Fire Closed 1/27/99

See 4159-01 & 02 File
Aquifer System Area Water Use Permit Index (total)

ISLAND OF OAHU

Aquifer System Ground Water Management Area: EWA-KUNIA

Summary for EWA-KUNIA (24 detail records)   Totalling 10.977

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<tr>
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<th>Well No.</th>
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*Summary for EWA-KUNIA (24 detail records)*

Available 5.023

Wednesday, January 06, 2010
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They submitted 2 copies. Returned are via George H'iu

3/12/99
Mr. Michael D. Wilson  
Chairperson  
Commission on Water Resource Management  
Department of Land and Natural Resources  
State of Hawaii

Dear Mr. Wilson:

Water Use Permit (WUP No. 465)  
for Well No. 4159-01 – Kahuku Pump 2

Enclosed please find the original and one copy of WUP No. 465 as requested.

If you need any additional information, please contact me at [contact information]

Sincerely,

Bert L. Hatton  
Manager, Agriculture/Natural Resources

Enclosures

jck:01045302\K10009
GROUND WATER USE PERMIT
WUP NO. 465

PERMITTEE

Applicant/Water User
Address: The Estate of James Campbell

Landowner of Source
Address: The Estate of James Campbell

PERMITTED SOURCE INFORMATION

Island: Oahu
Water Management Area: Koolauloa
Aquifer Sector: Windward
Aquifer System: Koolauloa
System Sustainable Yield: 35 mgd
Well Name: Kahuku Pump 2
State Well No.: 4159-01

PERMITTED USE INFORMATION

Reasonable beneficial use: Agricultural (based on 505 acres of diversified crops)
Withdrawal (12 month moving ave.): 1.174 mgd
Location of water use:
TMK #: 5-7-01:021, 5-6-05:006 & 007
Address: Kawela
State land use classification: AG-1
County zoning classification:-------

Pursuant to Hawaii's State Constitution, Article XI, Section 7, Hawaii Revised Statutes, Chapter 174C; Hawaii Administrative Rules, Chapters 13-167 through 13-171; and Hawaii decisional law and custom, the applicant is hereby authorized to use ground water from the sources and in the amount and from and upon the locations described above; subject however, to the requirements of law including but not limited to the following conditions:
1. The water described in this water use permit may only be taken from the location described and used for the reasonable beneficial use described at the location described above. Reasonable beneficial uses means "the use of water in such a quantity as is necessary for economic and efficient utilization which is both reasonable and consistent with State and County land use plans and the public interest." (HRS § 174C-3)

2. The right to use ground water is a shared use right.

3. The water use must at all times meet the requirements set forth in HRS § 174C-49(a), which means that it:
   a. Can be accommodated with the available water source;
   b. Is a reasonable-beneficial use as defined in HRS § 174C-3;
   c. Will not interfere with any existing legal use of water;
   d. Is consistent with the public interest;
   e. Is consistent with State and County general plans and land use designations;
   f. Is consistent with County land use plans and policies; and
   g. Will not interfere with the rights of the Department of Hawaiian Home Lands as provided in section 221 of the Hawaiian Homes Commission Act and HRS § 174C-101(a).

4. The ground water use here must not interfere with surface or other ground water rights or reservations.

5. The ground water use here must not interfere with interim or permanent instream flow standards. If it does, then:
   a. A separate water use permit for surface water must be obtained in the case an area is also designated as a surface water management area;
   b. The interim or permanent instream flow standard, as applicable, must be amended.

6. The water use authorized here is subject to the requirements of the Hawaiian Homes Commission Act, as amended, if applicable.

7. The water use permit application and submittal, as amended, approved by the Commission at its January 14, 1998 meeting are incorporated into this permit by reference.

8. Any modification of the permit terms, conditions, or uses may only be made with the express written consent of the Commission.

9. This permit may be modified by the Commission and the amount of water initially granted to the permittee may be reduced if the Commission determines it is necessary to:
   a. protect the water sources (quantity or quality);
   b. meet other legal obligations including other correlative rights;
   c. insure adequate conservation measures;
   d. require efficiency of water uses;
   e. reserve water for future uses, provided that all legal existing uses of water as of June, 1987 shall be protected;
   f. meet legal obligations to the Department of Hawaiian Home Lands, if applicable; or
   g. carry out such other necessary and proper exercise of the State's and the Commission's police powers under law as may be required.

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

10. 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.

11. 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).

