Chairperson and Members  
Commission on Water Resource Management  
State of Hawaii  
Honolulu, Hawaii  

Gentlemen:

Waialua Sugar Company  
Voluntary Reduction of Permitted Water Use in the  
Waialua Aquifer System, Waialua Ground Water Management Area  
Waialua, Oahu

Background: Present authorized uses of ground water in the Waialua Aquifer System of the Waialua Ground Water Management Area (GWMA) total 43.114 mgd. The sustainable yield for the Waialua Aquifer System (formerly called the Waialua Subarea) was originally 60 mgd when the Board of Land and Natural Resources adopted the sustainable yield in July 1981. The Commission on Water Resource Management, in October 1991, accepted an updated table of sustainable yields for Oahu. Under the updated table, the sustainable yield for the Waialua Aquifer System was reduced from 60 mgd to 40 mgd. The new sustainable yield was formally adopted by the Commission on March 17, 1993. Authorized uses now exceed the sustainable yield by 3.114 mgd.

The Commission staff has reviewed the authorized uses versus the actual uses in the entire Waialua GWMA. Allocations in the Waialua Aquifer System are as follows:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Waialua Sugar Company</td>
<td>39.940 mgd</td>
</tr>
<tr>
<td>Honolulu BWS</td>
<td>2.730 mgd</td>
</tr>
<tr>
<td>Private Users</td>
<td>0.444 mgd</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>43.114 mgd</strong></td>
</tr>
</tbody>
</table>

Preliminary review of Waialua Sugar Company's pumpage data indicates that they have used less than 30 mgd of their 40 mgd allocation over the last five years (see attached graph). Water use by the Honolulu BWS and private users has not changed significantly.

Waialua Sugar Company calculated their irrigation requirements using the same methodology that Oahu Sugar Company used to determine their irrigation requirements in the Pearl Harbor area. Irrigation requirements were calculated for dry years (1983 - 1986) and wet years (1988 - 1991). Pumping required was calculated to be about 46 to 48 mgd for dry years and about 35 to 36 mgd for wet years.

Waialua Sugar Company has reviewed their water use over the past 20 years and, based on historical water use, conversion to drip irrigation, and other factors, has voluntarily reduced its permitted water use in the Waialua Aquifer System from 39.9 mgd to 36.0 mgd effective June 1, 1993. This voluntary reduction reduces the allocations in the Waialua Aquifer System to 39.174 mgd, which is less than the sustainable yield of 40 mgd, and allows an additional 0.826 mgd to be allocated.

In voluntarily reducing its allocation, Waialua Sugar Company states that they "want to be on record that sugar production is highly dependent upon water; without adequate water, yields will suffer. We cannot afford to short ourselves of water. As we understand, we can exceed the permitted use during dry periods as may be required" (See attached letter).
Chairperson and Members
Commission on Water Resource Management

June 2, 1993

RECOMMENDATION:

That the Commission accept Waialua Sugar Company's voluntary reduction of permitted use in the Waialua Aquifer System, from 39.940 to 36.0 mgd. The 3.94 mgd reduction will be taken from sources in the Waialua Aquifer System presently being determined by Waialua Sugar Company. Staff will be working with them to determine the source-by-source reductions and will bring the results to the Commission for approval.

Respectfully submitted,

RAE M. LOUI
Deputy Director

Attach.

APPROVED FOR SUBMITTAL

KEITH W. AHUE, Chairperson
WAIALUA AQUIFER SYSTEM
WSCO Use Vs. Allocation

WUP = 39.940 mgd
11.418 mgd

--- monthly use
--- 12-mon mov ave

months
1/80 1/82 1/84 1/86 1/88 1/90 1/92

mgd
0 10 20 30 40 50 60 70 80
May 12, 1993

Ms. Rae Loui
Deputy Director
State Water Commission
P. O. Box 621
Honolulu, Hawaii 96809

Dear Ms. Loui:

We have had several meetings over the past months to
discuss Waialua Sugar Company's permitted water use from the
Waialua aquifer. Waialua Sugar has a permitted use of
39.9 million gallons per day. When you add the permitted
use of the City Water Department, you have a combined use
which is higher than the sustainable yield.

<table>
<thead>
<tr>
<th>Waialua Sugar Company</th>
<th>39.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board of Water Supply</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>43.1</td>
</tr>
<tr>
<td>Total Sustainable Yield</td>
<td>40.0</td>
</tr>
<tr>
<td>Over Permitted Use</td>
<td>(3.1)</td>
</tr>
</tbody>
</table>

We have reviewed our water use over the past 20 years
and while we have peaked at times over our permitted use, it
appears we could reduce the permitted use given recent
historical water use, conversion to drip irrigation and
other factors.

Before going further, we want to be on record that
sugar production is highly dependent upon water; without
adequate water, yields will suffer. We cannot afford to
short ourselves of water. As we understand, we can exceed
the permitted use during dry periods as may be required.

Based on the above discussions and research into this
matter, Waialua Sugar Company is voluntarily reducing its
permitted water use in the Waialua aquifer from our current
39.9 million gallons per day to 36.0 million gallons per day
effective June 1/93.

Sincerely,

Michael F. O'Brien
President
Dole Food Hawaii

cc: M. Agader
    J. A. Russell
    G. Yim
ITEM 1  MINUTES OF THE MAY 19, 1993 MEETING

Unanimously approved as submitted (Cox/Nakata).

ITEM 2  OLD BUSINESS/REPORTS

Ms. Loui reported on two follow up items:

1) Guidelines for modification of the water use permits
   Staff finds that Administrative Rules 171-23 are clear regarding changes
   that require modification. Therefore, it was felt that guidelines are not
   necessary.

2) Guidelines for Emergency permits
   Still being worked on. Eventually, amendments to the Administrative
   Rules will be made to more clearly address emergency permits.

ITEM 3  WAIALUA SUGAR COMPANY, VOLUNTARY REDUCTION OF
         PERMITTED WATER USE IN THE WAIALUA GROUND WATER
         MANAGEMENT AREA, WAIALUA, OAHU

Mr. Sakoda submitted amended recommendations for the Commission review and
action (see attached).

Mr. Cox had the following questions:

1) Are the statements regarding *dry years and *wet years* correct for that
   area and time?
   Rainfall data provided by Climate Center was utilized, it was jointly
determined that these were wet and dry years based on actual rainfall
information.

2) In terms of the water level in the aquifer, what has happened during the
   periods noted?
   The water level data for the Waialua Aquifer is not that good. No
   problems have been expressed. USGS is drilling in that area to get more
   data.

3) What length of time is being discussed in Waialua Sugar Company’s
   (Waialua Sugar) statement: "We cannot afford to short ourselves of water.
   As we understand, we can exceed the permitted use during dry periods as
   may be required."
   No specifics have been set, it would be on a case by case basis.

Mr. Nakata asked:

1) Why was there a discrepancy in the amount of pumpage?
   Mr. Sakoda replied that Waialua Sugar was still in the process of
   converting from furrow to drip. During that time, fields lie fallow longer
   than normal.

2) What percentage of the acreage was under drip irrigation?
Milton Agadar, Waialua Sugar Irrigation Superintendent stated that approximately 90% is fed by drip irrigation from the Waialua Aquifer.

Mr. Martin provided testimony (see Commission file) urging the Commission to review all data presently available and consider imposing further allocation reductions. He also felt specific quantitative guidelines and protocols for administering dry period extractions need to be part of the State Water Resource Protection Plan and water use permit conditions.

Mr. Cox commented that unless more information was available he would be uncomfortable in trying set a time for the dry period because it would vary considerably from aquifer to aquifer. Mr. Sakoda agreed that a generalized guideline would be difficult to make because every situation would be different.

In regards to the word “voluntary”, Mrs. Black suggested “agreement” because if there is no water, how could it be a “voluntary reduction”. Mr. Sakoda stated that it is voluntary because the Water Code provides that a water user can voluntarily give up or reduce their allocation without going through the public hearing process.

Mr. Ing asked how the data was obtained for the graph and if all the active pumps were metered. Mr. Sakoda said data was submitted monthly by Waialua Sugar. Mr. Agadar responded that all the pumps are metered.

Mr. Ing asked why the 12-month moving average of pumping was used and if this was an industry practice. In Hawaii, 12-month moving averages have been used by the water industry.

