anderson, Administrator  
 DATE:  
 FROM: Glenn Higashi, Aquatic Biologist *GRH GH*

SUBJECT: Request for Comments: Water Use Permit Application (WUPA No. 01015) for Justin and Cynthia Smith well (Well No. 3-3605-029), Kawaioloa Ground Water Management Area, Oahu

| Comment | Date Request | Receipt  | Referral | Due Date |
|---------|--------------|----------|----------|----------|
|         | 02/16/16     | 02/17/16 | 02/18/16 | 03/10/16 |

Requested by: Jeffrey T. Pearson, P.E., Deputy Director  
 Commission of Water Resource Management

Summary of Proposed Project

Title: Request for Comments: Water Use Permit Application (WUPA No. 010154) for Justin and Cynthia Smith Kawaioloa Mauka well (Well No. 3-3605-029), Kawaioloa Ground Water Management Area, Oahu

Project by: Justin and Cynthia Smith

Location: Tax Map Key: (1) 6-1-005:020, Kawaioloa Ground Water Management Area, Oahu

Brief Description:

The applicant, Justin and Cynthia Smith's Kawaioloa Mauka well (Well No. 3-3605-029), proposes to withdraw 0.002 million gallons per day, averaged over 1 year, of ground water from existing Well No. 3-3605-029-001 in Kawaioloa System, North Shore, Oahu, Tax Map Key: (1) 6-1-005:020 for irrigation of hedge plants and fruit trees along perimeter of property.

Comments:

The Division of Aquatic Resources (DAR) has no objections to this request since the proposed project is not expected to have any significant adverse impact on aquatic resources values in the area as there are no streams

on the property. However, a pump test and monitoring of this well should be performed to determine if there are cumulative impacts on the Ukoa Pond wetland within the Kawailoa Groundwater Management Area with this and other multiple projects tapping this aquifer.

Thank you for providing DAR the opportunity to review and comment on the proposed project. Should there be any changes to the project plans, DAR requests the opportunity to review and comment on those changes.



DAVID Y. IGE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING  
601 KAMOKILA BLVD, STE 555  
KAPOLEI, HAWAII 96707

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2016 FEB 29 AM 8:27

SUZANNE D. CASE  
COMMISSIONER  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
KERIKA KALUETWA  
FIRST DEPUTY  
JEFFREY T. PEARSON  
ACTING DEPUTY DIRECTOR - WATER  
AQUATIC RESOURCES  
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KAOLOAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

February 17, 2016

Jeffrey T. Pearson, Deputy Director  
Commission on Water Resource Management  
Department of Land and Natural Resources, P.O. Box 621  
Honolulu, HI 96809

Log No. 2016.00362  
Doc No. 1602GC13  
Archaeology

Dear Mr. Pearson:

SUBJECT: **Chapter 6E-42 Historic Preservation Review  
Water Use Permit Application (WUPA No. 01015)  
Request for Comments for Well No. 3-3605-029  
Lauhulu Ahupua'a, Waialua District, Island of O'ahu  
TMK: (1) 6-1-005:020**

Thank you for the opportunity to review and provide comments on this Water Use Permit Application (WUPA No. 01025) for Justin and Cynthia Smith for Well No. 3-3605-029, located within the 11-acre parcel identified as TMK: (1) 6-1-005:020. SHPD received this submittal on February 17, 2016. The submittal indicates that this Water Use Permit would facilitate domestic uses and domestic irrigation for approximately one acre of hedge plants and fruit trees around the perimeter of the property.

SHPD records indicate that the subject parcel was part of a larger archaeological inventory survey (AIS) conducted by *ASM Affiliates within TMK: (1) 6-1-005 multiple, 6-1-006 multiple, in support of First Wind's Kawailoa Solar Power Project* (Rechtman and Clark 2011). This study identified 17 historic properties consisting mainly of former military operations (Sites 7155-7158) and plantation activities (Sites 7157-7171). The report indicated that sufficient information was documented and recommended no further work. Archaeological monitoring for *First Wind Power Project was conducted by ASM Affiliates* (Rechtman 2012). The monitoring report identified a historical refuse pit dating to the mid-1900s which was recorded and no further work was recommended for the project area. The SHPD accepted the monitoring report on June 24, 2013 (Log No. 2012.3352, Doc. No. 1306NN19). None of the sites identified during the AIS occur within TMK: (1) 6-1-005:020. In addition, aerial photographs in our Geographical Information system (GIS) indicate that agricultural activities have extensively altered the project area. The USDA identifies the soil as Wailua silty clay (WIB) and Waialua stony clay (WkB) (Foote et al. 1972).

Based on the information above, SHPD's determination is **no historic properties affected**.

Please attach to permit: In the unlikely event that subsurface historic resources, including human skeletal remains, structural remains, cultural deposits, artifacts, sand deposits, or sink holes are identified during the demolition and/or construction work, cease work in the immediate vicinity of the find, protect the find from additional disturbance, and contact the State Historic Preservation Division at (808) 692-8015.

Please contact me at (808) 692-8019 or at [Susan.A.Lebo@hawaii.gov](mailto:Susan.A.Lebo@hawaii.gov) if you have any questions about this letter.  
Aloha,

*Susan A. Lebo*

Susan A. Lebo, PhD  
Archaeology Branch Chief

cc: Charley Ice, CRWM ([Charley.F.Ice@hawaii.gov](mailto:Charley.F.Ice@hawaii.gov))