



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

January 15, 2019
Honolulu, Oahu

Oceanwide Resort Paradise HI LLC
APPLICATION FOR GROUND WATER USE,
WELL CONSTRUCTION AND PUMP INSTALLATION PERMITS
Atlantis 1, 2 and 3 wells (Well Nos. 3-2007-005, -006 & -007), TMK (1) 9-1-057:006, WUP No. 1082
New Industrial (saltwater aquarium and aquaventure) Use for 0.720 mgd
Makaīwa Ground Water Management Area, Oahu

APPLICANT:

Oceanwide Resort Paradise HI LLC
1099 Alakea Street, Suite 2400
Honolulu, HI 96813

LANDOWNER:

Oceanwide Resort Paradise HI LLC
1099 Alakea Street, Suite 2400
Honolulu, HI 96813

SUMMARY OF REQUEST:

The applicant requests approval of a water use permit for an allocation of 0.720 million gallons per day (mgd) of saltwater from three proposed wells to supply aquarium and aquaventure features.

LOCATION MAP: See Exhibit 1

BACKGROUND:

Oceanwide Resort Paradise HI LLC submitted completed water use permit and well construction permit applications, on November 15, 2018. Additional information regarding the source, use, notification, and objection is provided in Exhibit 2.

On November 30, 2018 and December 7, 2018, the public notice for this application was published in the Star Advertiser. This public notice is reproduced in Exhibit 3.

On December 10, 2018, the Board of Water Supply submitted comments about the well construction (refer to Exhibit 9).

On December 21, 2018, the Department of Hawaiian Homelands submitted an objection to this application (refer to Exhibit 9).

On December 28, 2018, Tom Nance Water Resource Engineering filed a brief in support (refer to Exhibit 9).

ANALYSIS/ISSUES:

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

(1) Water availability

Through the Hawai‘i Water Plan, the Commission has not yet adopted a sustainable yield for the Makaīwa Aquifer System Area (MASA) hydrologic unit. The draft Water Resource Protection Plan proposes a sustainable yield of <1 mgd. The reason for this is that the estimate of recharge is 0.5 mgd, but other ground water management areas have sustainable yields to whole number accuracy. For consistency, Makaīwa Aquifer System Area (MASA) wouldn’t be given a fractional sustainable yield. Regardless, there is only one other water use permit in Makaīwa Aquifer System Area (MASA) (see Exhibit 4), and it’s another saltwater allocation that also doesn’t deduct from the sustainable yield. A summary of the current ground water conditions in the aquifer is provided in Table 1:

Table 1. Makaīwa Aquifer System Area

<u>ITEM</u>	Makaīwa Aquifer System Area (mgd)
Sustainable Yield	<1 (prop.)
Less: Other Existing Water Use Permits (shown in Exhibit 4)	0
Reservation to DHHL	0
Subtotal (Current Available Allocation)	0
Less: Other Completed Applications (shown in Exhibit 5)	0
Less: This Application	0.72
Subtotal (Potential Available Allocation/Allocation Deficit)	n/a

Because this application is also saltwater and will be constructed according to the Hawai‘i Well Construction and Pump Installation Standards (HWCPIS, 2004) to take only saltwater, there is adequate water available to accommodate the requested quantity.

(2) Reasonable-beneficial

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

"...the use of water in such a quantity as is necessary for economic and efficient utilization, for a purpose, and in a manner which is both reasonable and consistent with the state and county land use plans and the public interest".

I. Purpose of Use

The applicant is requesting the use of salt water for aquarium and aquaventure water features. These are considered commercial uses of water. 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 commercial uses.

II. Quantity Justification

The applicant is requesting a total of 0.720 mgd for aquarium and aquaventure water features (refer to Exhibit 5 for total use request summary). Regarding the quantity of use, the applicant states the following:

The saltwater supply wells under normal operating conditions are being designed to provide a constant flow of 350-400 gpm. This water is directly distributed to various locations throughout the site for aquarium fill, makeup, and flowthrough. When an aquarium exhibit water level is low and needs a quick fill (after filter backwash and/or extensive evaporation), the Well system is design[ed] to ramp up to 600 gpm until levels are normal. Under normal operation, the daily saltwater from well is estimated to be 350 gpm X 60 min x 24 hour/day = 504,000 gpd. When there is filter backwash, the daily water usage is estimated to be 720,000 gpd. The backwash will be conducted every four days. To improve water usage efficiency and save energy, variable speed drives will be installed on the saltwater supply well pumps to ramp the flow rate up and down to meet the water demand. In order to re-use the saltwater and minimize the waste as much as possible, extensive and complicated water treatment systems will be used: the saltwater will be circulated thru filtration and biological control systems, which include sand filters, protein skimmers, ozone sanitation and stripping/aeration tower. Because Some of the smaller exhibit tanks have lower water quality than these big tanks, these small tanks will utilize the wastewater from the big tanks to save water. Furthermore, a central control system will be used to monitor the operation of the water treatment systems and pumping system to precise control the water supply, discharge, temperatures and quality.

Regarding disposal of effluent water, the applicant states the following:

There are two ways water can exit an exhibit: through an overflow standpipe, or by backwashing the filters. Under both conditions, all water exiting an exhibit is piped to a common Backwash Collection Tank. No water exiting a saltwater exhibit will go directly to the injection Wells. Once in the Backwash Tank, water will then be filtered and discharged to the injection Wells. Filtration will be accomplished using High Rate Sand Filters. The media used in sand filters is capable of filtering down to 10 micron[s].