Unanimously approved as amended (Cox/Nakata).

ITEM 4

HOUSING FINANCE AND DEVELOPMENT CORPORATION,
APPLICATION FOR A WELL CONSTRUCTION PERMIT. KEOPU-HFDC WELL 1 (WELL NO. 3957-03). NORTH KONA, HAWAII

The following items were discussed:

1) The nearby Haseko Well is not being pumped but is proposed to be pumped at 700 gallons per minute.

2) This well would be required to follow the CWRM's pump test protocol, which is a seven day test. The best data possible will be obtained for input into the Groundwater Model currently being developed jointly by USGS/CWRM.

3) If the HFDC wells interfere with the Haseko well, the Hawaii County BWS would not award the full amount of water commitments to the wells.

4) There have been mixed results of the testing of the high level wells. Some have stabilized quickly while others have not.

Mr. Martin expressed concerns regarding ceded lands, the effects on other wells due to a first come-first serve process, and requirements for a water license.

Mr. Tam said public lands are set aside by executive order for county and other state department uses. Setting aside or transferring water to a sub-agency of the state for public purposes is not a transfer to a private entity. Therefore, the use by the counties of state lands for providing municipal water supply does not require a license under the Land Board or the Commission.

Unanimously approved (Cox/Nakata).
State of Hawaii  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Division of Water and Land Development  
Honolulu, Hawaii  

September 11, 1981  

Chairman and Members  
Board of Land and Natural Resources  
State of Hawaii  
Honolulu, Hawaii  

Gentlemen:  

Certification of Ground Water Withdrawals and Uses,  
Waialua Ground Water Control Area, Oahu  

The Waialua Ground Water Control Area was designated by the Board of  
Land and Natural Resources on February 27, 1981 under authority of Chapter 177,  
ERS, and Chapter 156 of Title 13, Administrative Rules entitled "Rules for the  
Control of Ground Water Use in the State of Hawaii". The Department's regulatory  
procedures provide for water users to declare their existing water uses within a  
ninety-day period which ended June 4, 1981 and allows the Board 180 days to  
certify the declared uses.  

The recommended certification of total annual, average daily, and maximum  
daily withdrawals for individual wells and/or well fields is tabulated in the  
attachment, "Certification of Ground Water Withdrawals and Uses, Waialua Ground  
Water Control Area", for the Waialua, Mokuleia, and Kailua Subareas. A com-  
parison of the recommended quantity for certification and the sustainable yield  
adopted by the Board on July 24, 1981 is tabulated below:  

<table>
<thead>
<tr>
<th>Subarea</th>
<th>Sustainable Yield (mgd)</th>
<th>Recommended Certification (mgd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waialua</td>
<td>60</td>
<td>51.612</td>
</tr>
<tr>
<td>Mokuleia</td>
<td>20</td>
<td>7.753</td>
</tr>
<tr>
<td>Kailua</td>
<td>10</td>
<td>5.260</td>
</tr>
</tbody>
</table>

The remaining ground water supplies may be withdrawn by obtaining  
permits from the Board of Land and Natural Resources.  

RECOMMENDATION:  

That the Board certify the existing withdrawals and uses for each well  
tabulated on the attached "Certification of Ground Water Withdrawals and Uses,  
Waialua Ground Water Control Area" dated September 11, 1981, subject to any  
special conditions and applicable laws, rules and regulations.  

Respectfully submitted,  

ROBERT T. CEBULK  
Manager-Chief Engineer  

APPROVED FOR SUBMITTAL:  

SUSUMU O'NO, Chairman  

ITEM 2-I
## Certification of Ground Water Withdrawals and Uses

### Waialua Ground Water Control Area

<table>
<thead>
<tr>
<th>User/Source</th>
<th>State Well No.</th>
<th>Total Wells</th>
<th>Use</th>
<th>Source Capacity (mgd)</th>
<th>5-yr. Ave Withdrawal (mgd)</th>
<th>Maximum Daily Withdrawal (mgd)</th>
<th>Total Annual Withdrawal (mgd)</th>
<th>Average Daily Withdrawal (mgd)</th>
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</thead>
<tbody>
<tr>
<td><strong>WAIALUA Subarea</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Waialua Sugar Co.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump 1</td>
<td>3407-04, 05, 06, 08, 10, 14, 15</td>
<td>5</td>
<td>Agr.</td>
<td>6.0</td>
<td>2.32 Agr.</td>
<td>6.0</td>
<td>850.45</td>
<td>2.32</td>
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<tr>
<td>Pump 2</td>
<td>3307-01 to 06, 08 to 10</td>
<td>9</td>
<td>Agr./Dom.</td>
<td>10.0</td>
<td>4.37 Agr./Dom.</td>
<td>10.0</td>
<td>1,555.05*</td>
<td>4.37*</td>
</tr>
<tr>
<td>Pump 2A</td>
<td>3307-07, 11 to 14</td>
<td>5</td>
<td>Agr./Dom.</td>
<td>7.0</td>
<td>4.45 Agr./Dom.</td>
<td>7.0</td>
<td>315.36</td>
<td>0.86</td>
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<tr>
<td>Pump 3</td>
<td>35-5-01 to 20</td>
<td>12</td>
<td>Agr./Dom.</td>
<td>7.0</td>
<td>3.16 Agr./Dom.</td>
<td>7.0</td>
<td>1,113.90</td>
<td>3.05</td>
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<tr>
<td>Pump 7</td>
<td>3407-11, 12, 16, 19</td>
<td>4</td>
<td>Agr./Dom.</td>
<td>5.5</td>
<td>3.93 Agr./Dom.</td>
<td>5.5</td>
<td>1,368.75</td>
<td>3.75</td>
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<tr>
<td>Pump 8</td>
<td>3506-03, 04</td>
<td>2</td>
<td>Agr./Dom.</td>
<td>3.0</td>
<td>1.66 Agr./Dom.</td>
<td>3.0</td>
<td>605.90*</td>
<td>1.66*</td>
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<tr>
<td>Pump 9</td>
<td>3406-02</td>
<td>1</td>
<td>Agr.</td>
<td>0.75</td>
<td>0.16 Agr.</td>
<td>0.75</td>
<td>58.4</td>
<td>0.16</td>
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<tr>
<td>Pump 10</td>
<td>3306-01 to 12</td>
<td>12</td>
<td>Agr.</td>
<td>12.0</td>
<td>6.62 Agr.</td>
<td>12.0</td>
<td>2,416.30</td>
<td>6.62</td>
</tr>
<tr>
<td>Pump 17</td>
<td>3404-02</td>
<td>1</td>
<td>Agr./Dom.</td>
<td>15.0</td>
<td>8.03 Agr./Dom.</td>
<td>15.0</td>
<td>2,992.27</td>
<td>0.18</td>
</tr>
<tr>
<td>Mill Pumps</td>
<td>3407-07 to 10, 16, 17, 19, 21</td>
<td>8</td>
<td>Agr.</td>
<td>10.0</td>
<td>4.63 Agr.</td>
<td>10.0</td>
<td>1,609.95</td>
<td>4.63</td>
</tr>
<tr>
<td>Pump 14</td>
<td>3102-02</td>
<td>1</td>
<td>Agr.</td>
<td>4.50</td>
<td>2.58 Agr.</td>
<td>4.50</td>
<td>961.70</td>
<td>2.58</td>
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<td>Pump 15</td>
<td>2282-02</td>
<td>1</td>
<td>Agr.</td>
<td>4.50</td>
<td>3.10 Agr.</td>
<td>4.50</td>
<td>1,131.50</td>
<td>3.10</td>
</tr>
<tr>
<td>Pump 16</td>
<td>2203-02</td>
<td>1</td>
<td>Agr.</td>
<td>4.50</td>
<td>2.76 Agr.</td>
<td>4.50</td>
<td>1,007.40</td>
<td>2.76</td>
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<tr>
<td>Subtotal (Waialua Sugar Co.)</td>
<td></td>
<td>70</td>
<td></td>
<td></td>
<td>89.75</td>
<td>48.38</td>
<td>89.75</td>
<td>17,658.70</td>
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<td><strong>Board of Water Supply</strong></td>
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<tr>
<td>Waialua Wells</td>
<td>3405-01, 02</td>
<td>2</td>
<td>Mun.</td>
<td>4.32</td>
<td>1.72 Mun.</td>
<td>4.32</td>
<td>621.45</td>
<td>1.73</td>
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<tr>
<td><strong>Private Users</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kawaguchi, Howard</td>
<td>3506-07</td>
<td>1</td>
<td>Agr.</td>
<td>0.180</td>
<td>0.058 Agr.</td>
<td>0.180</td>
<td>21.17</td>
<td>0.058</td>
</tr>
<tr>
<td>Kowalata, Kengo</td>
<td>3406-02</td>
<td>1</td>
<td>Agr.</td>
<td>0.180</td>
<td>0.180 Agr.</td>
<td>0.180</td>
<td>36.5</td>
<td>0.1</td>
</tr>
<tr>
<td>Kunihito, Shizuo</td>
<td>3406-06, 3407-02</td>
<td>2</td>
<td>Agr./Dom.</td>
<td>0.180</td>
<td>0.180 No data Agr./Dom.</td>
<td>0.180</td>
<td>73.0</td>
<td>0.2</td>
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<tr>
<td>Oceanic Properties</td>
<td>3405-03, 04</td>
<td>2</td>
<td>Mun./Dom.</td>
<td>2.016</td>
<td>2.016 No data Mun./Dom.</td>
<td>2.016</td>
<td>365.0</td>
<td>1.0</td>
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<tr>
<td>Polynesian Shores</td>
<td>3404-08</td>
<td>1</td>
<td>Oth.</td>
<td>0.144</td>
<td>0.144 Oth.</td>
<td>0.144</td>
<td>52.56</td>
<td>0.14</td>
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<tr>
<td>Subtotal (Private Users)</td>
<td></td>
<td>7</td>
<td></td>
<td></td>
<td>2.34</td>
<td>0.792</td>
<td>2.34</td>
<td>548.33</td>
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<td><strong>TOTAL - Waialua Subarea</strong></td>
<td></td>
<td>79</td>
<td></td>
<td></td>
<td>96.41</td>
<td>50.212</td>
<td>96.41</td>
<td>18,820.38</td>
</tr>
</tbody>
</table>

