State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
Honolulu, Hawaii

June 2, 1993

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:

<table>
<thead>
<tr>
<th>Company</th>
<th>Allocation (mgd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waialua Sugar Company</td>
<td>39.940</td>
</tr>
<tr>
<td>Honolulu BWS</td>
<td>2.730</td>
</tr>
<tr>
<td>Private Users</td>
<td>0.444</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).
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,

RAFT 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
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.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Waialua Sugar Company</td>
<td>39.9</td>
</tr>
<tr>
<td>Board of Water Supply</td>
<td>3.2</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?

   - 2 -
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 Kawaiola Subareas. A compa-
rision 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>Kawaiola</td>
<td>10</td>
<td>5.860</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. CLUCK
Manager-Chief Engineer

APPROVED FOR SUBMITTAL:

SUSUMU ONO, Chairman

Approved by the Board of
Land & Natural Resources
of the meeting held on

ITEM 2-5

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## State of Hawaii
### DEPARTMENT OF LAND AND NATURAL RESOURCES
### 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>Source Use</th>
<th>Source Capacity (mgd)</th>
<th>5-yr. Ave. Withdrawal (mgd)</th>
<th>Maximum Daily Use (mgd)</th>
<th>Total Annual Use (mgd)</th>
<th>Average Daily Withdrawal (mgd)</th>
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</thead>
<tbody>
<tr>
<td><strong>WAIALUA Subarea</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Waialua Sugar Co.</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump 1</td>
<td>3407-04, 05, 06, 14, 15</td>
<td>5</td>
<td>Agr.</td>
<td>6.0</td>
<td>2.33</td>
<td>Agr.</td>
<td>6.0</td>
<td>650.45</td>
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<tr>
<td>Pump 2</td>
<td>3307-01 to 04</td>
<td>9</td>
<td>Agr./ Dom.</td>
<td>10.0</td>
<td>4.37</td>
<td>Agr./ Dom.</td>
<td>10.0</td>
<td>1,555.05*</td>
</tr>
<tr>
<td>Pump 2A</td>
<td>3307-01 to 04, 11 to 14</td>
<td>5</td>
<td>Agr./ Dom.</td>
<td>7.0</td>
<td>4.45</td>
<td>Agr./ Dom.</td>
<td>7.0</td>
<td>1,208.89</td>
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<tr>
<td>Pump 3</td>
<td>35-5-01 to 20</td>
<td>20</td>
<td>Agr./ Dom.</td>
<td>7.0</td>
<td>3.16</td>
<td>Agr./ Dom.</td>
<td>7.0</td>
<td>33.42</td>
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<td>Pump 7</td>
<td>3407-11, 12, 18, 19</td>
<td>4</td>
<td>Agr./ Dom.</td>
<td>5.5</td>
<td>3.93</td>
<td>Agr./ Dom.</td>
<td>5.5</td>
<td>1,368.75</td>
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<td>Pump 8</td>
<td>3506-03, 01</td>
<td>2</td>
<td>Agr./ Dom.</td>
