



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

COMMISSION ON WATER RESOURCE MANAGEMENT

April 17, 2014

STAFF SUBMITTAL

Villa Rose Farm, Inc.
APPLICATION FOR A WATER USE PERMIT
Villa Rose Farm (Well No. 3-3104-004), TMK (1) 6-5-002:005, WUP No. 00986
New Potable Use for 0.315 mgd
Wahiawa Ground Water Management Area, Oahu

APPLICANT:

Villa Rose Farm, Inc.
Rural Route 5
P.O. Box 1250
Seymour, ID 47274

LANDOWNER:

Villa Rose Farm, Inc.
Rural Route 5
P.O. Box 1250
Seymour, ID 47274

SUMMARY OF REQUEST:

The Applicant Villa Rose Farm, Inc. requests a Water Use Permit for **0.315** million gallons per day (mgd) of **potable** high-level ground water from a **new** well in the Wahiawa Aquifer System to supply both agricultural uses (an egg farm of up to 1 million hens, with sanitary facilities for animals and egg processing) and urban / human demand (100 workers with potable and sanitary requirements).

LOCATION MAP: Wahiawa Aquifer System. See Exhibit 1

BACKGROUND:

December 20, 2013 Applicant Villa Rose Farm, Inc. submitted an incomplete water use permit application.

January 28, 2014 Staff accepted Villa Rose's application, following documentation of the actual landownership. Additional information regarding the source, use, notification, objections, and field investigation(s) is provided in Attachment A. The water use permit application was **not** accompanied by a well

construction/pump installation permit application.

February 12&19, 2014 Public notice for this application published in the Honolulu Star-Advertiser on these dates. The deadline for comments and objections was March 5, 2014. No objections were received.

ANALYSIS/ISSUES:

The Hawaii Water Code, Haw. Rev. Stat. § 174C-49(a), establishes seven (7) minimum criteria to obtain a water use permit.

(1) Water availability

Through the Hawaii Water Plan, the Commission on Water Resources Management (“Commission”) established the sustainable yield for the Wahiawa Aquifer System Area as 23 mgd. Individual existing water use permits in this aquifer system area are shown in Exhibit 2. A summary of the current ground water conditions in the aquifer is provided in Table 1:

Table 1. Wahiawa Aquifer System Area

<u>ITEM</u>	Wahiawa Aquifer System Area (mgd)
Sustainable Yield	23
Less: Other Existing Water Use Permits (shown in Exhibit 2)	22.663
Reservation to DHHL	0
Subtotal (Current Available Allocation)	0.337
Less: Other Completed Applications (shown in Exhibit 3)	0
Less: This Application	0.315
Subtotal (Potential Available Allocation/Allocation Deficit)	0.025

Water use reporting indicates approximately 8 mgd over the past four years is being pumped (see Exhibit 4). There is approximately 0.337 mgd that has not yet been permitted within the approved sustainable yield. *If this application is approved, 22.978 mgd of the authorized 23.0 mgd will be allocated. Only 0.025 mgd of the 23.0 mgd will remain unpermitted.*

(2) Reasonable-beneficial

Haw. Rev. Sec. §174C-3 defines "reasonable-beneficial use" as

. . . [T]he 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 requests potable high-level ground water to support the egg production operations and water and sanitation for up to 1 million animals at a high level of nutrition and hygiene, egg washing, and worker potable drinking and sanitation uses. No water is proposed for landscaping.

Wastewater reuse or, alternatively, surface water from the Wahiawa Ditch System or the intermittent Kaukonahua Stream will be used for landscaping, if any. This is consistent with Haw. Rev. Stat. §174C-2(c) that provides the Water Code shall be liberally interpreted to obtain maximum beneficial use of the waters of the State for various purposes including industrial and irrigation uses.

II. Quantity Justification

The Applicant requests **0.315** mgd based upon industry standards. The project is a joint venture of two large continental U.S. egg producers.

III. Efficiency of Use

The Applicant states that its operations are as water efficient as possible because modern commercial agricultural operations enforce high efficiencies.

IV. Analysis of Practical Alternatives

The Applicant identified one possible alternative water source: service from Poamoho Well A (3205-002) (Kaala View Farm Lots). The proposed egg farm is not within the normal service area of this well under WUP 175 (the Kaala View Farm Lots are approximately two miles away). If Poamoho Well A (3205-002) water is to be used, the existing WUP 175 would need to be modified. Other alternatives were considered.