12. This permit shall be subject to the Commission's periodic review of the Koolauloa 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 Koolauloa Aquifer System, or relevant modified aquifer(s), is reduced.
13. A permit may be transferred, in whole or in part, from the permittee to another, if:
   a. The conditions of use of the permit, including, but not limited to, place, quantity, and purpose of the use, remain the same; and
   b. The Commission is informed of the transfer within ninety days.

Failure to inform the department of the transfer invalidates the transfer and constitutes a ground for revocation of the permit. A transfer which involves a change in any condition of the permit, including a change in use covered in HRS § 174C-57, is also invalid and constitutes a ground for revocation.

14. The use(s) authorized by law and by this permit do not constitute ownership rights.

15. The permittee shall request modification of the permit as necessary to comply with all applicable laws, rules, and ordinances which will affect the permittee's water use.

16. The permittee understands that under HRS § 174C-58(4), that partial or total nonuse, for reasons other than conservation, of the water allowed by this permit for a period of four (4) continuous years or more may result in a permanent revocation as to the amount of water not in use. The Commission and the permittee may enter into a written agreement that, for reasons satisfactory to the Commission, any period of nonuse may not apply towards the four-year period. Any period of nonuse which is caused by a declaration of water shortage pursuant to section HRS § 174C-62 shall not apply towards the four-year period of forfeiture.

17. 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 Koolauloa Ground Water Management Area.

18. The water use permit granted shall be an interim water use permit, pursuant to HAR § 13-167-3(6). The final determination of the water use quantity shall be made within five years of the filing of the application.

19. 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.

20. Special conditions in the attached cover transmittal letter are incorporated herein by reference.

21. 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.

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed.

Applicant's Signature: Donna B. Goth

Printed Name: Donna B. Goth

Firm or Title: Director, Hawaii Properties

Date: 1/20/99

Please sign both copies of this permit, return one to the Commission, and retain the other for your records.

Attachment

c: Honolulu Board of Water Supply
Ms. Donna B. Goth
The Estate of James Campbell

Dear Ms. Goth:

Water Use Permit (WUP No. 465) for Well No. 4159-01
Koolauloa Ground Water Management Area, Oahu

It has been brought to our attention that the tax map key parcel designations are incomplete on the permit that was issued on January 26, 1998. We are transmitting to you the corrected permit. Please note that all conditions of the original cover letter apply.

If you have any questions, please call Mr. Ryan Imata of the Commission staff at [redacted]

Aloha,

[Signature]

MICHAEL D. WILSON
Chairperson

Attachments
# GROUND WATER USE PERMIT

**WUP NO. 465**

## PERMITTEE

<table>
<thead>
<tr>
<th>Applicant/Water User</th>
<th>Landowner of Source</th>
</tr>
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<tbody>
<tr>
<td>The Estate of James Campbell</td>
<td>The Estate of James Campbell</td>
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## PERMITTED SOURCE INFORMATION

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## PERMITTED USE INFORMATION

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<th>Agricultural (based on 505 acres of diversified crops)</th>
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<td>Withdrawal (12 month moving ave.)</td>
<td>1.174 mgd</td>
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<tr>
<td>Location of water use</td>
<td>5-7-01:021, 5-6-05:006 &amp; 007</td>
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<td>TMK #</td>
<td>Kawela</td>
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<td>Address</td>
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<td>State land use classification</td>
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<td>County zoning classification</td>
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</table>

Pursuant to Hawaii’s State Constitution, Article XI, Section 7, Hawaii Revised Statutes, Chapter 174C; Hawaii Administrative Rules, Chapters 13-167 through 13-171; and Hawaii decisional law and custom, the applicant is hereby authorized to use ground water from the sources and in the amount and from and upon the locations described above; subject however, to the requirements of law including but not limited to the following conditions:
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   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;
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   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 January 14, 1998 meeting are incorporated into this permit by reference.

8. Any modification of the permit terms, conditions, or uses may only be made with the express written consent of the Commission.

9. This permit may be modified by the Commission and the amount of water initially granted to the permittee may be reduced if the Commission determines it is necessary to:
   a. Protect the water sources (quantity or quality);
   b. Meet other legal obligations including other correlative rights;
   c. Insure adequate conservation measures;
   d. Require efficiency of water uses;
   e. Reserve water for future uses, provided that all legal existing uses of water as of June, 1987 shall be protected;
   f. Meet legal obligations to the Department of Hawaiian Home Lands, if applicable; or
   g. Carry out such other necessary and proper exercise of the State's and the Commission's police powers under law as may be required.

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

10. 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.

11. 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).