<td>3.0</td>
<td>1.66</td>
<td>Agr./ Dom.</td>
<td>3.0</td>
<td>605.90*</td>
</tr>
<tr>
<td>Pump 9</td>
<td>3406-02</td>
<td>1</td>
<td>Agr.</td>
<td>0.75</td>
<td>0.16</td>
<td>Agr.</td>
<td>0.75</td>
<td>58.4</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</td>
<td>Agr.</td>
<td>12.0</td>
<td>2,446.30</td>
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<td>Pump 17</td>
<td>3404-02</td>
<td>1</td>
<td>Agr./ Dom.</td>
<td>15.0</td>
<td>6.03</td>
<td>Agr./ Dom.</td>
<td>15.0</td>
<td>2,592.27</td>
</tr>
<tr>
<td>Mill Pumps</td>
<td>3407-07 to 10, 16, 17, 20, 21</td>
<td>8</td>
<td>Agr.</td>
<td>10.0</td>
<td>4.63</td>
<td>Agr.</td>
<td>10.0</td>
<td>1,069.05</td>
</tr>
<tr>
<td>Pump 24</td>
<td>3102-02</td>
<td>1</td>
<td>Agr.</td>
<td>4.50</td>
<td>2.58</td>
<td>Agr.</td>
<td>4.50</td>
<td>941.70</td>
</tr>
<tr>
<td>Pump 25</td>
<td>3203-01</td>
<td>1</td>
<td>Agr.</td>
<td>4.50</td>
<td>3.10</td>
<td>Agr.</td>
<td>4.50</td>
<td>1,313.50</td>
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<tr>
<td>Pump 26</td>
<td>3203-02</td>
<td>1</td>
<td>Agr.</td>
<td>4.50</td>
<td>2.76</td>
<td>Agr.</td>
<td>4.50</td>
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<td><strong>Subtotal (Waialua Sugar Co.)</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Board of Water Supply</strong></td>
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</tr>
<tr>
<td>Waialua Wells</td>
<td>3405-01, 02</td>
<td>2</td>
<td>Mun.</td>
<td>4.32</td>
<td>1.72</td>
<td>Mun.</td>
<td>4.32</td>
<td>631.45</td>
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<tr>
<td><strong>Private Users</strong></td>
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<td></td>
<td></td>
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<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</td>
<td>Agr.</td>
<td>0.180</td>
<td>21.17</td>
</tr>
<tr>
<td>Kawamata, Kengo</td>
<td>3406-03</td>
<td>1</td>
<td>Agr.</td>
<td>0.180</td>
<td>0.058</td>
<td>Agr.</td>
<td>0.180</td>
<td>36.5</td>
</tr>
<tr>
<td>Kumihito, Shizuo</td>
<td>3406-06, 3407-02</td>
<td>2</td>
<td>Agr.</td>
<td>0.180</td>
<td>0.058</td>
<td>Agr.</td>
<td>0.180</td>
<td>73.0</td>
</tr>
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<td>Oceana Properties</td>
<td>3405-02, 04</td>
<td>2</td>
<td>Mun.</td>
<td>0.180</td>
<td>0.058</td>
<td>Mun.</td>
<td>0.180</td>
<td>365.0</td>
</tr>
<tr>
<td>Polynesian Stores</td>
<td>3406-08</td>
<td>1</td>
<td>Oth.</td>
<td>0.144</td>
<td>0.056</td>
<td>Oth.</td>
<td>0.144</td>
<td>25.0</td>
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<tr>
<td><strong>Subtotal (Private Users)</strong></td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td><strong>TOTAL - Waialua Subarea</strong></td>
<td>79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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## Waialua GWCA