Ultimately, the goal is to return the water to the injection wells with the same or better quality than what is being supplied from the ground.

III. Efficiency of Use

The applicant speaks to the efficiency of use in the description above.

IV. Analysis of Practical Alternatives

The applicant has identified no alternatives to the proposed use of salt water, as there are no municipal, wastewater, ditch, or surface water sources that can supply saltwater.

(3) Interference with other existing legal uses

There are 4 other wells currently in use within 1 mile of this source (refer to Exhibit 1), but three are in the Ewa-Kunia Aquifer System Area, and the other well (Disney 1 Well – State Well No. 3-2007-004) is also a saltwater well within the Makaīwa Aquifer System Area (MASA). No interference is anticipated by pumpage of these wells.

(4) Public interest

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

“(c) The state water code shall be liberally interpreted to obtain maximum beneficial use of the waters of the State for purposes such as domestic uses, aquaculture uses, irrigation and other agricultural uses, power development, and commercial and industrial uses. However, adequate provision shall be made for the protection of traditional and customary Hawaiian rights, the protection and procreation of fish and wildlife, the maintenance of proper ecological balance and scenic beauty, and the preservation and enhancement of waters of the State for municipal uses, public recreation, public water supply, agriculture, and navigation. Such objectives are declared to be in the public interest.”

The proposed aquarium and aquaventure features are consistent with the public interest. There was one objection to this application (discussed in item 7 below) and a concern from the Board of Water Supply regarding the construction of the well and if the well will draw fresh/brackish water.

The well must be constructed in accordance with the Hawai‘i Well Construction and Pump Installation Standards, which require the following:

(excerpt from Section 2.4)

(c) Minimum length of solid casing

All wells drilled to non-artesian (non-confined) basal, high-level, caprock or perched aquifers shall have a minimum length of solid casing equal to 90% of the depth to the water level of the aquifer to be developed. Wells drilled to artesian (confined) aquifers shall be cased so that leakage does not occur into overlying or underlying formations. In general, no well may be allowed to develop water from more than one aquifer. **The minimum length of solid casing for salt-water wells shall be through the entire fresh and brackish water portion of the lens.**

The Chairperson may approve deviations from casing length requirements if the permittee can show that the aquifer is adequately protected.

(excerpt from Section 2.6)

(c) Minimum Depth of Grouted Annular Space

To prevent surface contamination, the annular space of all cased non-artesian wells must be sealed with grout from the ground surface to a minimum depth of 500 feet or 70% of the vertical distance between the ground surface and the top of the aquifer selected for exploration, long-term monitoring, or development, whichever depth is less. Wells drilled to artesian (confined) aquifers shall be grouted and cased so that leakage does not occur into overlying or underlying formations. **Salt-water wells shall be grouted through the entire fresh and brackish portion of the basal lens.** Perched aquifers above the target aquifer must be cased and grouted off.

The Commission will not accept a design that deviates from these standards, without a variance (which would require a Commission action). However, the applicant is not requesting a variance and are seeking salt water.

Therefore, this application meets the public interest.

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

The proposed uses are in the State Urban District, and the county zoning is Resort. 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 (DHHL), and Land Use Commission (LUC); and the Office of Hawaiian Affairs (OHA).
- 2) the Office of the Mayor, Department of Planning and Permitting, and the Department/Board of Water Supply;

The DHHL objection is discussed in item 7 below, and the BWS concerns are addressed in item 4 above.

Therefore, this application meets the requirement for compliance with state & county general plans and land use designations.

(6) County land use plans and policies

Again, normal County review includes Office of the Mayor, Department of Planning and Permitting, and the Board of Water Supply. The BWS concerns are addressed in item 4 above.

Therefore, this application meets the requirement for compliance with county land use plans and policies.

(7) Interference with Hawaiian home lands rights

All permits are subject to the prior rights of Hawaiian home lands. The Department of Hawaiian Home Lands (DHHL) and the Office of Hawaiian Affairs have reviewed this application and have submitted a letter stating that they object to the approval until data and analysis are submitted that support the statement that DHHL's rights will not be impacted (refer to Exhibit 9).

DHHL incorrectly identified Makaīwa Aquifer System Area (MASA) to be within the Waipahu-Waiawa Aquifer System Area. Actually, Makaīwa and Waipahu-Waiawa are both aquifer systems that sit within the Pearl Harbor Aquifer Sector Area, but they are also separated by the Ewa-Kunia Aquifer System Area.

DHHL doesn't have wells, a water reservation, nor property, within the Makaīwa Aquifer System Area (MASA).

The Hawai'i Well Construction and Pump Installation Standards (2004) require that saltwater wells must be constructed so that the solid casing and annular space grouting continue all the way through the fresh and brackish water lens as described in item 4 above to ensure only saltwater is developed and to protect the upper brackish portions of the basal lens.

Additional protection is afforded DHHL via standard water use permit conditions 3.g., 6., and 9.f. that notifies all water use permittees that their permits are subject to and cannot interfere with Hawaiian home land rights now and into the future.

Therefore, because staff will only approve the well construction and pump installation as-built if it follows the HWCPIIS so that salt-water well construction and withdrawal will not affect the fresh water lens in the Makaīwa Aquifer System Area (MASA), in addition to the fact that there are no DHHL sources or projects in the area, staff feels that approval of this application will not interfere with Hawaiian home lands rights.