*For Agr./Dom. uses, specific quantities for each use are to be prorated when additional information becomes available.*

C9
### Waialua GWCA

<table>
<thead>
<tr>
<th>User/Source</th>
<th>State Wall No.</th>
<th>Total Wells</th>
<th>Source Capacity (mgd)</th>
<th>5-yr Ave Withdrawal (mgd)</th>
<th>Use</th>
<th>Maximum Daily Use (mgd)</th>
<th>Total Annual Use (mgd)</th>
<th>Average Daily Use (mgd)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MOKULEIA Subarea</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Waialua Sugar Co.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump 3</td>
<td>3412-04, 06 to 11, 12</td>
<td>8 Agr.</td>
<td>8.5</td>
<td>2.55</td>
<td>Agr.</td>
<td>7.0</td>
<td>920.75</td>
<td>2.55</td>
</tr>
<tr>
<td>Pump 11</td>
<td>3409-13</td>
<td>1 Agr./ Dom.</td>
<td>1.5</td>
<td>0.53</td>
<td>Agr./ Dom.</td>
<td>1.5</td>
<td>153.20</td>
<td>40.15</td>
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<td>Subtotal (Waialua Sugar Co.)</td>
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<td>9</td>
<td>10.0</td>
<td>3.08</td>
<td>8.5</td>
<td>1,124.20</td>
<td>3.08</td>
<td></td>
</tr>
<tr>
<td><strong>Private Users</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Army - Dillingham</td>
<td>3412-02</td>
<td>1 Dom.</td>
<td>0.720</td>
<td>No data</td>
<td>Dom.</td>
<td>0.720</td>
<td>20.09</td>
<td>0.055</td>
</tr>
<tr>
<td>Air Force - Keana Pt.</td>
<td>3314-03</td>
<td>1 Utl.</td>
<td>0.006</td>
<td>0.018</td>
<td>Utl.</td>
<td>0.006</td>
<td>0.97</td>
<td>0.011</td>
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<tr>
<td>Mokuleia Assoc.</td>
<td>3409-10</td>
<td>1 Dom.</td>
<td>No data</td>
<td>No data</td>
<td>Dom.</td>
<td>-0.0</td>
<td>-0.0</td>
<td>-0.0</td>
</tr>
<tr>
<td>Mokuleia Homesteads</td>
<td>3410-01</td>
<td>1 Agr./Dom.</td>
<td>1.512</td>
<td>1.5</td>
<td>Agr./ Dom.</td>
<td>1.5</td>
<td>547.50*</td>
<td>1.5*</td>
</tr>
<tr>
<td>Mokuleia Homesteads</td>
<td>3410-03</td>
<td>1 Agr./Dom.</td>
<td>1.5</td>
<td>1.5</td>
<td>Agr./ Dom.</td>
<td>1.5</td>
<td>382.25</td>
<td>1.05</td>
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<tr>
<td>Mokuleia Homesteads</td>
<td>3410-05</td>
<td>1 Agr.</td>
<td>1.5</td>
<td>1.5</td>
<td>Agr./ Dom.</td>
<td>1.5</td>
<td>72.00</td>
<td>0.20</td>
</tr>
<tr>
<td>Mokuleia Homesteads</td>
<td>3310-01</td>
<td>1 Agr./Dom.</td>
<td>1.5</td>
<td>No data</td>
<td>Agr./ Dom.</td>
<td>1.5</td>
<td>382.25</td>
<td>1.05</td>
</tr>
<tr>
<td>Mokuleia Homesteads</td>
<td>3310-02</td>
<td>1 Agr./Dom.</td>
<td>1.5</td>
<td>No data</td>
<td>Agr./ Dom.</td>
<td>1.5</td>
<td>72.00</td>
<td>0.20</td>
</tr>
<tr>
<td>Subtotal (Private Users)</td>
<td></td>
<td>8</td>
<td>5.318</td>
<td>2.118</td>
<td>5.806</td>
<td>1,665.43</td>
<td>4.873</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL - Mokuleia Subarea</strong></td>
<td></td>
<td>17</td>
<td>15.318</td>
<td>5.198</td>
<td>13.806</td>
<td>2,793.25</td>
<td>7.353</td>
<td></td>
</tr>
<tr>
<td><strong>KAWAILOA Subarea</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waialua Sugar Co.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump 4</td>
<td>3605-02 to 04, 06 to 08, 11 to 13</td>
<td>9 Agr.</td>
<td>14.0</td>
<td>5.53</td>
<td>Agr.</td>
<td>14.0</td>
<td>2,018.45</td>
<td>5.53</td>
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<tr>
<td><strong>Private User</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newlow Gold Farm</td>
<td>3704-01</td>
<td>1 Ind.</td>
<td>0.648</td>
<td>0.430</td>
<td>Ind.</td>
<td>0.648</td>
<td>156.95</td>
<td>0.430</td>
</tr>
<tr>
<td><strong>TOTAL - Kawailoa Subarea</strong></td>
<td></td>
<td>10</td>
<td>16.648</td>
<td>5.96</td>
<td>14.648</td>
<td>2,175.40</td>
<td>5.960</td>
<td></td>
</tr>
</tbody>
</table>

*For Agr./Dom. uses, specific quantities for each use are to be prorated when additional information becomes available.*

C10
WATER USE PERMIT NO. 049

This report has been prepared in accordance with 13-171-22(b) of the Hawaii Revised Statutes requiring a 20-year review of issued water use permits to determine permit compliance. Following is a summary of permit information, site characteristics, methodology, findings, and recommendations for this State permit file.