<table>
<thead>
<tr>
<th>User/Source</th>
<th>State Well No.</th>
<th>Total Wells</th>
<th>Source Use</th>
<th>5-yr. Ave. Withdrawal</th>
<th>Maximum Utility</th>
<th>Total Annual Withdrawal</th>
<th>Average Utility</th>
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<tbody>
<tr>
<td><strong>MOKULEIA Subarea</strong></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>
</tr>
<tr>
<td>Pump 5</td>
<td>3411-04, 06 to 11, 13</td>
<td>8 Agr.</td>
<td>0.5</td>
<td>2.55 Agr.</td>
<td>7.0</td>
<td>930.75</td>
<td>2.55</td>
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<tr>
<td>Pump 11</td>
<td>3409-10</td>
<td>1 Agr./Dom.</td>
<td>1.5</td>
<td>0.53 Agr./Dom.</td>
<td>1.5</td>
<td>153.30</td>
<td>0.42</td>
</tr>
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<td><strong>Subtotal (Waialua Sugar Co.)</strong></td>
<td>9</td>
<td>10.0</td>
<td>3.08</td>
<td></td>
<td>0.5</td>
<td>1,134.20</td>
<td>3.08</td>
</tr>
<tr>
<td><strong>Private Users</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>√ Army - Billingham</td>
<td>3412-02</td>
<td>1 Dom.</td>
<td>0.720</td>
<td>No data Dom.</td>
<td>0.720</td>
<td>20.06</td>
<td>0.055</td>
</tr>
<tr>
<td>√ Air Force - Kealuu Pl.</td>
<td>3314-03</td>
<td>1 Oth.</td>
<td>0.086</td>
<td>0.018 Oth.</td>
<td>0.086</td>
<td>6.37</td>
<td>0.011</td>
</tr>
<tr>
<td>Mokuleia Assoc.</td>
<td>3408-16</td>
<td>1 Dom.</td>
<td>No data</td>
<td>No data Dom.</td>
<td>-0-</td>
<td>-0-</td>
<td>-0-</td>
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<tr>
<td>Mokuleia Homesteads</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>√ 3410-01</td>
<td>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>
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<tr>
<td>√ 3410-03</td>
<td>Agr./Dom.</td>
<td>0.1</td>
<td>0.1</td>
<td>To be sealed Dom.</td>
<td>-0-</td>
<td>-0-</td>
<td>-0-</td>
</tr>
<tr>
<td>√ 3410-05</td>
<td>Agr./Dom.</td>
<td>1.5</td>
<td>1.5</td>
<td>No data Agr./Dom.</td>
<td>1.5</td>
<td>382.25</td>
<td>1.05</td>
</tr>
<tr>
<td>√ 3310-01</td>
<td>Agr./Dom.</td>
<td>1.5</td>
<td>1.5</td>
<td>No data Agr./Dom.</td>
<td>1.5</td>
<td>73.00</td>
<td>0.20</td>
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<tr>
<td>√ 3310-02</td>
<td>Agr./Dom.</td>
<td>1.5</td>
<td>1.5</td>
<td>No data Agr./Dom.</td>
<td>1.5</td>
<td>382.25</td>
<td>1.05</td>
</tr>
<tr>
<td><strong>Subtotal (Private Users)</strong></td>
<td>8</td>
<td>5.318</td>
<td>2.118</td>
<td></td>
<td>5.04</td>
<td>1,649.65</td>
<td>4.57</td>
</tr>
<tr>
<td><strong>TOTAL - Mokuleia Subarea</strong></td>
<td>17</td>
<td>13.318</td>
<td>5.198</td>
<td></td>
<td>13.306</td>
<td>2,793.25</td>
<td>7.353</td>
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<td><strong>KAULALOA Subarea</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Waialua Sugar Co.</td>
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<td>Pump 6</td>
<td>3408-02 to 06, 06 to 08, 11 to 13</td>
<td>9 Agr.</td>
<td>14.0</td>
<td>5.53 Agr.</td>
<td>14.0</td>
<td>2,018.45</td>
<td>5.53</td>
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<td>√ Meadow Gold Farm</td>
<td>3704-01</td>
<td>1 Ind.</td>
<td>0.648</td>
<td>0.420 Ind.</td>
<td>0.648</td>
<td>156.95</td>
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<td><strong>TOTAL - Kaulaio Subarea</strong></td>
<td>10</td>
<td>14.648</td>
<td>3.96</td>
<td></td>
<td>14.648</td>
<td>2,175.40</td>
<td>5.860</td>
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*For Agr./Dom. uses, specific quantities for each use are to be prorated when additional information becomes available.
June 10, 1981