(8) Other issues

I. Chapter 343 – Environmental Assessment (EA) Compliance

EA Triggers

In accordance with HRS § 343-5(a), the applicant's proposed action does not trigger the need for an EA. The only trigger that might be applicable is the use within the shoreline setback area. However, the wells are outside of the shoreline setback area.

II. Traditional and Customary Practices

The Ka Pa'akai O Ka'aina analysis addresses the following:

- (1) *the identity and scope of valued cultural, historical, or natural resources in the petition area, including the extent to which traditional and customary native Hawaiian rights are exercised in the petition area*

The OHA Kipuka database shows no sites or crown lands involved. OHA and the State Historic Preservation Division were sent copies of the application, and there were no concerns or sites identified.

(2) the extent to which those resources – including traditional and customary native Hawaiian rights – will be affected or impaired by the proposed action

No sites have been identified. However, in the event that there are sites present, pumpage of salt-water will not affect the fresh or brackish lenses, and nearshore discharge will not be impacted.

(3) the feasible action, if any, to be taken by the [agency] to reasonably protect native Hawaiian rights if they are found to exist.

The applicant will be required to report water usage, which includes reporting salinity. Even though no sites have been identified, the water pumped must be saline, otherwise the Commission will require pumpage to stop and any adjustments be made to ensure that further pumpage is saline.

III. Well Construction and Pump Installation Permits and BWS comments

The approval of Well Construction and Pump Installation Permits are generally ministerial. However, in cases where a ground water use permit is required, typically staff includes the approval of these permits in the Ground Water Use Permit submittal for Commission approval. As stated above, well construction standards are in place to ensure no saltwater cross connection with the fresh/brackish lens, and the approval of the as-built well construction will be dependent on compliance with these standards, which will address the Board of Water Supply's comments in Exhibit 9. Additionally, standard conditions for the Well Construction Permits and Pump Installation Permits for the proposed wells can be found in Exhibits 7 and 8.

RECOMMENDATION:

Staff recommends that the Commission approve the issuance of ground water use permit no. 1082 to Oceanwide Resort Paradise HI LLC for the reasonable and beneficial use of 0.720 million gallons per day of salt water for aquarium and aquaventure water features from the Atlantis 1, 2 and 3 wells (Well Nos. 3-2007-005, -006 & -007), as described in the recommended allocation portion of Exhibit 7, and subject to the standard water use permit conditions listed in Exhibit 8 and the following special conditions:

1. This permit is invalid if the use as described in Exhibit 7 changes. This includes, but is not limited to: type of use, location of use, land use classification changes, or anything that varies from the application.
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.

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. Standard Condition 16 for a water shortage plan requirement is waived.

Staff also recommends that the Commission approve well construction permits and pump installation permits for the sources for the approved water use permit, the Atlantis 1, 2 and 3 wells (Well Nos. 3-2007-005, -006 & -007), subject to the standard well construction permit conditions as described in Exhibit 7 and the standard pump installation permit conditions described in Exhibit 8.

Respectfully submitted,



DEAN D. UYENO
Acting Deputy Director

- Exhibits:
- 1 (Location Map)
 - 2 (Water Use Permit Detailed Information)
 - 3 (Public Notice)
 - 4 (Existing Water Use Permits and 12-Month Moving Average Withdrawal)
 - 5 (Summary of use request and recommended allocations)
 - 6 (Water Use Permit Standard Conditions)
 - 7 (Well Construction Permit Standard Conditions)
 - 8 (Pump Installation Permit Standard Conditions)
 - 9 (Comments and Objections)

APPROVED FOR SUBMITTAL:



SUZANNE D. CASE
Chairperson

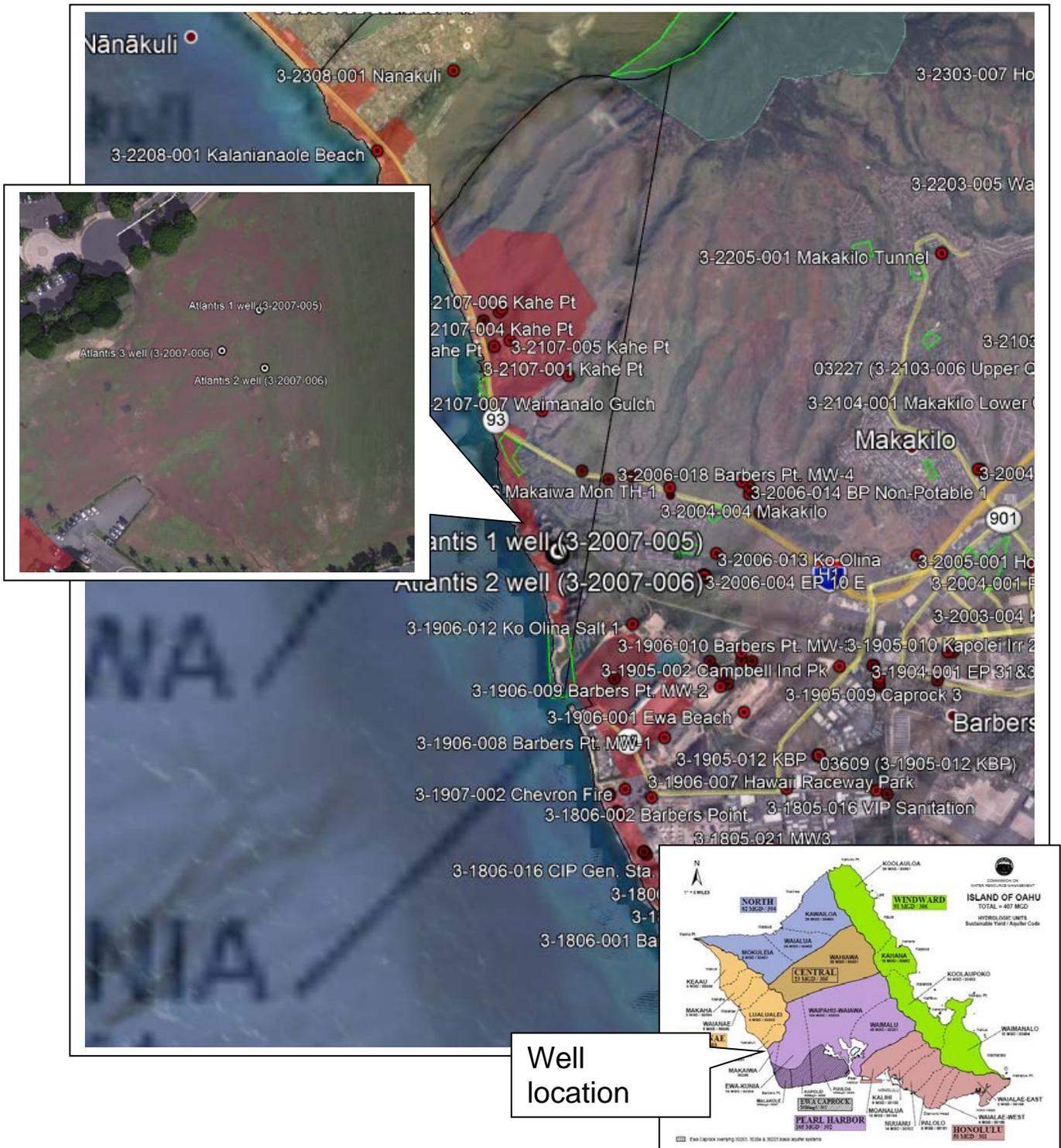


EXHIBIT 1: LOCATION MAP

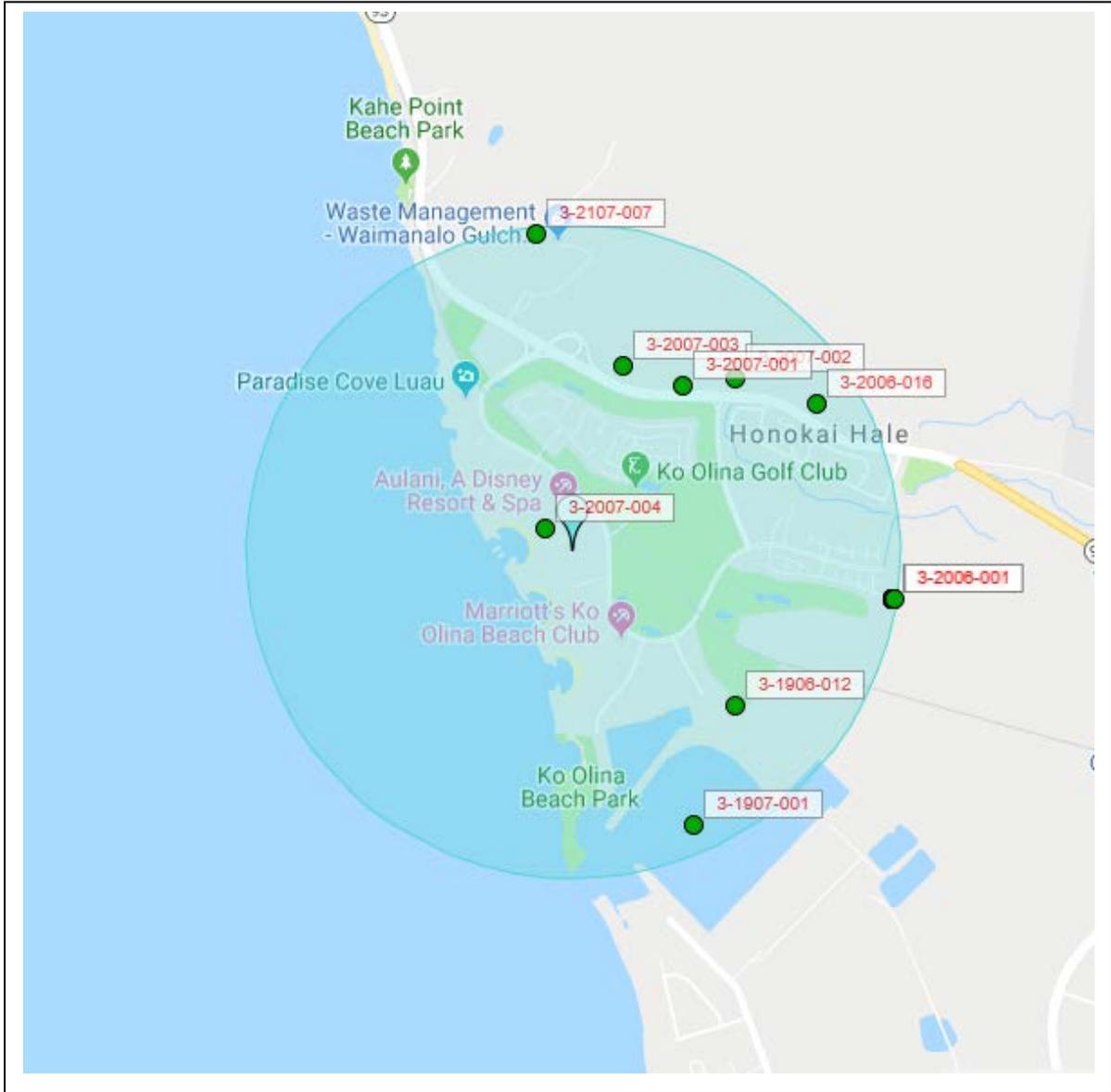


EXHIBIT 1: LOCATION MAP

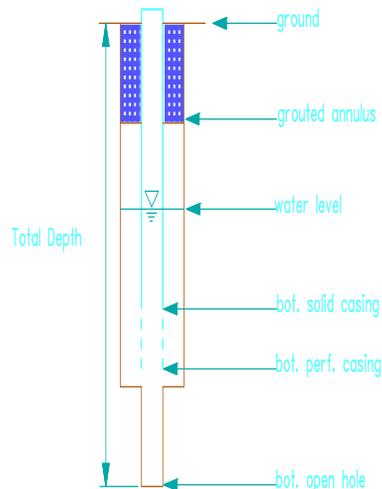
Well Number	Aquifer System	Well Name	Well Owner/Operator	Water Use Reporter	Land Owner	TMK	Use	Year Drilled	Latest 12-MAV	Last Reported Date	Distance (miles)
3-1906-012	30207 Malakole	Ko Olina Salt 1	William Blaisdell (West Honolulu Attractions, LLC)	Shane McMonagle (Ko Olina Intangibles, LLC)	Ko Olina Development LLC	(1) 9-1-057:024	UNU	2006		10/31/2018	0.70
3-1907-001	30207 Malakole	Barbers Point	U.S. State Dept.		State of Hawaii DOT, Harbors Division	(1) 9-1-014:008	ABNLOS	1951			0.94
3-2006-001	30204 Ewa-Kunia	EP 10 A, B, 11, 13	Oceanwide Resort Community HI LLC	Charlotte Lu (Oceanwide Resort Paradise HI LLC)	Oceanwide Resort Community HI LLC	(1) 9-1-015:030	UNU	1908		12/5/2018	1.00
3-2006-002	30204 Ewa-Kunia	EP 10 C	Oceanwide Resort Community HI LLC	Charlotte Lu (Oceanwide Resort Paradise HI LLC)	Oceanwide Resort Community HI LLC	(1) 9-1-015:030	AGRCP	1908		12/5/2018	1.00
3-2006-003	30204 Ewa-Kunia	EP 10 D	Oceanwide Resort Community HI LLC	Charlotte Lu (Oceanwide Resort Paradise HI LLC)	Oceanwide Resort Community HI LLC	(1) 9-1-015:030	UNU	1908		12/5/2018	1.00
3-2006-004	30204 Ewa-Kunia	EP 10 E	Oceanwide Resort Community HI LLC	Charlotte Lu (Oceanwide Resort Paradise HI LLC)	Oceanwide Resort Community HI LLC	(1) 9-1-015:030	AGRCP	1908		12/5/2018	1.00
3-2006-005	30204 Ewa-Kunia	EP 10 F	Oceanwide Resort Community HI LLC	Charlotte Lu (Oceanwide Resort Paradise HI LLC)	Oceanwide Resort Community HI LLC	(1) 9-1-015:030	UNU	1908		12/5/2018	1.00
3-2006-006	30204 Ewa-Kunia	EP 10 G	Oceanwide Resort Community HI LLC	Charlotte Lu (Oceanwide Resort Paradise HI LLC)	Oceanwide Resort Community HI LLC	(1) 9-1-015:030	AGRCP	1908		12/5/2018	1.00