12. This permit shall be subject to the Commission's periodic review of the Koolauloa 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 Koolauloa Aquifer System, or relevant modified aquifer(s), is reduced.
13. A permit may be transferred, in whole or in part, from the permittee to another, if:
   a. The conditions of use of the permit, including, but not limited to, place, quantity, and purpose of the use, remain the same; and
   b. The Commission is informed of the transfer within ninety days.

Failure to inform the department of the transfer invalidates the transfer and constitutes a ground for revocation of the permit. A transfer which involves a change in any condition of the permit, including a change in use covered in HRS § 174C-57, is also invalid and constitutes a ground for revocation.

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15. The permittee shall request modification of the permit as necessary to comply with all applicable laws, rules, and ordinances which will affect the permittee's water use.

16. The permittee understands that under HRS § 174C-58(4), that partial or total nonuse, for reasons other than conservation, of the water allowed by this permit for a period of four (4) continuous years or more may result in a permanent revocation as to the amount of water not in use. The Commission and the permittee may enter into a written agreement that, for reasons satisfactory to the Commission, any period of nonuse may not apply towards the four-year period. Any period of nonuse which is caused by a declaration of water shortage pursuant to section HRS § 174C-62 shall not apply towards the four-year period of forfeiture.

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18. The water use permit granted shall be an interim water use permit, pursuant to HAR § 13-167-3(6). The final determination of the water use quantity shall be made within five years of the filing of the application.

19. 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.

20. Special conditions in the attached cover transmittal letter are incorporated herein by reference.

21. 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.

________________________
Michael D. Wilson, Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed.

Applicant's Signature: ______________________________ Date: __________________

Printed Name: ______________________________ Firm or Title: ______________________________

Please sign both copies of this permit, return one to the Commission, and retain the other for your records.

Attachment
c: Honolulu Board of Water Supply
May 18, 1998

Mr. Edwin T. Sakoda  
Acting Deputy Director  
Commission on Water Resource Management  
Department of Land and Natural Resources  
State of Hawaii  

Dear Mr. Sakoda:

Subject: Your Letter Dated April 14, 1998 Requesting Additional Information on Campbell Estate Kahuku Well No. 4159-01

Thank you for your letter. We have searched our files and have no information on the depth of well or casing. The information you seek can be obtained during the sealing process by use of your well logger.

As indicated in our letter, however, the Campbell Estate claim of spring flow is incorrect. We attach for your information a drawing from Kahuku Plantation records confirming that the well is indeed located at the claimed spring.

If you have any questions, please contact Chester Lao at [redacted]

Very truly yours,

[Signature]

BROOKS H. M. YUEN  
Acting Manager and Chief Engineer

Attachment
FACSIMILE TRANSMITTAL

To: George Hiu
Company: The Estate of James Campbell
Fax Number: 6
Phone Number:

Notes/Comments:
Mr. Brooks Yuen  
Acting Manager and Chief Engineer  
Honolulu Board of Water Supply

Dear Mr. Yuen:

Water Use Permit for Kahuku Pump 2 (Well No. 4159-01)

This is in response to your letter dated March 20, 1998 regarding the Kahuku Pump 2A (State Well No. 4159-02). Please provide any additional information you may have (i.e. well dimensions, etc.) which would help us in establishing requirements for the repair or abandonment and sealing of this well. Additionally, please submit any information you may have with respect to the quantity and/or quality of flow from this site. Information provided would be useful in helping us prepare the requirements for future work on this well.

If you have any questions, please contact Mr. Ryan Imata of the Commission staff at [redacted].

Sincerely,

[Signature]
EDWIN T. SAKODA  
Acting Deputy Director

cc: The Estate of James Campbell
Ms. Donna Goth
The Estate of James Campbell

Dear Ms. Goth:

Water Use Permit for Kahuku Pump 2 (Well No. 4159-01)

We have received a letter from the Board of Water Supply regarding the Kahuku Pump 2A (Well No. 4159-02), which we have attached for your use. Please provide a written response within two (2) weeks from the date of this letter.

If you have any questions, please contact Mr. Ryan Imata of the Commission staff at [redacted].

Sincerely,

[Signature]
EDWIN T. SAKODA
Acting Deputy Director

RI:ss
Attachment

c: Honolulu Board of Water Supply
Mr. Edwin T. Sakoda, Acting Director  
Commission on Water Resource Management  
Department of Land and Natural Resources  
State of Hawaii  

Dear Mr. Sakoda:


Thank you for the opportunity to clarify our comments. We have no objections to the three options stated in your letter.