Mr. Masaichi Yamauchi
P.O. Box 41
Haleiwa, Hawaii 96712

Dear Mr. Yamauchi:

Waialua Ground Water Control Area

We acknowledge receipt on June 5, 1981, your Declaration of Existing Water Withdrawal and Use in the Waialua Ground Water Control Area. Our staff will review the data and may contact you for a field inspection of your well(s) before certification of your declared water use is made by the Board of Land and Natural Resources.

We appreciate your early filing of the declaration of existing water use.

Very truly yours,

Robert T. Chuck
Manager-Chief Engineer

ES: dh
<table>
<thead>
<tr>
<th>To</th>
<th>Initial</th>
<th>Initial</th>
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<tr>
<td>Robert T. Chuck</td>
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<tr>
<td>James Yoshimoto</td>
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<td>Manabu Tagomori</td>
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<td>Hong Fong Chang</td>
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<td>Herbert Morimatsu</td>
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<td>George Miyashiro</td>
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<td>Jean Staret</td>
</tr>
<tr>
<td>Noboru Kaneshiro</td>
<td></td>
<td>Elsie Yonamine</td>
</tr>
<tr>
<td>Edwin Sakoda</td>
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<td></td>
</tr>
</tbody>
</table>
DEPARTMENT OF LAND AND NATURAL RESOURCES

DECLARATION OF EXISTING WATER WITHDRAWAL AND USE
Honolulu and Waialua Ground Water Control Areas

Instructions: This form must be properly completed, signed, and submitted for each individual well or connected battery of wells on or before June 4, 1981, in accordance with Regulation 9 of the Department. Submit the form with any attachments to Department of Land and Natural Resources, P.O. Box 373, Honolulu, Hawaii 96809.

1. WATER USER: Name: Masaichi Yamauchi  
Mailing address: Box 41 Hatoaka  
Phone: 637-5992

2. WATER USER'S WELL CONNECTED BATTERY OF WELLS:
User's Well Name and Location: 62-40 Emerson Rd, Hauula  
User's Well No. (s): 3506-07  
Pump or natural flow capacity (gpm): pump 105 gpm  
Capacity determined by flowmeter, nameplate, orifice, etc. (specify): nameplate  
Year pump inst./modified: 1958

3. BENEFICIAL USE OF WATER:
(a) Major Use: ☐ Municipal ☐ Agriculture ☐ Domestic ☐ Other (specify) (specify)
(b) Minor Use: (specify)
(c) For Agriculture Use list crop(s): Guava total acreage irrigated: 4.64

4. BENEFICIALLY USED WATER WITHDRAWALS:
(a) All figures given in (b) are records of: ☐ Metered flow ☐ Nameplate pump capacity  
Orifice ☐ Weir ☐ Other (specify) ☐
(b) Records available:

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<thead>
<tr>
<th>Year</th>
<th>Monthly Average</th>
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<tbody>
<tr>
<td>1975</td>
<td>39.5</td>
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<td>32.7</td>
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<td>1977</td>
<td>22.9</td>
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<td>1978</td>
<td>21.4</td>
</tr>
<tr>
<td>1979</td>
<td>3</td>
</tr>
<tr>
<td>1980</td>
<td>146</td>
</tr>
</tbody>
</table>

(c) For Agriculture Use only: description of withdrawal schedule (include times of day and days of week): 7:00 am to 8:00 am Mon. thru Fri.

5. WELL DESCRIPTION:
On the attached sheet, make corrections or additions thereon in red pencil as necessary and return with Declaration form. If information is readily available in another form, you may submit it in lieu of the corrected sheet.

Declaration: Under penalties provided in Regulation 9 of the Department of Land and Natural Resources, the undersigned declare and certify that this declaration has been examined, including accompanying statements, and to the best of our knowledge and belief, it is true, correct, and complete.

Water User: Masaichi Yamauchi (signature)  
Date: June 3, 1981

Landowner of Well Site: Howard F. Kawahuchi (signature)  
Date: June 3, 1981

For Official Use: Last day to certify: Date certified: Amount certified: WELL(S) No.:
WELL INFORMATION SHEET

Instructions: The following information is currently on file at the Department of Land and Natural Resources, Division of Water and Land Development. If there are any changes, please make the necessary corrections and return to the Department of Land and Natural Resources, P.O. Box 373, Honolulu, Hawaii 96809.

Well Number: 3506-07

Name or Location: Haleiwa

Owner or User: Yamauchi, M.