3-2006-007	30204 Ewa-Kunia	EP 10 H	Oceanwide Resort Community HI LLC	Charlotte Lu (Oceanwide Resort Paradise HI LLC)	Oceanwide Resort Community HI LLC	(1) 9-1-015:030	UNU	1908		12/5/2018	1.00
3-2006-008	30204 Ewa-Kunia	EP 10 J	Oceanwide Resort Community HI LLC	Charlotte Lu (Oceanwide Resort Paradise HI LLC)	Oceanwide Resort Community HI LLC	(1) 9-1-015:030	UNU	1913		12/5/2018	1.00
3-2006-009	30204 Ewa-Kunia	EP 10 K	Oceanwide Resort Community HI LLC	Charlotte Lu (Oceanwide Resort Paradise HI LLC)	Oceanwide Resort Community HI LLC	(1) 9-1-015:030	UNU	1913		12/5/2018	1.00
3-2006-010	30204 Ewa-Kunia	EP 10 B	Oceanwide Resort Community HI LLC	Charlotte Lu (Oceanwide Resort Paradise HI LLC)	Oceanwide Resort Community HI LLC	(1) 9-1-015:030	UNU	1923		12/5/2018	1.00
3-2006-011	30204 Ewa-Kunia	EP 10 I	Oceanwide Resort Community HI LLC	Charlotte Lu (Oceanwide Resort Paradise HI LLC)	Oceanwide Resort Community HI LLC	(1) 9-1-015:030	UNU	1923		12/5/2018	1.00
3-2006-016	30204 Ewa-Kunia	Makaiwa Mon TH-1	James Campbell Company LLC			(1) 9-2-003:002	OBS	1990			0.86
3-2007-001	30204 Ewa-Kunia	Barbers Point	Honolulu Board of Water Supply, BWS		State of Hawaii, Department of Transportation, Highways Division, DOT		ABNSLD	1938			0.58
3-2007-002	30204 Ewa-Kunia	Makaiwa Mon TH-2	Makaiwa Hills, LLC		Makaiwa Hills, LLC	(1) 9-2-003:002	OBS				0.70
3-2007-003	30205 Makaiwa	Makaiwa Mon TH-3	Makaiwa Hills, LLC		Makaiwa Hills, LLC	(1) 9-2-003:002	OBS				0.56
3-2007-004	30205 Makaiwa	Disney 1	Aulani, A Disney Resort & Spa	Alison Motts (Aulani, A Disney Resort & Spa)	Disney Vacation Development Inc.	(1) 9-1-057:036	IRRLA	2010		11/30/2018	0.09
3-2107-007	30205 Makaiwa	Waimanalo Gulch	Waste Management of Hawaii, Inc. Hawaii	Michael Kaha (Waste Management of Hawaii, Inc. Hawaii)	City & County of Honolulu, C&CH	(1) 9-2-050:005	ABNSLD	1993			0.95