However, it should be noted that the water flowing into the ditch towards Kahuku Pump No. 2 (Well No. 4159-01) is actually leakage from Kahuku Pump No. 2A (Well No. 4159-02), and not a spring flow as stated. The current free flow from the leaking well exceeds the requested use of 1.174 mgd, from which a water quality sample of February 18, 1998 indicated a chloride content of 240 ppm.

Therefore, Kahuku Pump No. 2A should be repaired or sealed to prevent the wasting of water from the aquifer. This will also provide a controlled flow to maintain aquifer withdrawal within the requested use of 1.174 mgd.

If you have any questions, contact Chester Lao at [redacted].

Very truly yours,

[Signature]

RAYMOND H. SATO
Manager and Chief Engineer
Mr. Raymond H. Sato  
Manager and Chief Engineer  
Honolulu Board of Water Supply

Dear Mr. Sato:

Water Use Permit Application for Campbell Estates Well No. 4159-01

On January 14, 1998, Mr. George Kuou of your office attended our Commission Meeting to provide comments on the application for a Water Use Permit by the Estate of James Campbell for the use of 1.174 mgd for Kahuku Pump 2 (Well No. 4159-01). Mr. Kuou stated that there were no objections to the application. However, there are three possible options for non-objection, as follows:

1) No objection to the original application, which requested an increase of allocation for Kahuku Pump 2 (Well No. 4159-01) for a total of 1.174 mgd. Since the withdrawal will be from a spring fed ditch, there will be no increased pumpage from the aquifer.

2) No objection to the amended application, where water will be introduced from Kahuku Pump 2a (Well No. 4159-02) into the trench that leads to Kahuku Pump 2. While this proposal will decrease chlorides being applied for irrigation, it will require an additional 1.174 mgd to be removed from the aquifer and thus decrease the availability of water from the Koolauloa Aquifer System.

3) Both 1 and 2.

Please clarify BWS’s non-objection to this water use permit application.

If you have any questions, please contact Mr. Ryan Imata of the Commission staff at

Sincerely,

EDWIN T. SAKODA  
Acting Deputy Director

c: The Estate of James Campbell
COMMISSION ON WATER RESOURCE MANAGEMENT

FROM: Reagan
DATE: 1/20/98
SUSPENSE DATE

TO: 
INIT. 
TO: 
INIT. 
FOR: 
PLEASEx

BAUER, G. 
CHING, F. 
FUJII, N. 
HARDY, R. 
HIGA, D. 
HIRANO, E. 
ICE, C. 
IMATA, R. 
JINNAI, R. 
KUNIMURA, I. 
LOUI, R. 
NAKAMA, L. 
NAKANO, D. 
OIE, E. 
SUBIA, S. 
SWANSON, S. 
UWAIN, J. 
YODA, K. 

Approval 
Signature 
Information 
See Me 
Review & Comment 
Take Action 
Type Draft 
Type Final 
File 
Xerox ___ copies 

1/21/98 dot printed - CM
Ms. Donna B. Goth
The Estate of James Campbell

Dear Ms. Goth:

Approval of Water Use Permit (WUP No. 465) for Well No. 4159-01
KOOLAULOA Ground Water Management Area, OAHU

This letter transmits your water use permit for Kahuku Pump 2 (Well No. 4159-01) for use of 1.174 million gallons per day (mgd) of water on a 12-month moving average basis that was approved by the Commission on Water Resource Management (Commission) on January 14, 1998. As part of the Commission's approval, the following special conditions were added and are part of your permit under Standard Permit Condition 20:

**Special Conditions**

1. If the applicant's proposed alternative to lower chlorides is acceptable to the Board of Water Supply, the applicant shall apply for a modification of WUP No. 244 for an increase of 1.174 mgd within 30 days of the issuance of this Water Use Permit.

2. Standard Condition 18 shall not apply.

We will be sending a request to the Board of Water Supply requesting clarification of their non-objection to the permit application and special condition no. 1. We will forward a copy of our request to your office and will inform you when a response has been received.

Enclosed with this letter of approval are the following:

1. Your water use permit

2. Your official monthly water use report form

Please be sure to read the conditions of your approved permit. If you accept these terms, please sign and return one copy of this permit to the Commission and retain a copy for your record.
We draw your attention to two key conditions of your permit that require your response. First, you are required 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. You should make copies of the enclosed report form as needed.