**Permit Information**

- **Water User:** Dole Food Company, Inc.
  1116 Whitmore Ave.
  Wahiawa, HI 96786
- **Landowner of Source:** Dole Food Company, Inc.
  1116 Whitmore Ave.
  Wahiawa, HI 96786
- **Permitted Withdrawal Rate:** 0.530 mgd (Based upon a 12-month moving average)
- **Water Management Area:** Mokuleia
- **Island:** Oahu
- **Aquifer Sector/System:** North/Mokuleia
- **System Sustainable Yield:** 12 mgd
- **Water Type:** N/A
- **Original CWRM Date:** May 25th, 1981
- **Standard Conditions:** N/A
- **Special Conditions:** N/A

**Water Source**

- **State Well Number(s):** 3409-13
- **Well Name:** Pump 11
- **Water Source TMK Number(s):** 1st Division, 6-8-003:043
- **State Land Use Classification(s):** Agriculture
- **County Zoning Classification(s):** AG-1
- **Geographical Coordinates:**
  Latitude 21° 34’ 27.7" North
  Longitude 158° 09’ 44.1" West

**End Use**

- **End Use TMK Number(s):** 1st Division, 6-8-003:043, 6-8-007:002
- **State Land Use Classification(s):** Agriculture
- **County Zoning Classification(s):** AG-1
- **Beneficial Use Explanation:** Use for irrigation of diversified agriculture
Background Information

State Well No. 3409-13 is governed by Water Use Permit 049, which was issued to Waialua Sugar Company. Although Waialua Sugar Company is no longer in existence, this permit, along with several others is still issued to the organization. Since Dole Food Company is now the landowner, Water Use Permit 049 should be transferred to reflect this change.

There is no application for a water use permit on file for this well. A declaration of existing water use was given to the Commission on May 25th, 1981. This water source has been in use for at least 60 years with Dole Food Company, Inc. using it for the past 14. Reports of water use and salinity levels are not available for State Well No. 3409-13. During the research phase of this project, standard and special conditions for Water Use Permit 049 were not available. As such, conditions are not included in this report. A complete list of all standard and special conditions is given in the permit file.

Field Investigation Information

Contact: Gary Paracuelles
Site Address: Pump 11
Waialua, HI 96791

Brown and Caldwell conducted a field investigation on July 28th, 2008 from with Mr. Gary Paracuelles in conjunction with several other water use permits that are issued to the same permittee. During this time, type of water usage was verified, GPS coordinates of well head(s) were recorded, flow meter installation and functionality were documented, and property TMK information was verified. The wellhead, its related appurtenances, and water usage area were visually inspected to assess compliance with permit conditions. Visual inspection of water loss/waste was limited to outdoor areas within the usage boundary. The physical location of this site is on the Mauka side of Farrington Highway, near the beginning of Mount Kaala Road. Reference the TMK and GIS maps in the permit file for a visual representation of the site.

Summary of Findings for Water Use Permit No. 049

State Well No. 3409-13 is located on TMK parcel 6-8-003:043 at 21° 34' 27.7" N, 158° 09' 44.1" W, with a real time accuracy of ±22 feet. At the time of the field investigation, the well was out of service and no water was being drawn. There appeared to be no flowmeter installed on any of the distribution piping. The permittee has advised that State Well No. 3409-13 was formerly used for backup irrigation of diversified agriculture on TMK parcels 6-8-003:043 and 6-8-007:002. The aforementioned parcels are primarily serviced by water delivered to the site from
the Wahiawa Reservoir. Dole Food Company, Inc. is currently in the process of selling this particular parcel of land and the water rights from State Well No. 3409-13 to Pioneer Hi-Bred International. However, at the time of this report, the sale had not yet gone through. Reference the Appendix for photographs of the previously described system components.

Since no conditions were available for this permit, it is difficult to ascertain whether or not the permittee is in compliance with their water use permit. Assuming that the typical standard conditions apply, permit compliance can be assessed. However, before taking action on this permit, verification of permit conditions should be conducted to ensure that the permittee is not being held accountable for conditions not associated with Water Use Permit 049. With that being said, the following are a list of potential standard condition(s) that the permittee could be in non-compliance with:

(10) An approved flowmeter must be installed to measure monthly withdrawals and a month 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.

After inspection, it was found that the permittee is not submitting monthly water use and salinity level reports to the Commission for State Well No. 3409-13.

Recommendations

- Address the following discrepancies between the Commission’s electronic database and actual field investigation findings:
  - Permittee and landowner name and address information
  - Change permittee contact to Gary Paracuelles at (gary.m.paracuelles@na.dole.com)
  - Source and end use TMK numbers
  - Beneficial use description
  - State land use and county zoning classifications
- Address potential violation of Standard Condition (10) regarding non-reporting of water use and salinity levels.
- Determine the Standard and Special Conditions associated with Water Use Permit 049
- Address issue of the need for a permit transfer to change permittee from Waialua Sugar Company to Dole Foods, Inc.
20-Year Water Use Permit Review
Water Use Permit No. 049

APPENDIX

Field Investigation Photographs
Figure 1 – Well house

Figure 2 – State Well No. 3409-13
Figure 3 - Typical end use area

Figure 4 - Typical end use area
Water Use Permit Survey

(Please complete one survey form for each WUP)

WUP Number: 0490
Well Number(s): 3619-13

Contact Information (of the person who will be present at site visit):
Name: Gary M. Paracuelles
Phone (for phone interview): [redacted] Fax: [redacted]
Email: [gary.m.paracuelles@na.dole.com]

Best time to reach for phone interview: Mon-Fri 8am to 4pm

Property Information (of the water use/well location):
Address:
City: Zip:

Well Location TMK (list all if multiple wells present): 6-8-003-004
Water Use TMK (list all if used on multiple lots): 6-8-003-004

Water Use/Well Information:
Is the water source currently in use? Yes ☐ No ☐
If no, please explain: In need of repair, not needed at this time...

What are you currently using the water for? (example: "Use for 45 acres of diversified agriculture and 3 residences"): 

Is a flow meter installed and working properly? Yes ☐ No ☐
If no, please explain:

Do you submit monthly water use reports to the State? Yes ☐ No ☐
If no, please explain:

Field Investigations:
A representative from Brown and Caldwell will be visiting wells in your area over the next several months between the times of 9:00 am and 5:00 pm. Each site investigation will take approximately 1-2 hours. Please indicate up to three potential days of the week and availability times for an on-site inspection of the well location and verification of water use compliance. The permit holder must provide Brown and Caldwell with at least five (5) working days notice of the need to reschedule.

Option #1 Date (M-D-Y):__________ Time: 9:00 am ☐ 12:00 pm ☐ 3:00 pm ☐
Option #2 Date (M-D-Y):__________ Time: 9:00 am ☐ 12:00 pm ☐ 3:00 pm ☐
Option #3 Date (M-D-Y):__________ Time: 9:00 am ☐ 12:00 pm ☐ 3:00 pm ☐

Once this survey is returned, a Brown and Caldwell representative will be contacting you to conduct a phone interview and finalize the exact date and time of your field investigation. Please fax/mail completed surveys by December 12th, 2007 and direct any questions related to this survey to Mr. Milo Smith of Brown and Caldwell at:
1099 Alaska Street, Suite #2400
Honolulu, HI 96813
Tel: (808) 203-3661
Fax: (808) 533-0226
mcsmith@brownand.com

Received: 7/16/08 Information Updated: 7/16/08 Phone Interview Complete: 7/17/08
Notes/Comments:
Phone Interview

WUP Number: 049 Well Number(s): 3409-13

Contact Name:  Glaury M. Paracuelles Phone Number: __________

Attempt #1: Date/Time: 7/17/01 (10:03) Result: Reached

Attempt #2: Date/Time: N/A Result: N/A

Well Location TMK(s): 6-8-003-004

Water Use TMK(s): 6-8-003-004

Water Source Address: _____________________________________________

City: __________________________________________ Zip Code: __________

Currently using water source? Yes ☐ No ☒

How often is the water source being used? Daily ☐ Weekly ☐ Monthly ☐ N/A • Not in Use

How long have you been using this water source?: N/A

Has there been any rezoning of the water source/water use properties? Yes ☐ No ☒

Have you reported the rezoning to the State? Yes ☐ No ☐ N/A ☒

If no, explain: ______________________________________________________

Scheduled field investigation day/time: 7/26/01 @ 8:00 a.m.

Notes (Special directions, site conditions, potential hazards, general notes, etc.):

Meet at Dole Headquarters on Whitmore Ave.

Comments To Make:

- Although we prefer that you do not change your scheduled field investigation time, if you require a reschedule, you must provide Brown and Caldwell with at least five (5) working days notice of the need to reschedule.
- A representative from Brown & Caldwell will be making a reminder phone call to you sometime during the week prior to your scheduled field investigation.
- It is very important that you provide access to the site at the day and time agreed upon. Due to a very tight schedule, if you fail to provide access at the agreed upon time and/or do not reschedule with at least a five (5) working day notice, a makeup date will not be allowed.
- If for some reason you don’t know where your well head is located, it would be a good idea to locate it prior to your field investigation to help make the visit go quickly and smoothly.