1. Municipal – not cost effective
2. Surface Water – not satisfactory for commercial food operations
3. Wahiawa Ditch - not satisfactory for commercial food operations
4. Desalting – not cost effective

The 2000 Legislature amended the Water Code to include a new section, Haw. Rev. Stat. §174C-51.5 that provides the Commission may require dual line (potable and non-potable) water supply systems in new industrial and commercial (including commercial agriculture) 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 potable system. Wastewater reuse is proposed as one alternative for irrigation uses, which are completely separate from commercial food production.

(3) Interference with other existing legal uses

There is one other well (Well No. 3103-001) currently in use within 1 mile of this proposed source. Well No. 3103-001 provides potable water for irrigating Agribusiness Development Corporation (ADC) projects under WUP 976. Pump test data for this well shows high pumpage capability of fairly cool water with very low chlorides. Well No. 3103-001 was only recently transferred from Dole to ADC. It has reported no significant pumping in the last 4 years. No interference with this existing well is anticipated. This high-level aquifer does not have salinity upconing issues. The high natural recharge (188 mgd) compared with low sustainable yield (23 mgd) was established in the 1990 water resource protection plan to accommodate spill-over to the adjacent North and Pearl Harbor Aquifer Sectors Areas.

(4) Public interest

Public interest is defined under Haw. Rev. Stat. §174C-2 - Declaration of policy

- (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.*

The proposed agricultural use: 1) is consistent with the approved land use and plans in this area (see criteria 5 & 6); 2) meets the reasonable and beneficial test (see criteria 2); and 3) can be accommodated within the available sustainable yield (see criteria 1). The proposed

Villa Rose Egg Farm seeks to maximize efficient water use and a high level of sanitation for animals and people. It limits the application of pesticides and fertilizers that would impact its food production. Reclaimed or wastewater would be used for irrigation, fertilizer, and energy. The project will install a photovoltaic facility. This application meets the beneficial use test.

There are adequate provisions in the standard conditions to protect traditional and customary Hawaiian rights, to provide for the protection and procreation of fish and wildlife, and proper ecological balance given the natural ecology of an area in its current state. The area has been disturbed for agricultural practices for nearly a century. Adverse effects, if any, can be limited or mitigated.

The Wahiawa plain has been disrupted from its natural habitat for over a hundred years for plantation agriculture. Adjacent Kaukonahua Stream was disrupted by construction of the Wilson Reservoir, spread of invasive species within the stream channel, and runoff from agricultural pesticide and fertilizer applications. Any native gathering practices ceased in this long ago, although native plantings could be restored. County discharges into Lake Wilson are in the process of being changed. Flows into Kaukonahua Stream are intermittent with heavy rainfall. The bulk of former natural flows are diverted to the Wahiawa Irrigation Ditch aligned with Kaukonahua Road toward Mokuleia and Waialua.

This area on the crown of the Oahu isthmus is recognized as long-term agriculture land. This is an important public interest. This application will limit and mitigate adverse effects of agriculture on ecological and cultural considerations.

No traditional or customary practices have been identified for this area. No contrary comments have been received. .

Therefore, this application meets the public interest test.

(5) State and County general plans and land use designations

State land use district classifications and county zoning direct how land may be used. This Project and application is consistent with existing land use district and county zoning requirements.

The following agencies reviewed this application.

- 1) State Department of Land and Natural Resources (DLNR) and its State Parks, Aquatic Resources, Historic Preservation, and Land Divisions; Department of Health (DOH) with its Clean Water, Safe Drinking Water, and Wastewater Branches; Department of Hawaiian Home Lands (DHHL), and Land Use Commission (LUC); and Office of Hawaiian Affairs (OHA);

- 2) Office of the Mayor, Department of Planning and Permitting, and Department/Board of Water Supply.

The DLNR Aquatics Division recommends Best Management Practices to prevent wind- or water-borne detritus from poultry or other operations from escaping into the Kaukonahua Stream environment. This comment is addressed in a recommended special condition below.

Historic Preservation inquired about the Land Court Awards on the TMK maps. The landowner has not yet responded to this question. The acreage has been in plantation agriculture for several generations.

The proposed uses are in the State **Agriculture** District. Agriculture has long been a staple economic activity in Hawaii. A large portion of the allocated land is reserved for agriculture. The proposed use is in the Agriculture district and long used for commercial agriculture. With the loss of plantation agriculture, diversification and especially food production for local markets has become an important emphasis in Hawaii.