Second, you are required to submit a water shortage plan to the Commission within thirty (30) days of the issuance date of this permit. Your water shortage plan simply identifies what you are willing to do should the Commission declare a water shortage situation in the Koolauloa Ground Water Management Area and can be as short as a one page letter. In a water shortage situation, the Commission may require temporary reductions in pumpage from all sources. The Commission is required, by law, to formulate a plan to implement such area-wide reductions, which should accommodate, include, and be consistent with your plans. Therefore, your help, by submitting your water shortage plan, is greatly needed in formulating the Commission's overall Water Shortage Plan.

If you have any questions, please call Mr. Ryan Imata of the Commission staff at [redacted].

Aloha,

[Signature]

for MICHAEL D. WILSON
Chairperson

Attachments
GROUND WATER USE PERMIT
WUP NO. 465

PERMITTEE

Applicant/Water User
Address The Estate of James Campbell

Landowner of Source
Address The Estate of James Campbell

PERMITTED SOURCE INFORMATION

Island Oahu
Water Management Area Koolauloa
Aquifer Sector Windward
Aquifer System Koolauloa
System Sustainable Yield 35 mgd
Well Name Kahuku Pump 2
State Well No. 4159-01

PERMITTED USE INFORMATION

Reasonable beneficial use Agricultural (based on 505 acres of diversified crops)
Withdrawal (12 month moving ave.) 1.174 mgd
Location of water use
TMK # 5-7-01; 21
Address Kawela
State land use classification
County zoning classification AG-1

Pursuant to Hawaii’s State Constitution, Article XI, Section 7, Hawaii Revised Statutes, Chapter 174C; Hawaii Administrative Rules, Chapters 13-167 through 13-171; and Hawaii decisional law and custom, the applicant is hereby authorized to use ground water from the sources and in the amount and from and upon the locations described above; subject however, to the requirements of law including but not limited to the following conditions:
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 January 14, 1998 meeting are incorporated into this permit by reference.

8. Any modification of the permit terms, conditions, or uses may only be made with the express written consent of the Commission.

9. This permit may be modified by the Commission and the amount of water initially granted to the permittee may be reduced if the Commission determines it is necessary to:
   a. Protect the water sources (quantity or quality);
   b. Meet other legal obligations including other correlative rights;
   c. Insure adequate conservation measures;
   d. Require efficiency of water uses;
   e. Reserve water for future uses, provided that all legal existing uses of water as of June, 1987 shall be protected;
   f. Meet legal obligations to the Department of Hawaiian Home Lands, if applicable; or
   g. Carry out such other necessary and proper exercise of the State's and the Commission's police powers under law as may be required.

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

10. 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.

11. 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).

12. This permit shall be subject to the Commission's periodic review of the Koolauloa 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 Koolauloa Aquifer System, or relevant modified aquifer(s), is reduced.
13. A permit may be transferred, in whole or in part, from the permittee to another, if:
   a. The conditions of use of the permit, including, but not limited to, place, quantity, and purpose of the use, remain the same; and
   b. The Commission is informed of the transfer within ninety days.

Failure to inform the department of the transfer invalidates the transfer and constitutes a ground for revocation of the permit. A transfer which involves a change in any condition of the permit, including a change in use covered in HRS § 174C-57, is also invalid and constitutes a ground for revocation.

14. The use(s) authorized by law and by this permit do not constitute ownership rights.

15. The permittee shall request modification of the permit as necessary to comply with all applicable laws, rules, and ordinances which will affect the permittee’s water use.

16. The permittee understands that under HRS § 174C-58(4), that partial or total nonuse, for reasons other than conservation, of the water allowed by this permit for a period of four (4) continuous years or more may result in a permanent revocation as to the amount of water not in use. The Commission and the permittee may enter into a written agreement that, for reasons satisfactory to the Commission, any period of nonuse may not apply towards the four-year period. Any period of nonuse which is caused by a declaration of water shortage pursuant to section HRS § 174C-62 shall not apply towards the four-year period of forfeiture.

17. 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 Koolauloa Ground Water Management Area.

18. The water use permit granted shall be an interim water use permit, pursuant to HAR § 13-167-3(6). The final determination of the water use quantity shall be made within five years of the filing of the application.

19. 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.

20. Special conditions in the attached cover transmittal letter are incorporated herein by reference.

21. 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.

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed.

Applicant's Signature: ___________________________ Date: ___________________________
Printed Name: _______________________________ Firm or Title: _______________________________

Please sign both copies of this permit, return one to the Commission, and retain the other for your records.