Interviewed By: M.S. Date: 7/17/01 Time: 10:00 a.m.
# Field Investigation Checklist

**WUP Number:** 049  
**Well Number(s):** 3409-13  

## Water Source

<table>
<thead>
<tr>
<th>Well Location TMK(s):</th>
<th>6-8-003-004</th>
<th>6-6-003-003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Head GPS Coordinates:</td>
<td>Latitude: 21° 34' 27.7'' N</td>
<td>Longitude 158° 09' 44.1'' W (± 22 ft)</td>
</tr>
</tbody>
</table>

| Well Type: | Drilled |

| Currently using water source? | Yes ☐ | No ☑ |

| Notes/Comments: | No meter installed |

| Is there a flow meter installed? | Yes ☐ | No ☑ |

| Is the flow meter operational? | Yes ☐ | No ☑ |

| Notes/Comments: | |

## Water Use

| Water Use TMK(s): |  |

| What is the water being used for? | Diversified Agriculture |

| Is the water being used within the permitted boundaries? | Yes ☐ | No ☐ |

| If no, explain | N/A - NO TMK's given in database |

| Is there any observed wasting of water or water loss? | Yes ☐ | No ☑ |

| If no, explain | |

| Are the permit conditions being complied with? | Yes ☐ | No ☑ |

| If no, explain | N/A - NO conditions given in database. |

## Other

| Photographs of: | Water Source ☑ | Usage Area ☑ |

| Water Meter ☐ | Pump/Motor ☐ |

| General Notes/Comments: |

• Currently in process of sale to Pioneer should be going through soon

• Meter already removed - well likely to be taken outside abandoned

• Properties are currently serviced by H1-0 from the Wahiawa Reservoir.

| Investigated By: M.S. | Date: 7/20/06 | Time: 6:00 a.m. |
Standard Conditions List

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 <Insert Date> 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.

Variations of Standard Condition (8) are as follows:
   i. Modification of any permit condition shall be approved by the Commission. Modification of any permit condition without notification may result in the revocation of the water use permit.
9. This permit may be modified by the Commission and the amount of water initially granted to the permittee may be reduced if the Commission determines it is necessary to:
   a. Protect the water sources (quantity or quality);
   b. Meet other legal obligations including other correlative rights;
   c. Insure adequate conservation measures;
   d. Require efficiency of water uses;
   e. Reserve water for future uses, provided that all legal existing uses of water as of June, 1987 shall be protected;
   f. Meet legal obligations to the Department of Hawaiian Home Lands, if applicable; or
   g. Carry out such other necessary and proper exercise of the State's and the Commission's police powers under law as may be required.

Prior to any reduction, the Commission shall give notice of its proposed action to the permittee and provide the permittee an opportunity to be heard.

10. An approved flowmeter(s) must be installed to measure monthly withdrawals and a monthly record of withdrawals, salinity, temperature, and pumping times must be kept and reported to the Commission on Water Resource Management on forms provided by the Commission on a monthly basis (attached).

Variations of Standard Condition (10) are as follows:
   i. The applicant shall keep monthly pumpage estimates to be submitted annually to the Commission.
   ii. 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 yearly basis (attached).
   iii. An approved flowmeter(s) must be installed to measure withdrawals and a monthly record of withdrawals, water-levels, salinity, and temperature must be kept and reported to the Commission on a monthly basis in accordance with the Commission's September 16, 1992 action on reporting requirements.
   iv. Approved flowmeters must be installed to measure monthly withdrawals and a monthly record of withdrawals must be kept and reported to the Commission on Water Resource Management on a monthly basis.
   v. An approved flowmeter(s) must be installed to measure monthly withdrawals and a monthly record of withdrawals, salinity, temperature, and pumping times must be kept and reported to the Commission on Water Resource Management on forms provided by the Commission on a quarterly/yearly basis (attached).
   vi. An approved flowmeter shall be installed to measure water withdrawals
   vii. An approved flowmeter(s) must be installed to measure withdrawals; and a record of the withdrawals must be kept and reported to the Department of
Land and Natural Resources, Division of Water and Land Development, P.O. Box 373, Honolulu, HI 96809, on a monthly basis.

viii. Although not stated as a condition of the permit §13-168-7 HAR requires you to keep a record of your monthly total pumpage, water level, salinity, and water temperature. This information must be submitted to the Commission on a regular monthly basis using the enclosed water use report form.

ix. An approved flowmeter shall be installed and the withdrawal from Well 1851-73 shall be recorded and reported to DLNR on a monthly basis by the owner and/or operator of the well.

x. The withdrawals from these wells shall be recorded and reported to the DLNR on a monthly basis by the BWS.

xi. The applicant shall provide and maintain an approved meter or other appropriate device or means for measuring and reporting water usage on a monthly basis.

xii. The applicant shall provide and maintain an approved meter or other appropriate device or means for measuring and reporting total water usage. Water usage shall be measured on a monthly basis and reported to the Commission.

xiii. The applicant shall provide and maintain an approved meter or other appropriate device or means for measuring and reporting total water usage. Water usage shall be measured on a monthly basis and reported to the Commission along with water level and salinity measurements.

11. This permit shall be subject to the Commission’s periodic review of the <Aquifer> Aquifer System’s sustainable yield. The amount of water authorized by this permit may be reduced by the Commission if the sustainable yield of the <Aquifer> Aquifer System, or relevant modified aquifer(s), is reduced.

12. A permit may be transferred, in whole or in part, from the permittee to another, if:
   a. The conditions of use of the permit, including, but not limited to, place, quantity, and purpose of 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 uses(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 that 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 conservations, 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 or 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 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. 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.

19. Special conditions in the attached cover transmittal letter or attached exhibits are incorporated herein by reference.

20. If the ground-water source does not presently exist, the new well shall be completed, i.e. able to withdraw water for the proposed use on a regular basis, within twenty-four (24) months from the date the water use permit is approved.

Variations of Standard Condition (20) are as follows:

i. The permit may be revoked if work is not started within six months of the date of issuance or if work is suspended or abandoned for six months. The work proposed in the permit application shall be completed within two years from the date of permit issuance.

21. This permit may not be transferred or the use rights granted by this permit sold or in any other way alienated. Pursuant to HRS § 174C-59 and the requirements of Chapter 174C, the Commission on Water Resource Management has the authority to allow the transfer of the permit and the use rights granted by this permit in a manner consistent with HRS § 174C-59. Any such transfer shall only occur with the Commission's prior express written approval. Any sale, assignment, lease, alienation, or other transfer of any interest in this permit shall be void.

22. The water use permit granted shall be an interim water use permit, pursuant to HRS § 174C-50. The final determination of the water use quantity shall be made within five (5) years of the filing of the application to continue the existing use.

23. The water use permit shall be issued only after agricultural review.

24. That scheduled adjustments to Oahu Sugar Co. permitted use shall be initiated upon discontinuance of agricultural uses.
25. The issuance of this permit was approved by the Commission on Water Resource Management at its meeting on <Insert Date>.

26. The permit shall be subject to the review by the Attorney General.

27. The permit holder may be required to relinquish this permit at any time or specified time after issuance to the Board of Land and Natural Resources in accordance with Chapter 166 of Title 13.

28. The applicant shall obtain the necessary land acquisition documents from the Hawaii Housing Authority.
Special Conditions List

1. 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.

2. In the event that the tax map key at the location of the water use is changed, the permittee shall notify the Commission in writing of the tax map key change within thirty (30) days after the permittee receives notice of the tax map key change.

3. The applicant shall contact the Environmental Management Division, State Department of Health, at [Contact Information] concerning “GUIDELINES APPLICABLE TO GOLF COURSES IN HAWAII” date <Insert Date & Version #>.

4. Standard Condition 10 is emphasized, to report consumption on a regular basis.

5. The applicant may continue this existing use of ground water within the limits approved by the Commission, and the actual issuance of the interim permit shall not be a reason to interrupt this existing use.

6. This interim water use permit shall cease to become interim and shall be subject to HRS § 174C-55 upon administrative review of the quantity within five (5) years, provided that all conditions of the use (including the review of the quantity which shall not be greater than the amount initially granted) remain the same. Enforcement of the allocation limit shall be stayed pending staff's review and issuance of a permanent water use permit.