EXHIBIT 1: LOCATION MAP

WATER USE PERMIT DETAILED INFORMATION

Source Information

AQUIFER:	Makaīwa System, Pearl Harbor Sector, Oahu
Sustainable Yield (proposed, none currently established):	<1 mgd
Existing Water Use Permits:	0 mgd
Available Allocation:	n/a mgd
Total other pending applications:	0 mgd
This application (salt water – doesn't deduct from sustainable yield):	0.720 mgd
 WELL:	 Atlantis 1, 2 and 3 wells (Well Nos. 3-2007-005, -006 & -007)
Location:	Ko Olina, Oahu, TMK: (1) 9-1-057:006
Casing Diameter:	27 in.
<u>Elevations</u> (msl= 0 ft.)	
Water Level:	n/a ft.
Ground:	27 ft.
Bottom of Solid Casing:	-373 ft.
Bottom of Perforated:	-423 ft.
Bottom of Open Hole:	n/a ft.
 Total Depth:	 450 ft.
Grouted Annulus Depth:	390 ft.
 Pump Capacity	 600 gpm (each)



Use Information

Quantity Requested:	0.720 million gallons per day
New Type of Water Use:	aquarium / aquaventure water features
Place of Water Use:	TMK: (1) 9-1-057:006 & 007
Makaīwa Aquifer System	
Current 12-Month Moving Average Withdrawal:	0 mgd

Nearby Surrounding Wells and Other Registered Ground Water Use

There are 19 wells within a mile of the wells (see Exhibit 1). 4 of these wells are currently in use. Three are in the Ewa-Kunia Aquifer System Area, and one well is in the Makaīwa Aquifer System Area, but it is a salt water well and therefore doesn't draw from basal aquifers in either area.

Public Notice

In accordance with HAR §13-171-17, a public notice was published in the Star Advertiser on 11/30/2018 and 12/7/2018 and a copy of the notice was sent to the Office of the Mayor. Copies of the completed application were sent to the 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 December 21, 2018.

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 December 21, 2018.

The Department of Hawaiian Homelands objected to the application (attached in Exhibit 9), but DHHL has no property in the Makaīwa Aquifer System Area, nor do they have a reservation in this system.

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. A brief in support was filed with the Commission on December 28, 2018, and can be found in Exhibit 9.

PUBLIC NOTICE

Application for Water Use Permit Makaiwa 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. 01082 Atlantis 1, 2 and 3 wells (Well No. 3-2007-005, -006, and -007) Applicant:

Oceanwide Resort Paradise HI LLC
1099 Alakea Street, Suite 2400
Honolulu, HI 96813

Landowner: Oceanwide Resort Paradise HI LLC 1099 Alakea Street,
Suite 2400
Honolulu, HI 96813

Date Application Filed as Complete: October 30, 2018 Hydrologic Unit / Aquifer System Area:
Makaiwa System, Pearl Harbor Sector, Oahu

Water Source: Atlantis 1, 2 and 3 wells (Well No. 3-2007-005, -006, -007), Tax Map Key (1) 9-1-057:006

Quantity Requested: 0.720 million gallons per day.