Attachment
cc: City and County of Honolulu Board of Water Supply
MOTION: (COX/RICHARDS)
To approve staff's recommendation.
UNANIMOUSLY APPROVED.

9. THE ESTATE OF JAMES CAMPBELL, APPLICATION TO MODIFY AND REVOKE WATER USE PERMITS, WUP No. 243, Kahuku Pump 2 Well (Well No. 4159-01), TMK 5-6-3: 043, WUP No. 440, Opana Well (Well No. 4100-02), TMK 5-7-1: 021, Future Irrigation Use of an additional 0.360 mgd (for a total of 1.174 mgd), Koolauloa Ground Water Management Area, Oahu

PRESENTATION OF SUBMITAL: Mr. Ryan Imata

STAFF RECOMMENDATION:

Staff requested to amend the recommendation as follows:

1) Approve the issuance of a Water Use Permit (WUP No. 465) for the Estate of James Campbell for the reasonable and beneficial use of 1,174,000 gallons per day of brackish/potable water for 505 Acres of diversified crops from the Kahuku Pump 2 Well (Well No. 4159-01) subject to the following special condition:

   a) If the applicant's proposed alternative to lower chlorides is acceptable to the BWS, the applicant shall apply for a modification of WUP No. 244 for an increase of 1.174 mgd within 30 days of the issuance of this Water Use Permit.

2) Revoke the existing Water Use Permit No. 243 for the Estate of James Campbell for the Kahuku Pump 2 Well (Well No. 4159-01); and

3) Revoke the existing Water Use Permit No. 440 for the Estate of James Campbell for the Opana Well (Well No. 4100-02).

TESTIMONIES:

Mr. George Kuo, of the Board of Water Supply, stated that they have no objections to the staff recommendations.

MOTION: (COX/NOBRIGA)
To approve staff's recommendation as amended.
UNANIMOUSLY APPROVED AS AMENDED.

10. Other Business

None
c. Require adherence to the Conservation Conditions (Exhibit 7).

d. 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, 1901-03.

TESTIMONIES: (None)

MOTION: (COX/NOBRIGA)
To approve staff's recommendation.
UNANIMOUSLY APPROVED.

7. Castle & Cooke Homes Hawaii, Inc., APPLICATION FOR WELL PERMIT, Mililani Mauka C (Well No. 2858-03), Pump Installation: 1750 GPM for Municipal Use, TMK 9-5-03:Por 1 & 11, Mililani, Oahu

PRESENTATION OF SUBMITTAL: Ms. Lenore Nakama

STAFF RECOMMENDATION:

The staff recommends that the Commission approve the issuance a pump installation permit for Mililani Mauka C Well (Well No. 2858-03), subject to the Standard Pump Installation Conditions in Exhibit 3.

TESTIMONIES: (None)

MOTION: (COX/GIRALD)
To approve staff's recommendation.
UNANIMOUSLY APPROVED.

8. Hawaiian Marine Enterprises, APPLICATIONS FOR WATER USE AND PUMP INSTALLATION PERMITS, HME-1 Well (Well No. 4157-12), TMK 5-6-2:009(c), Future Aquaculture Use for 0.286 mgd, Koolauloa Ground Water Management Area, Oahu

PRESENTATION OF SUBMITTAL: Mr. Ryan Imata

STAFF RECOMMENDATION:

Staff recommends that the Commission defer action on the water use and pump installation permit applications for Hawaiian Marine Enterprises for the reasonable and beneficial use of 286,000 gallons per day of brackish/potable water for Aquaculture (11 acres of tropical fish) from the HME-1 Well (Well No. 4157-12), pending results from the pump tests performed under the well construction permit and NPDES approval from DOH and/or City and County Department of Public Works.

TESTIMONIES: (None)
THE ESTATE OF JAMES CAMPBELL
APPLICATION TO MODIFY AND REVOKE WATER USE PERMITS
WUP No. 243, Kahuuku Pump 2 Well (Well No. 4159-01), TMK 5-6-3: 043
WUP No. 440, Opana Well (Well No. 4100-02), TMK 5-7-1: 021
Future Irrigation Use of an additional 0.360 mgd (for a total of 1.174 mgd)
Koolauloa Ground Water Management Area, Oahu

APPLICANT: The Estate of James Campbell

LANDOWNER: The Estate of James Campbell

LOCATION MAP: See Exhibit 1

BACKGROUND:
On June 18, 1997, a completed water use permit application was received from the Estate of James Campbell by the Commission on Water Resource Management (Commission). While the applicant requested a transfer of the Water Use Permit (WUP) No. 440, the application is being considered in two parts: 1) a modification of WUP No. 243 for Kahuuku Pump 2 (Well No. 4159-01) for an increase of 0.360 mgd; and 2) revocation of WUP No. 440 (0.360 mgd) for Opana Well (Well No. 4100-02) for a net change of 0.000 mgd between the two permits.