7. As-built drawings of the well and pump, and a complete pumping test record shall be submitted within sixty (60) days.

8. In the event the pump tests show that aquifer boundary conditions do not support the requested withdrawals, the Commission reserves the right to amend this permit, after a hearing, to a level that is supported by the pump tests.

9. The existing use may be continued within the levels approved by the Commission, and the actual issuance of the permit document shall not be a reason to interrupt the approved level of use.

10. The filing of an application by Kukui, Inc. for a new or modified water use permit for the Kualapuu Aquifer in excess of 2.0 mgd (total system withdrawal) shall be just cause for re-consideration of this interim permit by the Commission.

11. Upon completion of a new transmission line for the transport of water use by Well #17, the permit shall be modified to reduce the allocation amount by the additional 79,220 gallons per day allocated for use of the Molokai Irrigation System.

12. Within six (6) months from the date of approval of a water use permit for the well, the applicant shall conduct a feasibility study and submit a report describing
alternative sources of nonpotable water for irrigation uses at the resort area. It is suggested that the developer consider use of dual lines in the subdivisions so that effluent may be used in the existing reuse system. Another consideration is the development of brackish water wells in the Kaluakoi Aquifer system for mixing with the effluent generated at the resort.

13. Within six (6) months from the date of approval of a water use permit for the well, the application shall evaluate the filter back discharges into Kakaako Gulch to determine if excessive preventable waste is occurring and identify possible measures to eliminate or reduce such waste. The evaluation shall be conducted in cooperation with the Commission staff and staff of the Department of Health’s Safe Drinking Water Branch, which regulates the drinking water system.

14. Within six (6) months from the date of approval of a water use permit for the well, the applicant shall 1) implement a leakage control and detection system and compete repairs to prevent such leakage and 2) implement use of xeriscaping and low-flow fixtures.

15. Action on the future use portion of the water use permit application for Well #17 (Well No. 0901-01) is deferred pending the establishment of existing uses in the aquifer. Kukui Inc.’s application for uses in excess of those uses existing on July 15, 1992 will be considered “new” uses and will be taken up by the Commission as soon as other existing use applications have been decided. In the interim,
   a. The Commission shall recognize that there is disagreement between the applicant’s staff calculations of reasonable-beneficial existing use
   b. The Applicant will have the burden of proof to show within six (6) months reasonable-beneficial existing use calculations that support the applicant’s request as opposed to staff’s calculations.
   c. The Commission’s enforcement of the approved existing use allocation will be suspended for six (6) months.

16. The permittee shall submit a notice of intent and written request to continue the use at least ninety (90) days prior to the expiration of the interim five-year permit.

17. The Commission shall delegate to Maui Department of Water Supply the authority to allocate the use of water for municipal purposes, as provided in §174C-48(b).

18. Maui Department of Water Supply shall be exempt from the requirements for permit modifications, as provided in §174C-57(c).

19. The permittee must meter water use and monitor chloride concentrations on a monthly basis and submit monthly reports of water use and chloride concentrations to the Commission.

20. Standard Condition 16 is waived for saltwater wells.

21. The permit will be revoked if (1) stream monitoring shows that pumping the well reduces stream flow, or (2) the electromagnetic resistivity survey indicates that the
well was drilled into a dike compartment, unless the applicant submits a petition for an amendment to the interim instream flow standard with the well completion report. However, no use of the water may be made without a Pump Installation Permit, which cannot be issued during consideration of the amendment of the interim instream flow standard.

22. The applicant shall present the results of the electromagnetic resistivity survey, pump tests, and stream monitoring to a community meeting as well as to the Commission.

23. A final determination of water use quantity shall be made within five (5) years of the filing date of the application (<Insert Date>) to continue existing use.

24. The applicant shall implement, by December 31, 1995, a biological and hydraulic monitoring program for a minimum 2-year period that: 1) documents the existing operating procedure, 2) seeks to identify the impacts of all operating alternatives on Waikolu Stream, and 3) seeks to identify the effectiveness of weir modifications (Dam No. 1). This program shall incorporate the three new wells, Wells #4-6 (Well Nos. 0855-06, -05, &-04, respectively), which may be pumped within the approved limits, for monitoring and testing purposes only. Further, semi-annual reports summarizing data and preliminary findings shall be submitted to the Commission. It is suggested that the Department of Agriculture work with the State Division of Aquatic Resources and other affected agencies to prepare the monitoring program in light of the difficult technical questions raised by this application. A particular concern is the coordination of this monitoring program with the ongoing National Park Service study by Anne Brasher. A draft of this plan shall be submitted to the Commission staff within ninety (90) days for technical review and comment. Results of the monitoring program shall be used to make recommendations to the Commission on any additional use of the wells, and shall be made readily available to all interested parties.

25. That the Commission approves the well construction permit for the Kamiloloa-Waiola Well (Well No. 0759-01), subject to the standard well construction conditions and the special conditions for the pumping well for the aquifer tests.

26. That the Commission authorizes the Chairperson to approve and issue a pump installation permit upon acceptance of adequate pump test result, subject to the standard pump installation conditions.

27. Should the well be used for back-up domestic supply, applicant is advised to contact DOH or otherwise ensure safe drinking water quality is maintained.

28. The applicant shall follow the agreed monitoring plan.

29. If pesticides used by the applicant are found in ground or surface water and can be traced to the applicant's use, the CWRM may revoke the permit immediately upon such finding.
30. Issuance of the interim permit shall be withheld until the reservation of water for DHHL is set by rule. Applicant may continue this existing use within the approved limits.

31. The applicant shall submit well modification and pump installation permit applications for administrative approval by chairperson prior to beginning any work required to complete well.

32. Should any stream flow impacts result from use, petition to amend interim instream flow standards shall be submitted.

33. Should any dewatering result from use, pumping shall cease immediately.

34. Shall submit accurate schematic diagram of distribution system for the battery of 5 wells.

35. Shall be subject to a 6-month independent audit & monitoring.

36. Final pump capacity shall be determined from pump test results & approved administratively by signature of chair.

37. The permittee shall seek and submit to the Commission within ninety (90) days written confirmation from the Department of Land Utilization of the non-conforming use.

38. Pumping shall cease immediately if the chloride reports show that the brackish water developed in the well exceeds 1,000 mg/l of chloride, unless a variance from the chloride limit has been granted. The authority to approve future variance requests is delegated to the chairperson.

39. The duration of the interim permit shall be:
   a. To July 1, 2006, or
   b. Until treated wastewater is available and acceptable for use, or
   c. Until such time that a significant change in permitted, actual, or projected uses or water supply occurs.

40. Action on any interim permit may be initiated by the Commission or any permittee upon letter request or pursuant to §174C-57 Haw. Rev. Stat. (Modification of permit terms).

41. This permit is approved under the assumption that wastewater will become available for reuse as an alternative supply source.

42. Require adherence to the chloride sampling protocol and the submittal of weekly chloride data. The authority to approve variances from the weekly reporting requirement is delegated to the Chairperson.

43. Require adherence to the Conservation Conditions.
44. In the event a water shortage is declared by the Commission, permittees in the <Insert Aquifer System> shall comply with the <Insert Aquifer System> water shortage plan adopted by the Commission.

45. The permittee shall contact the Department of Health, Clean Water Branch and obtain the necessary discharge permit(s).

46. Permit shall be interim and replaces existing WUP for 2051-07 & 11.

47. Applicant shall submit an acceptable archaeological inventory survey report to DHP. If historic sites affected, a plan to mitigate these affects must be accepted by DHP and completed by applicant.

48. Should the well be used for back-up domestic supply, applicant is advised to contact DOH or otherwise ensure safe drinking water quality is maintained.

49. (The permittee) may report monthly pumpage on yearly basis.

50. Prior to issuance of any permits, must submit filing fee for after-the-fact pump installation permit.

51. The term of this permit shall be twenty years from the date of issuance of the permit with a five-year Board review to determine compliance with the provisions of the permit.

52. The amount of water to be withdrawn under this permit shall be 0.19 mgd, averaged annually, for irrigation use. This permitted use of 0.19 mgd when added to a preserved use of 0.27 mgd amounts to a total of 0.46 mgd, averaged annually, which may be withdrawn from well 1646-01.

53. The use authorized by the permit must not interfered substantially and materially with existing individual household uses and existing uses.