Existing/New Use: New

Place of Water Use: at Tax Map Key: (1) 9-1-057:006

Written objections or comments on this application may be filed by any person who has property interest in any land within the hydrologic unit of the source of water supply, any person who will be directly and immediately affected by the proposed water use, or any other interested person. Written objections must (1) state the property or other interest in the matter (provide TMK information); (2) set forth questions of procedure, fact, law, or policy, to which objections are taken; and (3) state all grounds for objections to the proposed permit. Written objections must be received by December 21, 2018. 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: November 20, 2018

Publish in: Honolulu Star Advertiser issues of November 30, 2018 and December 7, 2018



Report Parameters

WUP Type: Water Use Permit, Administrative Modification, Reservation, Transfer, CWRM Decision and Orders, Court Orders, Other
 Island: Oahu
 Applicant: All
 Well # Prefix: All
 Date: All
 Issued Date: All
 Date Accepted: All
 Aquifer: 30205 Makaiwa
 Source or End Use TMK: All
 Aquifer Type: Alluvial, Basal, Caprock, Dike, Perched, Not Specified
 Water Quality: Fresh, Brackish, Salt, Potable, Non-Potable, Not Specified
 Not
 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: 30205 Makaiwa

Sustainable Yield (mgd):

Wup No	Approved	Permittee	Well No	Well Name	WUP (mgd)	12-MAV (mgd)	Diff (mgd)	Date Last Reported
00905	02/16/2011	Aulani, A Disney Resort & Spa	3-2007-004	Disney 1	0.072	0.025	0.047	11/30/2018
<i>Summary for Makaiwa (1 detail records)</i>					Total:	0.072	0.025	0.047

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 basis (attached).
- 11. This permit shall be subject to the Commission's periodic review of the **Makaīwa** 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 **Makaīwa** 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 **Makaīwa** Ground Water Management Area.
- 17. The water use permit shall be subject to the Commission's establishment of instream standards and policies relating to the Stream Protection and Management (SPAM) program, as well as legislative mandates to protect stream resources.

18. Special conditions in the attached cover transmittal letter are incorporated herein by reference.
19. The permittee understands that any willful violation of any of the above conditions or any provisions of HRS § 174C or HAR § 13-171 may result in the suspension or revocation of this permit.

STANDARD WELL CONSTRUCTION PERMIT CONDITIONS

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

15. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.
16. This permit shall apply to the location shown on the application only. If the well is to be relocated, the permittee shall apply for a new well construction/pump installation permit in accordance with §13-168-12(f), HAR.
17. Special conditions in the attached cover transmittal letter are incorporated herein by reference.

STANDARD PUMP INSTALLATION PERMIT CONDITIONS

1. The Chairperson to the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work covered by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules (HAR).
2. No withdrawal of water shall be made other than for testing until a Certificate of Pump Installation Completion has been issued by the Commission.
3. This permit shall be prominently displayed, or made available, at the site of construction work until work is completed.
4. The pump installation permit shall be for installation of a gpm rated capacity, or less, pump in the well. This permanent capacity may be reduced in the event that the pump test data does not support the capacity.
5. A water-level measurement access shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels.
6. The permittee shall install an approved meter or other appropriate means for measuring and reporting withdrawals and appropriate devices or means for measuring chlorides and temperature at the well head.
7. Well Completion Report Part II shall be submitted to the Chairperson within sixty (60) days after completion of work (please contact staff or visit <http://files.hawaii.gov/dlnr/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. IGE
GOVERNOR
STATE OF HAWAII



JOBIE M. K. MASAGATANI
CHAIRMAN
HAWAIIAN HOMES COMMISSION

JOSH GREEN
LT. GOVERNOR
STATE OF HAWAII

WILLIAM J. AILA, JR.
DEPUTY TO THE CHAIRMAN

**STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS**

P. O. BOX 1879
HONOLULU, HAWAII 96805

December 20, 2018

Department of Land and Natural Resources
Commission on Water Resource Management
Attn: Ryan Imata
PO Box 621
Honolulu, HI 96809

Dear Mr. Imata

Subject: Water Use Permit Application
Makaiwa Ground Water Management Area, Oahu

The Department of Hawaiian Home Lands is in receipt of water use permit application (WUPA) No. 01082 for the Atlantis 1, 2, & 3 wells (Well No. 3-2007-005, 006 and -007) from applicant Oceanwide Resort Paradise HI LLC. The application seeks 0.720 million gallons per day of saline groundwater in the Makaiwa groundwater management area, Pearl Harbor.

Under section 15 of the WUPA entitled, "Interference with the Rights of the Department of Hawaiian Home Lands," the applicant simply states, "[a]s far as is known, use of saline groundwater will in no way interfere with the rights of the Department of Hawaiian Home Lands." The applicant further states in section 16, "[u]se of the saline groundwater will not interfere with any use of potable or brackish groundwater." However, the applicant does not provide any data or analysis to support these statements.

Since 1994, the State Commission on Water Resources Management (CWRM) has reserved by administrative rule 1.724 million gallons per day (mgd) of groundwater from state lands in the Waipahu-Waiawa Aquifer System for use in Papakōlea, Nānākuli, and Wai'anae-Lualualei Hawaiian homestead areas. Subsequently, DHHL filed a petition to reserve an additional 2.303 mgd of groundwater from the Waipahu-Waiawa Aquifer System for foreseeable needs in the Wai'anae, 'Ewa, Honolulu and Ko'olaupoko Districts.

The Makaiwa Groundwater Management Area is located in the Waipahu-Waiawa Aquifer. DHHL therefore has rights to groundwater that could be potentially impacted by this WUPA and objects to its approval until data and analysis is provided that supports the statements in the application that there will be no interference with the rights of the Department of Hawaiian Home Lands and no impact to the use of potable or brackish

Mr. Imata
December 20, 2018
Page 2

groundwater by pumping 720,000 gallons per day of saline groundwater from the Makaiwa Groundwater Management Area.