Year drilled: 1958

Driller: Hawaiian Drilling

Ground Surface Elevation in feet referenced to mean sea level: 24

Casing Diameter in inches: 8

Total depth of well in feet: 30

Casing depth in feet: 30

Major Use:

- Domestic
- Disposal
- Municipal
- Unused
- Lost
- Irrigation
- Sealed
- Recharge
- Industrial
- Observation
- Other (specify)

Static Water Level in feet: 10.0

Chloride content of water in milligrams/liter: 105 - 112

Installed pump capacity in million gallons per day:

Average annual draft in million gallons per day:
WELL ABANDONMENT REPORT

Well Name or Location: ____________________________

State Well No.: ____________ Tax Map Key: ____________________________

Date work completed: ____________ Form completed by: ____________________________

Land Owner: ____________________________

Applicant: ____________________________

Drilling Contractor: ____________________________

Measured Depth: ______ ft. (blank csg.)

Measured Depth: ______ ft. (bottom of csg.)

Measured Depth: ______ ft. (top of sandfill)

Measured Depth: ______ ft. (total depth of well)

Finished Grade El.: ______ ft.

Check material used:

☐ Cement

☐ Sand/Cement

Sand/Cement ratio: ___ / ___

(Return completed form to the Division of Water and Land Development, P.O. Box 373, Honolulu, Hawaii 96809)
Unable to complete form (sketch), is there information under well #3506-07 to complete this form? per Roscoe Moss Company

Thank you for your help

Masa Yamanuchi
P.O. Box 41
Haciwa, 411 96712
WELL ABANDONMENT REPORT

Well Name or Location: 62-140 Emerson Road, Honolulu, Hawaii
State Well No.: 3506-07  Tax Map Key: 1-6-2-012
Date work completed: 10/10/89  Form completed by: Masaichi Yamauchi
Land Owner: Howard Kawaguchi
Applicant: Masaichi Yamauchi
Drilling Contractor: Roscoe Moss Company

Finished Grade El.: 24±ft.

Check material used:
☐ Cement*
☐ Sand/Cement

Sand/Cement ratio: X

* 11 sacks of cement used to fill the well, according to Mr. Yamauchi.

Measured Depth: ___ ft.
(blank csg.)
Measured Depth: ___ ft.
(bottom of csg.)
Measured Depth: ___ ft.
(top of sandfill)
Measured Depth: 30 ft.
(total depth of well)

(Return completed form to the Division of Water and Land Development, P.O. Box 373, Honolulu, Hawaii 96809)
CHECKLIST

✓ (ABANDON)
✓ WELL CONSTRUCTION PERMIT  _PUMP INSTALLATION PERMIT

WELL NAME or LOCATION: Yamauchi Farm Well

WELL NUMBER: 3506-07

OWNER or OPERATOR: Yamauchi Farm

ADDRESS: 66-437 Panlee Road (Box 41)
         Haleiwa, Hawaii 96712

TELEPHONE (contact person): Masaichi Yamauchi (637-5392 (B) 533-3406

Date application received ................................... 8/17/89
Date acknowledged receipt/request more info..................
Date application accepted........................................
Suspense date (90 days)...........................................
Date filing fee deposited........................................ N/A

Application sent to following:

<table>
<thead>
<tr>
<th>Dept. of Health</th>
<th>Date sent</th>
<th>Comments received</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>N/A</td>
</tr>
<tr>
<td>County water board/dept</td>
<td></td>
<td>N/A</td>
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</table>

Date agenda due............................................. N/A
Date submittal due......................................... N/A
Date submittal sent to applicant...........................

Date application ✓ approved or _disapproved... CHAIRMAN SIGNATURE ONLY
Date applicant notified of decision.TYP 9/16/89........ 9/15/89

REMARKS: SEAL & ABANDON WELL

..............................................................
..............................................................
..............................................................
TO: Yamauchi Farm
P.O. Box 41
Haleiwa, Hawaii 96712

In accordance with Chapter 13-171, Water Use, Wells, and Stream Diversion Works, your application to seal and abandon a well at Tax Map Key 6-2-12:12 (see attached map) is approved subject to the following conditions:

1. The Division of Water and Land Development (DOWALD), Geology-Hydrology Section, shall be notified at 548-7619, before any work covered by this permit commences.