WUP No. 243 - Kahuuku Pump 2 (Well No. 4159-01)
On December 8, 1993, the Commission approved WUP No. 243 for the Kahuuku Pump 2 (Well No. 4159-01) for 0.814 mgd based on a 12 month-moving average (MAV). The use was primarily for a portion of TMK 5-7-1: 021. Additional information regarding the source, use, notification, objections, and field investigation(s) is provided in Attachment A. This well draws water from a spring fed ditch (refer to Exhibit 2).
WUP No. 440 - Opana Well (Well No. 4100-02)

On August 14, 1996, WUP No. 440 was issued to the Estate of James Campbell for 0.360 mgd of diversified agricultural use for a portion of TMK 5-7-1: 021. A copy of the water use permit can be found in Attachment A. Campbell Estate is requesting the revocation of this permit due to the low yield from this well.

At the October 22, 1997 Commission meeting, the Commission unanimously approved staff’s recommendation to defer action on this application pending coordination between Campbell Estate (CE), the Board of Water Supply (BWS) and Commission staff (staff) on water quality impacts from the changes in irrigated areas and sources.

ANALYSIS/ISSUES:

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

(1) Water availability

Through the Hawaii Water Plan, the Commission has adopted 35 mgd as the sustainable yield for the Koolauloa Aquifer System. Individual existing water use permits in this aquifer system are shown in Exhibit 2. A summary of the current ground water conditions in the aquifer is provided in Table 1:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Koolauloa AQUIFER SYSTEM (mgd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Yield</td>
<td>35</td>
</tr>
<tr>
<td>Less: Other Existing Water Use Permits (shown in Exhibit 2)</td>
<td>-16.059</td>
</tr>
<tr>
<td>Subtotal (Current Available Allocation)</td>
<td>18.941</td>
</tr>
<tr>
<td>Less: Pending Completed Applications (shown in Exhibit 3)</td>
<td>-3.890</td>
</tr>
<tr>
<td>Subtotal (Potential Available Allocation/Allocation Deficit)</td>
<td>15.051</td>
</tr>
</tbody>
</table>

Since the net change of this modification is 0.000 mgd, and water is available, water availability is a non-issue for this application.
(2) Reasonable-beneficial

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

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

The application is to combine the allocations from Water Use Permits 440 & 243 into a single allocation at Kahuku Pump 2 for a total of 1.174 mgd. This total allocation will be used to irrigate the existing 250 acres served by Kahuku Pump 2, the 160 acres previously serviced by the Opana Well (Well No. 4100-02), and an additional 95 acres, for a total of 505 acres of diversified agriculture. The use based on requested area coverage results in approximately 2,325 gpd/acre. This is conservative in comparison with the guidelines of the Oahu Water Management Plan, which suggests that average diversified agricultural irrigation needs may be as high as 7,800 gpd/acre. Therefore, the amount requested for diversified agriculture seems reasonable (please refer to handout).

(3) Interference with other existing legal uses

There are thirteen (13) other wells within a mile of the well. Of these, three (3) are not being used. Additionally, there are 3 wells located approximately 1.25 miles of the subject well, but are within the vicinity of the parcel to be irrigated. The BWS did not object but expressed concern that application of non-potable water above the 40 foot contour elevation will adversely affect the quality of water drawn from these wells. The BWS estimates that the 40-foot contour is the elevation of the interface between the caprock and the basal aquifer (please refer to handout). The Board of Water Supply does not currently own any of these wells, but has invested money in the well development. Additionally, the BWS has expressed interest in developing these wells for potable use, although no firm plans have been presented. Pump tests done on these wells in 1969 have resulted in chlorides of approximately 30 ppm with little increase during the test.

Campbell has since proposed that supplemental flow be introduced to the ditch which Pump 2 draws from in an attempt to generate water with lower chlorides at the intake (refer to Exhibit 2). The supplemental flow will be provided by well 4159-02, which can feed into the ditch via an outflow pipe and trench. This source has a current allocation of 0.001 mgd which services Punamano Army. The proposed supplement would be to increase the allocation from this source to approximately 1.000 mgd, since this is the quantity used in the test to produce a mixed water chloride of 128 mg/l. This increase would require an amendment to the existing Water Use Permit and increased draw from the aquifer. A summary of the chlorides is shown on Exhibit 2. This proposal was sent to BWS for review. The Board of Water Supply has not yet submitted a written response to this proposal.