Mahalo for the opportunity to provide comments on this WUPA. If there are any questions, please contact Halealoha Ayau, Water Resource Management Specialist, at (808) 933-3272 or via email at e.halealoha.ayau@hawaii.gov.

Aloha and Mahalo,



Jobie M. K. Masagatani, Chairman
Hawaiian Homes Commission

cc: Oceanwide Resort Paradise HI LLC

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843
www.boardofwatersupply.com



December 5, 2018

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ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

ELLEN E. KIMMUR, P.E.
Deputy Manager and Chief Engineer

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COMMISSION ON WATER
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DEC 10 AM 7:41

Mr. 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

Dear Mr. Pearson:

Subject: Water Use Permit Application No. 01082 for Atlantis 1, 2 & 3 Wells
(State Well Nos. 3-2007-005, -006, -007)

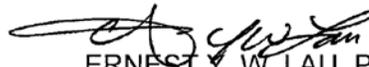
Thank you for the opportunity to provide comments on the subject application (copy attached).

While the applicant, Oceanwide Resort Paradise HI LLC, states in the application that the proposed wells are for "saltwater circulation through Aquarium and Aquaventure", and "will not interfere with any use of potable or brackish groundwater", the relatively high flow rate requested (720,000 gallons per day) and the location of the proposed wells (at least several hundred feet inland from the coast, in the Ko Olina resort complex) prompts the following comments.

We would appreciate well construction design information from Oceanwide, to provide some assurance that the wells will only be drawing from saltwater rather than brackish or fresh water. Also, we request that related water quality testing be required as part of their well construction permit application.

If you have any questions, please contact Barry Usagawa at 748-5000 or Nancy Matsumoto at 748-5938.

Very truly yours,


ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

Attachment



Tom Nance Water
Resource Engineering

No. of pages: 2
Email: ryan.r.imata@hawaii.gov
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Original will will not
be mailed to you.

December 28, 2018
18-241 | 18-42

Mr. Ryan Imata
Commission on Water Resource Management
Department of Land and Natural Resources
State of Hawaii
P. O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Imata:

Brief in Support of Water Use Permit Application (WUPA) No. 01082
for the Atlantis 1, 2, and 3 Salt Water Wells (Nos. 3-2007-005, -006, and -007)

This letter responds to an objection raised regarding the above cited WUPA No. 01082 by the Department of Hawaiian Home Lands (DHHL) in a December 20, 2018 letter to Mr. Ryan Imata. WUPA No. 01082 is for three saltwater wells that would draw saline groundwater from beneath the brackish to saline basal lens in the Makaiwa Aquifer System. The wells would supply saltwater features in the proposed Atlantis project in Ko Olina Resort.

The basis of DHHL's objection is that pumpage by the three saltwater wells will adversely impact its 1.724 MGD reservation in the Waipahu-Waiawa Aquifer System and its pending petition for an additional 2.303 MGD reservation, also from the Waipahu-Waiawa Aquifer System. In the fourth paragraph on page 1 of the DHHL letter, it states that "The Makaiwa Groundwater Management Area is located in the Waipahu-Waiawa Aquifer". This statement is not correct. The Makaiwa Aquifer System is physically separate from the Waipahu-Waiawa Aquifer System, with that separation being the intervening Ewa-Kunia Aquifer System. As such, there is no way that pumpage of saline groundwater from the Makaiwa Aquifer System could adversely impact DHHL's existing and pending additional reservation in the Waipahu-Waiawa Aquifer System.

A number of other aspects are worth noting that should allay DHHL's concern regarding its existing and pending reservations in the Waipahu-Waiawa Aquifer:

- As I understand it, DHHL owns no property anywhere in the Makaiwa Aquifer System.
- All water in the Makaiwa Aquifer System is very brackish to saline. There is no potable quality water anywhere in the aquifer. Further, the aquifer's size and potential yield would not even allow development of a successful brackish well for irrigation use.

- The CWRM requires all saltwater wells to have chloride levels above 17,000 milligrams per liter, about 90 percent of the chloride level in seawater. The three saltwater wells for the Atlantis project will have to conform to this requirement.
- The proof of the ability to design, construct, and use a saltwater well without impacting an overlying basal lens is in the pumping, not just during the initial relatively short permit-required pump tests but going forward under continuous use. If under that use, the pumped water salinity gradually decreases, it would be the result of improper well design or construction which is allowing the overlying basal groundwater to be drawn into the well. I have personally designed and overseen construction of numerous saltwater wells on Oahu and on the Big Island, some of which have been in operation for more than 25 years. This includes the saltwater well on the Disney Aulani site adjacent to the Atlantis project which was installed in 2008. All of these wells, without exception, have continued to pump saline groundwater with no decrease in salinity.

Based on all of the foregoing, I can state with complete certainty that use of the three saltwater wells for the Atlantis project will in no way impact DHHL's existing and pending reservations in the Waipahu-Waiawa Aquifer. I am available to discuss any aspect of this if necessary.

Sincerely,



Tom Nance

cc: W. Roy Hardy – Department of Land and Natural Resources
E. Halealoha Ayau and Kaleo Manuel – Department of Hawaiian Home Lands
Min Zhong and Wilbert Yao – Oceanwide Resort
Randy Fujiki – The Resort Group, LLC
Greg Fukumitsu and Todd Yonamine – TNWRE Inc.