2. The Well Abandonment Report form (enclosed) shall be submitted to DOWALD, P.O. Box 373, Honolulu, Hawaii 96809, within 30 days after completion of the work.

3. A licensed well drill contractor shall do the work.

4. The applicant shall comply with all applicable laws, rules, and ordinances.

5. This permit may be revoked if work is not started within six months of date of issuance or if work is suspended or abandoned for six months. The work shall be completed within two years of the date of issuance.

SEP 15 1989

WILLIAM W. PATY, Chairperson
Commission on Water Resource Management

Date of Issuance
Enc. (Well Abandonment Report form)
cc: USGS
    Department of Health,
    Drinking Water Program
    Ground Water Protection Program
    Honolulu BWS
    Roscoe Moss Co.
APPLICATION FOR

X WELL CONSTRUCTION PERMIT

PUMP INSTALLATION PERMIT

INSTRUCTIONS: Please print or type and send completed application with attachments to the Division of Water and Land Development, P.O. Box 373, Honolulu, Hawaii 96804. Application must be accompanied by a non-refundable filing fee of $25.00 payable to the Department of Land and Natural Resources. (Filing fee waived for government agencies.) If necessary, phone 548-1945. Hydrology/Geology Section for assistance.

1. WELL LOCATION

Island Oahu
Tax Map Key 1-6-2-012
Address 62-140 Emerson Road; Haleiwa, HI 96712

(Attach a USGS map (scale 1"=2000') and property tax map showing well location referenced to established property boundaries.)

2. WELL OWNER

Firm Name Yamauchi Farm
Contact Person Masaichi Yamauchi
Address 66-437 Paalaa Road (Box 41)
Haleiwa, HI 96712
Phone 637-5392 (B)533-3406

LANDOWNER

Firm Name
Contact Person Howard Kawaguchi
Address 62-140 Emerson Road
Haleiwa, HI 96712
Phone 637-4358

3. PROPOSED CONTRACTOR FOR: ☐ Well Drilling ☐ Pump Installation

Name Roscoe Moss Company
Address 830 Ahua Street
Honolulu, HI 96819

Contractor's License No. C-2101

4. PROPOSED WORK

☐ Drill New Well ☐ Deepen ☐ Redrill
☐ Alter ☐ Seal ☐ Abandon
☐ Install New Pump ☐ Replace Pump ☐ Modify Pump

(Briefly describe the proposed work and fill in the diagram on the back of this form.)

5. PROPOSED USE

☐ Municipal (including hotels, stores, etc.) ☐ Military
☐ Domestic (individual, noncommercial water systems) ☐ Industrial
☐ Irrigation (specify) ☐ Other (specify)

6. PROPOSED AMOUNT OF WITHDRAWAL gallons per day

7. PROPOSED PUMP INFORMATION

Pump Type: ☐ Vertical Turbine ☐ Submersible ☐ Centrifugal
Motor: ☐ Diesel ☐ Gas ☐ Electric: Rated Horsepower
Rated Pump Capacity gallons per minute (gpm)

Well Owner (print) Masaichi Yamauchi
Signature ____________________________ Date 8/14/79

Landowner (print) Howard Kawaguchi
Signature ____________________________ Date 8/14/79

For Official Use Only:
Field Checked By ____________________________ Date ________________
Latitude ____________________________ Hydrologic Unit ________________
Longitude ____________________________ State Well No. 3506-07
Briefly describe the proposed work:

PROPOSED SECTION OF WELL

Elevation at top of casing ft., msl.

Cement Grout____ ft.

Hole Dia.____ in.

Total Depth____ ft.

Rock Packing____ ft.

Solid Casing:
- Material
- Length____ ft.
- Diameter____ in.
- Wall thickness____ in.

Casing: / /Perforated / /Screen
- Material
- Length____ ft.
- Diameter____ in.
- Wall thickness____ in.
- Openings____ sq. in./L.F.

Open Hole:
- Length____
- Diameter____ in.