54. The use of this well shall be subject to the shortage and emergency powers of the Board of Land and Natural Resources (BLNR).

55. This permit may be suspended or revoked, in accordance with Chapter 166.

56. The permit holder may be required to relinquish this permit to BLNR, in accordance with Chapter 166.

57. The withdrawal from Well 1646-10 shall be recorded and reported to DLNR on a monthly basis by the permittee.

58. In the event that emergency water use occurs, the permittee shall notify the Commission in writing within one (1) day of pumping, to in form the Commission as to the nature of the emergency and the expected duration of the emergency. A water
use report shall also be filed pursuant to Standard Condition 10 and Administrative Rule 13-168-7.

59. Note DOH's requirements related to non-potable water systems (attached to original permit).

60. Standard Condition 16 requiring the submittal of a water shortage plan is waived.

61. All non-potable spigots and piping shall be clearly labeled as "DO NOT DRINK, NON-POTABLE" to prevent direct human consumption.

62. Standard Condition 10 is modified. Due to the inability to take water level measurements, the requirement to measure monthly water levels is waived. In addition, as long as the U.S. Geological Survey is collecting and analyzing the chloride content of the well water, the requirement for the permittee to measure and report chlorides is also waived.

63. Well elevation components must be surveyed by a licensed surveyor and this information must be submitted to commission prior to issuance of permanent permit.

64. The permittee shall obtain approvals from the Department of Health and the U.S. Environmental Protection Agency prior to use of the water.

65. This water use permit, WUP No. <Insert #>, shall supersede WUP No. <Insert #>.

66. WUP No. <Insert #> is revoked

67. Standard Condition 17 is waived.

68. Standard Condition 22 for interim water use permits shall not apply.

69. To supplement our records, we request that you provide a map of the Galbraith Est. lands west of Wahiawa (2100 ac+) and the associated TMK's for use area.

70. Deferred action on portion requested for golf course irrigation pending further refinement of irrigation requirement and a feasibility study for utilization of surface water sources, including Wahiawa Reservoir.

71. Written justification be provided for any 'cushion' of 0.5 mgd.

72. The water use permit shall be an interim permit. The duration of the interim permit shall be until treated wastewater is available and acceptable for use. The permittee shall continue discussions with Honolulu Board of Water Supply regarding the use of reclaimed water.

73. The permittee is put on notice that this is a qualified approval in that this permit may be modified or revoked prior to the expiration of the interim permit if the
Commission decides that the use of additional basal ground water for dust control and landscape irrigation is not reasonable-beneficial use.

74. The permittee encouraged to use drought-tolerant landscaping to conserve water.

75. Should the applicant provide written evidence that the county DHCD approves a 201E exemption for the elderly affordable housing project then the applicant may modify a corresponding portion of their existing aquacultural use to be used by the exemption approved project within the Commission approved water use permit limits under recommendation 5.

76. The applicant shall obtain a water lease/permit from Land Division prior to actual use of the well water.

77. Require the permittee to sign a contract by May 14, 1998 with the City Department of Wastewater Management to buy and use 0.400 mgd of R-1 water for a corresponding reduction in allocation for Well Nos. 1900-02, 17 to 20, and 1901-03.

78. Standard Condition 9 is waived.

79. Standard Condition 10 is modified to exempt the permittee from monthly measurements of salinity and temperature.

80. Standard Condition 10 is waived.

81. Applicant must seek a determination from BLNR and Land Mgt Div as to whether water license required. If required, license must be obtained prior to issuance of permit. If not, permit will be issued w/out further action.

82. Commission defers action on use in excess of 452,000 gpd pending additional info from BWS and further staff analysis.

83. The permit shall be subject to the Commission's sustainable yield review by December 1990.

84. The Commission shall delegate to the Honolulu Board of Water Supply the authority to allocate the use of water for municipal purposes, in accordance with §174C-48(b) HRS.

85. Honolulu Board of Water Supply shall be exempt from the requirements of permit modifications as provided in §174C-57.

86. BWS must participate in discussions, to be coordinated by Commission Staff, regarding a monitoring program to address impacts to Kaneohe Bay water quality, prior to any action on applications for future municipal uses.

87. A pump installation permit application must be made and approved prior to the installation of a permanent pump.
88. The water withdrawn shall be 0.7 mgd for municipal use.

89. The installed pump capacity of the well shall not be more than 700 gpm or 1.01 mgd.

90. The term of permit shall automatically expire twelve months from the date of issuance.

91. The Honolulu Board of Water Supply may continue to submit monthly water data on their own form, provided that the data are submitted in a format that is acceptable to the Commission staff.

92. Standard Condition 7 shall not apply.

93. Standard Condition 22 shall not apply.

94. Standard Condition 10 is modified to exempt the permittee from monthly measurements of salinity and temperature.

95. This permit shall be subject to conditions providing for stream restoration if the Commission determines that additional water should be returned to the streams.

96. HECO 1 mgd for industrial use

97. Campbell Estate 1 mgd for municipal use through BWS, by separate agreement with HECO

98. BWS 1 mgd for municipal use.

99. The permit shall be subject to the Commission’s sustainable yield review by <Insert Date>.

100. The applicant shall obtain the current version of the Department of Health’s Guidelines Applicable to Golf Courses in Hawaii. Where relevant and viable, items of the guidelines should be implemented and sustained appropriately. To obtain the current version, contact the Safe Drinking Water Branch, Environmental Management Division at [Contact Information] (Honolulu).

101. The future use portion of the application shall be deferred until existing uses in the Koolauloa area are established.

102. The water to be withdrawn under this permit shall be a total of 0.03 mgd (0.02 mgd preserved plus an additional 0.01 mgd permitted use), averaged annually, for domestic and irrigation use.

103. Existing well 1851-09 shall be properly sealed by a licensed drilling contractor. A well modification permit application, enclosed, shall be submitted to the Department for approval of the well sealing. A filing fee for sealing the well will not be required.
104. The permittee is required to test the source using a certified private laboratory and submit the test results to the Commission within three (3) months. The Commission will then forward the results to the Department of Health for their review. The Department of Health recommends that the well be routinely tested for microbiological and chemical parameters thereafter.

105. The permittee is required to submit a completed Registration of Well and Declaration of Water use by <Insert Date>.

106. The permittee shall contact the Department of Health for a written determination on the status of their water system and comply with any Department of Health requirements for monitoring and testing.

107. In the event that the original spring source decontaminates, the new well authorized will be shut down.

108. That within each aquifer the total permitted use shall not exceed the sustainable yield.

109. That any water available for allocation shall be for in-district use.

110. That scheduled reductions to Oahu Sugar Co. permitted use shall be initiated upon final termination of an Osco lease or sub-lease, whichever occurs later.

111. That permits for water use issued in accordance with the proposed schedule shall be interim permits subject to review and adjustment by 1995.

112. That the permit shall be an interim permit for a new use which is afforded to existing users as specified in §13-171-20.

113. That the original allocation of 0.200 mgd shall be taken to hearing for possible revocation at a later date to complete the transfer of the water use permit entirely to Well No. 3407-02. This revocation would reduce the current allocation afforded to the Kunihiro Well (Well No. 3406-06) to zero.

114. This allocation incorporates the unspecified domestic needs of the applicant and therefore necessitates a single meter be installed at the well.

115. Should any impacts to nearby wells or streams be established by the use of this well, the applicant shall address these issues to the satisfaction of the Commission.

116. If an economically feasible nonpotable source is identified, the applicant shall convert to the alternative nonpotable source.

117. The permit shall be subject to the Chairperson’s approval of a water use plan recommending possible measures to prevent or minimize saltwater contamination and establish courses of action to follow should the aquifer become to saline to use.
118. Permittee shall provide the necessary end-use information on the 10th residence to allow regulation of the use under Chapter 174C.

119. Standard Conditions 10 & 18 shall not apply.

120. Standard Condition 10 is modified to exempt the permittee from the requirement to install a flowmeter. Salt water withdrawals may instead be estimated based on pumping capacity and run time.

121. The applicant shall review the existing year long period of pumpage and streamflow data and provide analysis on ground and surface water interaction. Deadline is January 25, 1994.

122. The water use permit for Well Nos. 2301-27 to -32 for 0.75 mgd (WUP No. 419) shall be revoked upon issuance of a pump installation permit for the well.

