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**DEPARTMENT OF WATER SUPPLY**  
**COUNTY OF MAUI**  
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[www.mauiwater.org](http://www.mauiwater.org)

March 24, 2004

Mr. Peter T. Young, Chairperson  
Commission on Water Resource Management  
Department of Land and Natural Resources  
P O Box 621  
Honolulu Hi 96809

Subject: Well Construction/Pump Installation Permit Application  
Kaupakalua - JN & RS Wells 1 & 2 (Well Nos. 5417-04 & 5416-01)  
TMK: (2) 2-8-002:012

Dear Mr. Young:

Thank you for the opportunity to provide comments on this application.

**Zoning Compliance**

The property is designated Agricultural by the State Land Use Commission, Paia-Haiku Community Plan, and County zoning. The proposed use is an allowed use under this land use designation. The project site is located outside of the Special Management Area.

**Aquifer Status and Proposed Amount of Withdrawal**

The project is served by Haiku Aquifer. This aquifer has a sustainable yield of 31 MGD. The 31 MGD estimate is based on initial hydrological according conditions before the capture of perched water by the ditch system. According to the 1990 State Water Resources Protection Plan, a more conservative estimate is 15 MGD.

DWS anticipates the need for additional wells in the Haiku aquifer in the future. The approved 1990 Water Use and Development Plan (WUDP) mentions wells in the Haiku aquifer, as does our draft 1992 WUDP which received Board approval. Therefore, we request that CWRM be cognizant not to grant approvals where this might create difficulty in meeting municipal needs.

A 6-inch DWS waterline borders the southernmost part of the parcel. DWS has concerns about the proliferation of private systems within the department's service area. It appears that this well site maybe properly situated for connection with the public system and we suggest that the applicants discuss this possibility with DWS prior to drilling. In addition, we suggest that the applicant be required to report monthly pumpage to DWS as well as the Commission on Water Resource Management (CWRM).

The applicant proposes to withdraw a total of 80,000 GPD from both wells for domestic use. This is about 20% higher than the Statewide Water System Standard guidelines for property this size. According to the applicant, they are planning to subdivide the property. The applicant should be aware that private systems serving more than 25 people over 60 days of the year are subject to the Department of Health regulations including rigorous testing and monitoring.

*"By Water All Things Find Life"*



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While the proposed well does not have immediate effect on any existing DWS wells, there are several private wells in the zone of influence. The proximity of the proposed well to existing wells could conceivably present potential conflict in use. This conflict depends on pumpage, drawdown and aquifer status. Attached is a map showing the location private wells and DWS future well sites in the zone of influence.

### Conservation

We encourage the applicant to consider the following water conservation measures:

Utilize Low-Flow Fixtures and Devices: Maui County Code Subsection 16.20A.680 requires the use of low-flow water fixtures and devices in faucets, showerheads, urinals, water closets and hose bibs. Water conserving washing machines, ice makers, and other units are also available.

Maintain Fixtures to Prevent Leaks: A simple, regular program of repair and maintenance can prevent the loss of hundreds or even thousands of gallons a day. Refer to the attached handout, "The Costly Drip."

Use Climate-adapted Plants: The project site is located in the "Maui County Planting Plan" - Plant Zone 1. Please refer to the attached documents "Saving Water in the Yard". Native plants adapted to the area, conserve water and further protect the watershed from degradation due to invasive alien species.

### Groundwater Protection

In order to protect groundwater resources, we encourage the applicant to adopt Best Management Practices (BMPs) designed to minimize infiltration and runoff from daily activities. Sample BMPs are as enumerated below.

- 1) Inspect exposed parts of the well periodically for problems such as: cracked or corroded well casing, broken or missing well cap, damage to protective casing, settling and cracking of surface seals.
- 2) Slope the area around the well so that surface runoff drains away from the well.
- 3) Provide a well cap or sanitary seal to prevent unauthorized use of or entry into the well.
- 4) Provide for sediment removal or well cleaning as necessary.
- 5) Have the well tested once a year for fecal coliform or other constituents that may be of concern.
- 6) Keep accurate records of any well maintenance, such as disinfection or sediment removal, that might require use of chemicals in the well.
- 7) Avoid mixing or using pesticides, fertilizers, herbicides, degreasers, fuels, or other pollutants near the well.
- 8) Do not locate any type of potentially polluting activity up slope from the well.

Should you have any questions, please call our Water Resources and Planning Division at 270-7199.

Sincerely,



George K. Tengan

Director

cc:

Engineering Division

Applicant, with attachments

The Costly Drip

Maui County Planting Plan - Plant Zone 1- What and How to Plant in your Area

Ordinance 2108-A Bill for an Ordinance Amending Chapter 16.20 of the Maui County Code Pertaining to the Plumbing Code