Ground Elev.____ ft., msl

*Approximate elevation at time of filing application. Final elevation (msl) by a surveyor licensed by the State must be submitted at start of construction.
Honolulu, HI 96828
Po. Box 631
Commission on Water Resource Management
Dept. of Land and Natural Resources
State of Hawaii
Haleiwa, O'ahu 96712
P.O. Box 41
M. Yamaneh
YAMAUCHI FARM WELL
(Well No. 3506-07)
PROJECT AREA

KAENA PT.

WAIKUNA

KAHUKU

HAUULA

KA'AAWA

WAIIKANE

WAIIALUA

NANAKULI

MAKAHA

EWA

AIEA

HONOLULU

WAIIANALO

HANAUUMA BAY

NORTH

ISLAND OF OAHU
FIELD MEMORANDUM

WELL(S) NO. 3906-07  DATE June 17, 1981

LOCATION 62-140 Emerson Rd., Haleiwa, Oahu

SUBJECT Field check of well.

PRESENT Mrs. Howard F. Kawaguchi, NI and MY - DONALD

FIELD NOTES The well is located in the backyard of the house on 62-140 Emerson Rd. The pumphouse is visible in the corner of the yard (see photo) water from the well is used for squash farm being grown across the street.

There is no flowmeter on the well however, the data is given in KWH. Readings are taken off the electrical meter located on a wooden pole along Emerson Rd.; in front of the yard. There have been no problems encountered with the well or the pump.

The owner of the lot is Mrs. Howard F. Kawaguchi. If we need to get in contact with them we can call Mrs. Howard Kawaguchi at the Miura Store ph. 637-4849. Mr. Matsuzaki Yamashita ph. 637-2392 is presently renting the house and lot.

N. Wada

6/16/81
Mr. Howard F. Kawaguchi  
62-140 Emerson Road  
Haleiwa, Hawaii 96712

Dear Mr. Kawaguchi:

On February 27, 1981, the Board of Land and Natural Resources designated the Honolulu and Waialua Districts as the Honolulu Ground Water Control Area and the Waialua Ground Water Control Area. By this action, the Department of Land and Natural Resources is now responsible for regulating all uses of ground water in these areas.

If you are currently using ground water from any well or spring source, you are required to declare such water use to the Department of Land and Natural Resources if you wish to continue your present use. Specifically, you must fill out, sign, and return the enclosed Declaration of Existing Water Withdrawal and Use form to the Department by June 4, 1981, in accordance with Regulation 9 of the Department of Land and Natural Resources.

According to our records, you have 1 well(s) located on your property (Tax Map Key ). Please complete the enclosed form and return it as soon as possible to: Department of Land and Natural Resources, P.O. Box 373, Honolulu, Hawaii 96809.

If you have any questions or need help in filling out the form, please call the Division of Water and Land Development at 548-7619. Thank you for your cooperation.

Very truly yours,

Susumu Ono  
Chairman of the Board

Enc.
WELL INFORMATION SHEET

Instructions: The following information is currently on file at the Department of Land and Natural Resources, Division of Water and Land Development. If there are any changes, please make the necessary corrections and return to the Department of Land and Natural Resources, P.O. Box 373, Honolulu, Hawaii 96809.

Well Number: 3506-07
Name or Location: Haleiwa
Owner or User: Yamauchi, M.
Year drilled: 1958
Driller: Hawaiian Drilling
Ground Surface Elevation in feet referenced to mean sea level: 24
Casing Diameter in inches: 8
Total depth of well in feet: 30
Casing depth in feet: 30

Major Use:
- [ ] Domestic
- [ ] Disposal
- [ ] Municipal
- [ ] Unused
- [ ] Lost
- [ ] Irrigation
- [ ] Sealed
- [ ] Recharge
- [ ] Industrial
- [ ] Observation
- [ ] Other (specify)

Static Water Level in feet: 10.6
Chloride content of water in milligrams/liter: 105-112
Installed pump capacity in million gallons per day: 
Average annual draft in million gallons per day: 
Well No. Z-3506-07

ANANALE BRIDGE

Sample of
1/2" pipe face off

Pump located on well

GPO 857-700