The proposed use is consistent with these land use designations. Eggs are mostly imported. There has been little local production. There is great public support for more locally-based food supplies.

Therefore, this application meets the state and county general plans and land use designations criteria.

(6) County land use plans and policies

County land use plans may be more restrictive and policies may provide further guidance to the proper arrangements of land uses or restrictions on land use. The county zoning is AG-1, which allows for the proposed use. The lands in question lie outside the boundaries of urban development and are centered in an area long used for agriculture.

Office of the Mayor, Department of Planning and Permitting and the Department/Board of Water Supply had no comments or objections. .

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

(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 (OHA) reviewed this application. They have no objections. However, DHHL's current strategic water planning

for Oahu indicates it may request additional reservations of water. At present, Hawaiian home lands have been served by reservations from areas outside the areas of use and by the Honolulu Board of Water Supply. The Commission has an affirmative responsibility to reserve water for the foreseeable needs of Hawaiian home lands as identified by DHHL. Haw. Rev. Stat. §174C-49(d). Commission staff has reviewed outstanding water use permits for revocation due to four years non-use. There is sufficient capacity on Oahu to accommodate DHHL's anticipated reservations requests.

Standard water use permit conditions 3.g., 6, and 9.f. notify all water use permitted that their permits are subject to and may not interfere with Hawaiian home land rights.

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

(8) Other issues

I. Chapter 343 – Environmental Assessment (EA) Compliance

EA Triggers

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

An environmental site assessment was conducted. There were no significant environmental impairments located on the property. As a general matter, most former pineapple and sugar lands in central Oahu may have residual elements of chemicals used during the plantation era. There is a history of ground water contamination in the overall region from a variety of sources that have found trichloroethylene (TCE) and/or pineapple pesticides ethylene dibromide (EDB) and dibromochloropropane (DBCP). If contaminants are found in the proposed well in excess of allowable limits, the well operator will construct remedial facilities to strip volatile compounds before using the water.

Cumulative Impacts HAR §11-200-8.B.

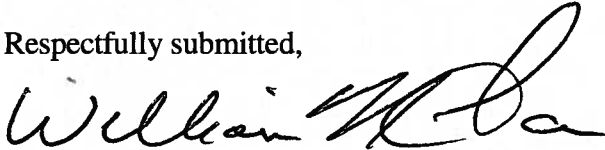
Even where a categorical exemption covers a proposed action, the action may not be exempt if the cumulative impact of planned successive action in the same place, over time, is significant, or when an action that is normally insignificant in its impact on the environment may be significant in a particularly sensitive environment.

RECOMMENDATION:

Staff recommends that the Commission **approve** a ground water use permit No. 00986 to Villa Rose Farm, Inc. for the reasonable and beneficial use of 0.315 million gallons per day of potable water from the Villa Rose Farm (Well No. 3-3104-004), subject to the standard water use permit conditions listed in Attachment B and the following special conditions:

1. In the event that the tax map key at the location of the water use is changed, the permittee shall notify the Commission in writing of the tax map key change within thirty (30) days after the permittee receives notice of the tax map key change.
2. The permittee shall use Best Management Practices to prevent the escape of wind- or water-borne detritus from project operations into the adjacent stream environment.
3. Should reused waste water, reclaimed stormwater, or other non-potable water become available for use on or near this property, the Applicant shall investigate and report to the Commission on the feasibility of using such alternative sources. If alternative sources are feasible, the Commission reserves the right to require the Applicant to change its use under this permit and employ the alternative sources.

Respectfully submitted,



WILLIAM M. TAM
DEPUTY DIRECTOR

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

Exhibit(s): 1 Location Map
 2 Existing Water Use Permits and 12-Month Moving Average Withdrawal
 3 Pending Water Use Permit Applications
 4 12-MAV pumpage from Wahiawa Aquifer System Area

APPROVED FOR SUBMITTAL:



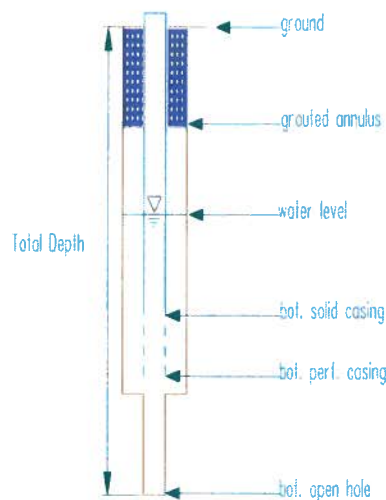
WILLIAM J. AILA, JR.
CHAIRPERSON

WATER USE PERMIT DETAILED INFORMATION

Source Information

AQUIFER:	Wahiawa System, Central Sector, Oahu
Sustainable Yield:	23 mgd
Existing Water Use Permits:	13 mgd
Available Allocation:	0.337 mgd
Total other pending applications:	0 mgd
This application:	0.315 mgd

WELL:	Villa Rose Farm (Well No. 3-3104-004)
Location:	Wahiawa, Oahu, TMK: (1) 6-5-002:005
Year Drilled:	
Casing Diameter:	in.
<u>Elevations</u> (msl= 0 ft.)	
Water Level:	ft.
Ground:	ft.
Bottom of Solid Casing:	ft.
Bottom of Perforated:	ft.
Bottom of Open Hole:	ft.
Total Depth:	ft.
Grouted Annulus Depth:	ft.
Pump Capacity	gpm



Use Information

Quantity Requested:	0.315 gallons per day
New Type of Water Use:	potable
Place of Water Use:	TMK: (1) 6-5-002:005
Reported Water Usage:	gpd
Nearby Similar Water Usage:	gpd
Wahiawa Aquifer System	
Current 12-Month Moving Average Withdrawal (See Exhibit 2):	8.833 mgd

Nearby Surrounding Wells and Other Registered Ground Water Use

There is one other well within a mile of the well (see Exhibit 1), currently in use. Information from the registration program indicates there are possibly 19 existing production wells in the Wahiawa Aquifer System, for municipal, irrigation, or military use.

Public Notice

In accordance with HAR §13-171-17, public notice was published in the Honolulu Advertiser on 02/12/2014 and 02/19/2014 and a copy of the notice was sent to the Office of the Mayor. Copies of the completed application were sent to the Department/Board of Water Supply, Department of Land Utilization, Department of Health, Department of Hawaiian Home Lands, Office of Hawaiian Affairs, the various divisions within the Department of Land and Natural Resources, and other interested parties for comments. Written comments and objections to the proposed permit were to be submitted to the Commission by **March 5, 2014**.

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 5, 2014**.

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

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 flow meter(s) **needs to** be installed to measure monthly withdrawals and a monthly record of withdrawals, salinity, temperature, and pumping times must be kept and reported to the Commission on Water Resource Management on forms provided by the Commission on a **monthly** basis.
11. This permit shall be subject to the Commission's periodic review of the Wahiawa 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 Wahiawa 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 Haw. Rev. Stat. § 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 Haw. Rev. Stat. § 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 this is caused by a declaration of

- water shortage pursuant to Haw. Rev. Stat. § 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 Wahiawa 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 Haw. Rev. Stat. § 174C or HAR § 13-171 may result in the suspension or revocation of this permit.