123. The permittee shall use mulching to decrease evaporative losses and manage irrigation scheduling to minimize water demand.

124. The permittee shall submit a detailed agricultural plan to support any future water use permit application for increased agricultural use at this parcel.

125. If not already obtained, the permittee shall seek and obtain any necessary permits from the Department of Health for the proposed discharge to Malaekahana Stream.

126. Standard Condition 10 is modified to waive the requirement for installing a water meter on Well Nos. 2358-21, 22, and 29. The permittee shall install a water meter on Well No. 2358-26 to measure total monthly flow through the discharge line. This quantity should then be assumed to be the rate of natural flow from the other three wells for monthly reporting purposes.

127. The permit shall be effective upon submittal of documentation by Navy that it has met the DOH requirements for a public system.

128. This WUP shall be subject to Army's application for a WUP to reduce the permitted use of the Army's Schofield Shaft (2901-02 to 04, 10) by 0.208 mgd to a new total of 5.648 mgd. The Army's application shall be submitted within 60 days after the approval of this WUP or this WUP shall be void. Approval of the modification request shall be obtained from the CWRM prior to use of Well No. 3100-02 and issuance of this WUP.

129. Navy shall submit an after-the-fact PIPA, and approval of the permit shall be obtained prior to use of the well.

130. The well shall not be used for drinking water purposes unless it is properly tested and treated.
131. This permit is approved subject to reclaimed water becoming a practical alternative and provided that the Department of Health approves the reuse application.

132. Should any opae ula be recovered in the well water, the permittee shall notify the Division of Aquatic Resources and provide specimens to the Division of Aquatic Resources for analysis.

133. If a single meter at the well is used, the Commission shall allow an additional 1,000 gallons per day to the water use permit amount for the domestic needs of two residences, although a permit for individual domestic consumption is not required. Otherwise, the applicant must provide a meter to separately measure the irrigation consumption.

134. This permit is approved under the requirement that conversion to either: 1) treated wastewater becoming available for reuse as an alternative supply source, provided that Department of Health concerns over the use of treated effluent over the potable water aquifer have been addressed; and/or 2) other nonpotable source becoming available will occur in a timely manner.

135. These permits shall be subject to a review of actual use within four years for possible modification of the permitted amount.

136. The permit shall be reviewed in two (2) years for possible additional revocation due to nonuse.

137. The allocation is based on the projects listed in Exhibit 5 (of Item 10 of the May 20, 1998 Staff Submittal), except for the Queen's Beach GC (TMK 139-11-2,3), Lot 9 (TMK 139-17-51), and Varsity Place (TMK 128-24-35).

138. Kamehameha Schools Bishop Estate/Honolulu Board of Water Supply shall transfer the water use permit within ninety (90) days of the effective date of the transfer of the pump station to the Honolulu Board of Water Supply, pursuant to §174C-59 Hawaii Revised Statutes.

139. The permittee shall ensure that the water is recycled by either directing it into the Waiahole Ditch for use by downstream farmers (subject to the approval of the Agribusiness Development Corporation's Board) or into Waikele Farm's existing irrigation system.

140. The permittee shall file a completed application to modify WUP No. 758 to reduce the allocation by 0.100 mgd within 60 days. If a completed water use permit modification application is not received within 60 days from this submittal's date, then the subject water use permit application (WUPA No. 767) shall be deemed denied without prejudice without the need for another hearing.

141. The water withdrawn shall be for municipal use. No improvements to the existing sources are required as the existing source capacities are greater than the increase.
142. Water license must be determined through LM.

143. Proposed other uses will be considered at a later date.
**STATE OF HAWAII**
**COMMISSION ON WATER RESOURCE MANAGEMENT**
**DEPARTMENT OF LAND AND NATURAL RESOURCES**
**DIVISION OF WATER RESOURCE MANAGEMENT**

**REGISTRATION OF WELL**

**AND DECLARATION OF WATER USE**

**INSTRUCTIONS:** Please type or print. If information is not available or not applicable, indicate as N/A. Fill out as completely as possible, sign, and file form with the Division of Water Resource Management, P.O. Box 373, Honolulu, Hawaii 96809. Phone [insert number] or [insert number] for assistance.

**BATTERY OF WELLS:** For a battery of wells, on the surface, in a tunnel, or in a shaft, submit a registration form for each well together with a single map or plot plan showing layout of wells.

<table>
<thead>
<tr>
<th><strong>STATE WELL NO.:</strong></th>
<th>3409-13</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WELL NAME OR DESIGNATION:</strong></td>
<td>Pump 11</td>
</tr>
<tr>
<td><strong>ISLAND:</strong></td>
<td>Oahu</td>
</tr>
</tbody>
</table>

**A. WELL OPERATOR**

<table>
<thead>
<tr>
<th>Firm name:</th>
<th>Waialua Sugar Co.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact person:</td>
<td>Milton Agader</td>
</tr>
<tr>
<td>Address:</td>
<td>P.O. Box 665</td>
</tr>
<tr>
<td>Waialua, HI</td>
<td></td>
</tr>
</tbody>
</table>

| **SOURCE OR STATION NAME (For a battery of wells):** | Hakuleia Bath |

**B. OWNER OF WELL SITE**

<table>
<thead>
<tr>
<th>Firm name:</th>
<th>Castle &amp; Cooke</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact person:</td>
<td>Stephen Sekiya</td>
</tr>
<tr>
<td>Address:</td>
<td>650 Iwilei Rd.</td>
</tr>
<tr>
<td>Honolulu, HI</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Zip:</strong></th>
<th>96791 Phone:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Zip:</strong></td>
<td>96817 Phone:</td>
<td></td>
</tr>
</tbody>
</table>

**C. WELL LOCATION**

<table>
<thead>
<tr>
<th>Tax Map Key:</th>
<th>6-8-03-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town, Place, District:</td>
<td>Waialua</td>
</tr>
</tbody>
</table>

Attach USGS "Quad" map (scale 1:24,000), tax map, or other map showing the well location.

**D. WELL DATA**

For Drilled Wells, submit "as-built" drawing, driller's log, and pump test results, and complete items below.

For Tunnels and Shafts, submit construction drawings, plot plan, or sketch map.

<table>
<thead>
<tr>
<th><strong>Ground elevation (Mean sea level):</strong></th>
<th>ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reference point (Used to measure depth to water):</strong></td>
<td>ft.</td>
</tr>
<tr>
<td><strong>Elevation:</strong></td>
<td>ft.</td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Depth to water (below reference point):</strong></td>
<td>ft.</td>
</tr>
</tbody>
</table>

| **Maximum recorded chloride:** | ppm |
| **Minimum recorded chloride:** | ppm |
| **Maximum chloride in 1987:** | ppm |

**E. INSTALLED PUMP DATA**

<table>
<thead>
<tr>
<th><strong>Pump type:</strong></th>
<th>□ Vertical shaft □ Submersible □ Centrifugal □ Other (specify):</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power:</strong></td>
<td>□ Diesel, ___ HP □ Gas, ___ HP □ Electric, ___ HP □ Other (specify):</td>
</tr>
<tr>
<td><strong>Pump capacity:</strong></td>
<td>1000 gallons per minute</td>
</tr>
<tr>
<td><strong>Pump installation contractor:</strong></td>
<td>Irrigation Technology Corp.</td>
</tr>
</tbody>
</table>

(continued over)

For Official Use Only:

<table>
<thead>
<tr>
<th><strong>Date received:</strong></th>
<th></th>
<th><strong>Date accepted:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Field checked by:</strong></td>
<td>5KS</td>
<td><strong>Date:</strong> 8/16/95</td>
<td><strong>Latitude:</strong> 21-34-39</td>
</tr>
<tr>
<td><strong>Comments:</strong></td>
<td></td>
<td><strong>Longitude:</strong> 158-02-23</td>
<td><strong>State Well No.:</strong> 3409-13</td>
</tr>
</tbody>
</table>

References: Hawaii Revised Statutes, Chapter 174C.
Hawaii Administrative Rules, Chapters 13-167 to 13-171.
PUMP II
Coord: 981.4 2705.7
Tax Key: 6-8-03-4
Date: 4/1/64

NORTH

Pump II
USGS #296

15' Road

See inset

Pipe line not in use
Disconnected

Main

Farmington Hiway

To Mokuleia