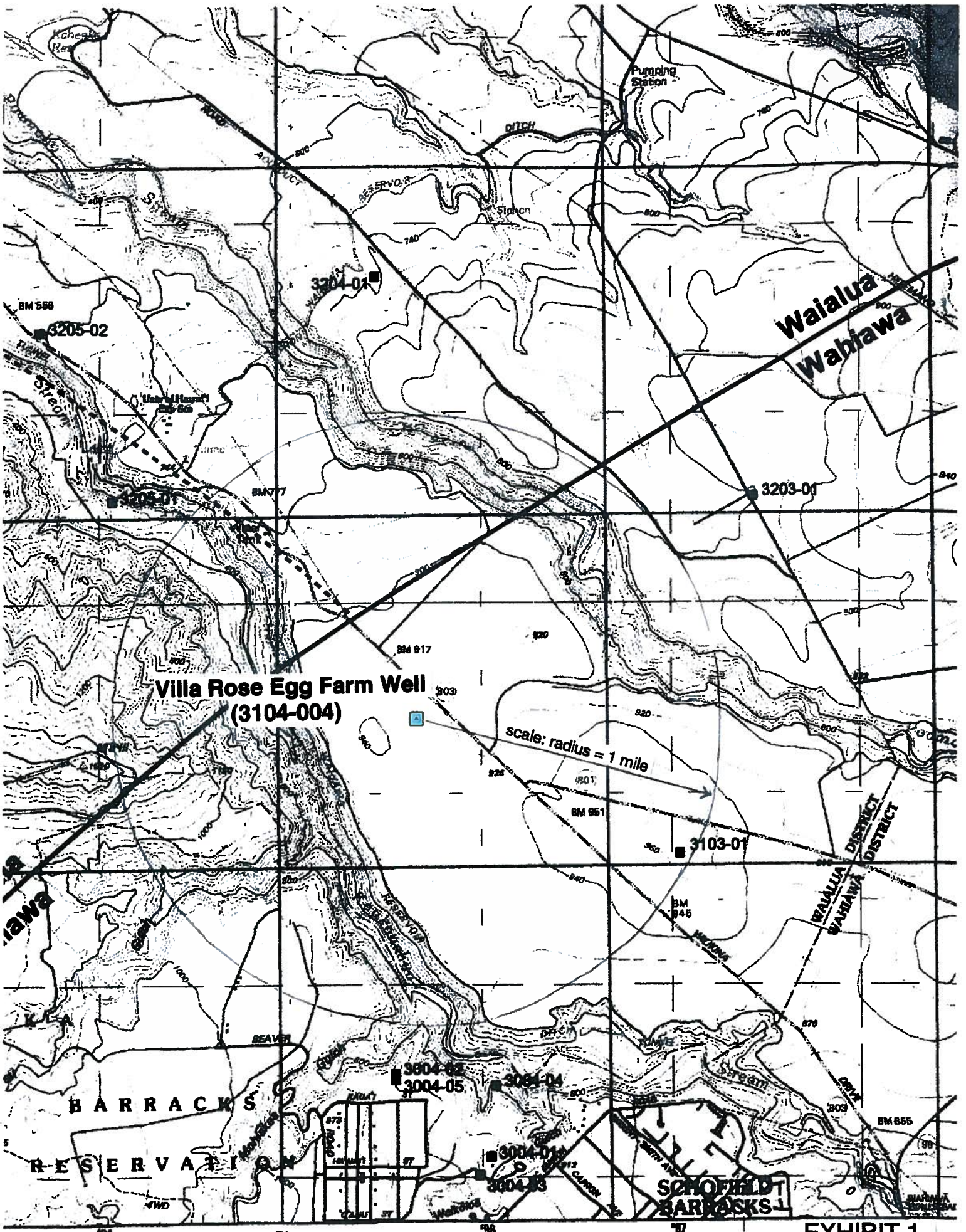


EXHIBIT 1

Report Parameters

Island: Oahu
 Applicant: All
 Well # Prefix: All
 Date: 01/01/1980 04/04/2014 (CWRM Action Date Between)
 Aquifer: 30501 Wahiawa
 TMK: All
 Aquifer Type: 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: 30501 Wahiawa
Sustainable Yield (mgd): 23

WUP No	Approved	Permittee	Well No	Well Name	WUP (mgd)	12-MAV (mgd)	Diff (mgd)	Date Last Reported
32	06/02/1993	Waiialua Sugar Company, Inc.	3-3102-002	Helemano Pump 24	2.580			
138	07/19/1995	Waiialua Sugar Company, Inc.	3-3203-002	Waiialua Pump 26	1.720	0.000	1.720	06/30/1996
484	05/14/1997	Directorate of Public Works, Environmental Div., DPW, U.S. Army Garrison	3-2901-002	Schofield Batt	5.648	3.060	2.588	12/31/2013
			3-2901-003	Schofield Batt				
			3-2901-004	Schofield Batt				
			3-2901-010	Schofield Batt				
598	05/17/1989	Board of Water Supply, BWS	3-2902-001	Wahiawa II-1	1.000	0.833	0.167	12/31/2013
			3-2902-002	Wahiawa II-2		0.000		12/31/2013
765	07/12/2006	Sandwich Isles Communications	3-2801-003	SIC-01	0.100	0.000	0.100	12/31/2013
826	02/21/2008	Kelena Farms LLC	3-3203-001	Helemano Pump 25	1.442	0.816	0.626	03/03/2014
842	01/11/2008	Board of Water Supply, BWS	3-2901-008	Wahiawa I-3	3.270	2.218	1.052	12/31/2013
			3-2901-009	Wahiawa I-2				
			3-2901-011	Wahiawa I-1		0.000		12/31/2013
876	02/17/2010	Alii Turf Co., LLC	3-3001-001	Alii Turf	0.115	0.029	0.086	03/01/2014
879	02/17/2010	Hawaiian Earth Products	3-3104-002	HEP-1	0.355			
880	06/20/2001	Kunia Water Association, Inc	3-2803-005	Del Monte Pump 3	3.960	0.943	2.514	03/10/2014
			3-2803-007	Del Monte Pump 4		0.503		03/10/2014
896	08/25/2010	Brent Cullinan	3-3104-003	Brent's	0.029			
899	01/20/2011	U.S. NAVFAC Hawaii	3-3100-002	NAVFAC Wahiawa Deep	0.444	0.431	0.013	12/31/2013
976	11/20/1987	Agribusiness Development Corporation, ADC	3-3103-001	Del Monte Pump 5	2.000	0.000	2.000	03/31/2014
Summary for Wahiawa (20 detail records)					Total:	22.683	8.833	13.830
					SY Available:	0.337		

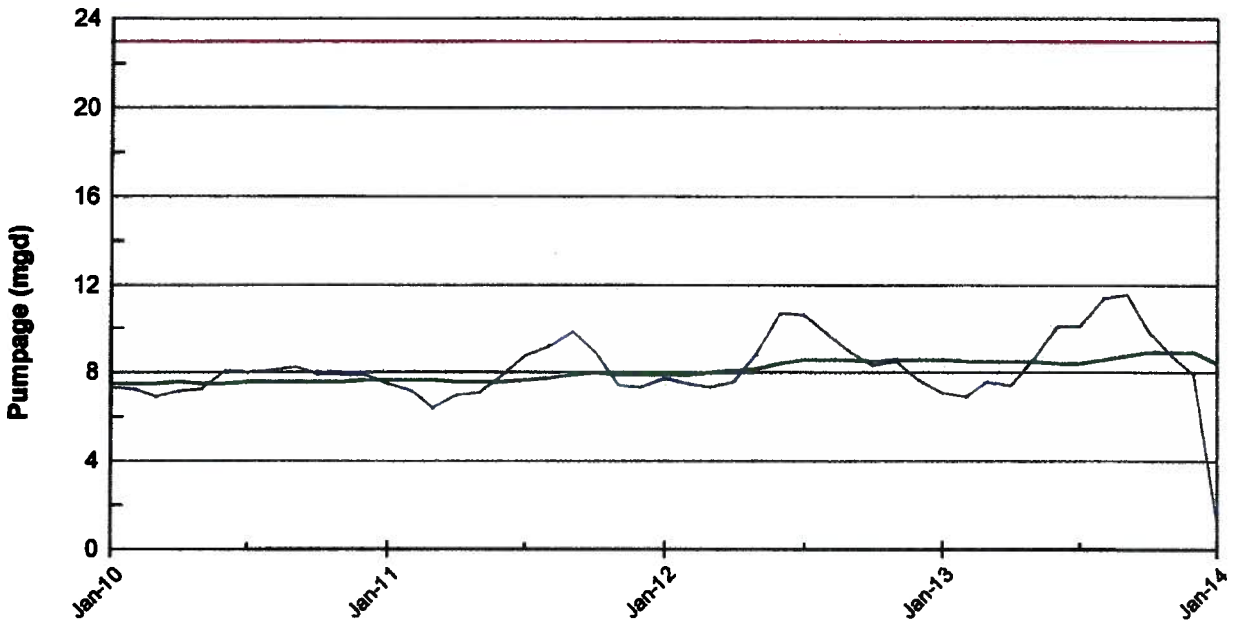
EXHIBIT 2

WUPA No	Well No.	Applicant	Well Name	mgd	Received	Accept
Aquifer System: 30501 Wahiawa						
986	3-3104-004	Villa Rose Farm, Inc.	Villa Rose Farm	0.315	12/20/2013	01/28/2014
				1 WUPAs totalling 0.315		

Number of Wells:
1
EXHIBIT 3
EXHIBITS 2 & 3



Monthly Pumpage Chart 12 Month Moving Average



Report Parameters

Date	01/01/2010 - 01/01/2014
Island	Oahu
Aquifer	30501 Wahiawa
Well Owner	All
Well Reporter	All
TMK	All
Well # Prefix	All
Aquifer Type	All
Well Use	All