The EPA's guideline for chloride potability is 250 mg/l, while Board of Water Supply's standard is 160 mg/l. Since the water applied in the vicinity of the wells is less than 160 mg/l, application of irrigation water would probably not adversely affect the future use of these wells.
The immediate issue with this criteria is whether existing legal uses are impacted rather than potential "future" uses. Also, with the exception of the new additional 95 acres, irrigation over the area in question has been a long established land use.

(4) Public interest

No objections have been raised through the public review process of this application. The reasonable-beneficial use of water for agriculture, where no adverse impacts to other existing uses will result, is deemed to be in the public interest.

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

These proposed uses are consistent with the state and county general plans and land use designations.

(6) County land use plans and policies

These proposed uses are consistent with county land use plans and policies.

(7) Interference with Hawaiian home lands rights

All permits are subject to the prior rights of Hawaiian home lands. The Department of Hawaiian Home Lands (DHHL) and the Office of Hawaiian Affairs (OHA) have reviewed this application and have no objections.

RECOMMENDATION:

That the Commission:

1) Approve the issuance of a Water Use Permit (WUP No. 465) for the Estate of James Campbell for the reasonable and beneficial use of 1,174,000 gallons per day of brackish/potable water for 505 Acres of diversified crops from the Kahuku Pump 2 Well (Well No. 4159-01) subject to the following special condition:

   a) If the applicant's proposed alternative to lower chlorides is acceptable to the BWS, the applicant shall apply for a modification of WUP No. 244 for an increase of 1,000 mgd within 30 days of the issuance of this Water Use Permit.

2) Revoke the existing Water Use Permit No. 243 for the Estate of James Campbell for the Kahuku Pump 2 Well (Well No. 4159-01); and
3) Revoke the existing Water Use Permit No. 440 for the Estate of James Campbell for the Opana Well (Well No. 4100-02).

Respectfully submitted,

[Signature]

RAE M. LOUI
Deputy Director

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

Exhibit(s):
1 (Location Map)
2 (Intake Diagram and Chloride Summary)
3 (Existing Water Use Permits and 12-Month Moving Average Withdrawal)
4 (Pending Water Use Permit Applications)
WATER USE PERMIT DETAILED INFORMATION

Source Information

AQUIFER:
Koolauloa System, Windward Sector, Oahu
Sustainable Yield: 35 mgd
Existing Water Use Permits: 16.059 mgd
Available Allocation: 18.941 mgd
Total of other pending allocations: 3.890 mgd

WELL:
Kahuku Pump 2 (Well No. 4159-01)
Location: Kahuku, Oahu, Hawaii, TMK:5-6-03: 43
Pump Capacity: 645 gpm

WELL:
Opana Well (Well No. 4100-02)
Location: Kahuku, Oahu, Hawaii, TMK:5-6-03: 43
Year Drilled: 1939
Pump Capacity: 250 gpm

Use Information

Quantity Requested: 1,174,000 gallons per day
Proposed Type of Water Use: 505 Acres Total Diversified Crops
Place of Water Use: T.M.K. 5-7-01: 21

Reported Water Usage: 0.584 mgd
Koolauloa Aquifer System
Current 12-Month Moving Average Withdrawal (See Exhibit 2): 11.584 mgd

Nearby Surrounding Wells and Other Registered Ground Water Use

There are 13 other wells within a mile of the well (see Exhibit 1). Ten (10) of these wells are currently in use. Information from the registration program indicates there are possibly 84 existing wells in the Koolauloa Aquifer System. Most of these have now been field verified and brought under the water use permit system.

ATTACHMENT A
Public Notice

In accordance with HAR §13-171-17, a public notice was published in the Star-Bulletin on August 8, 1997 and August 12, 1997 and copies of the notice were sent to the Mayor’s office and the Board of Water Supply. Additional notice copies were sent to the County Council and Department of Water Supply. Copies of the completed application were sent to the Department of Health, Department of Hawaiian Home Lands, Office of Hawaiian Affairs, Aquatic Resources & Historic Preservation Divisions of the Department of Land and Natural Resources, and other interested parties for comments. Written comments and objections to the proposed permit were to be submitted to the Commission by August 27, 1997.

Objections

The public notice specifies that an objector meet the following requirements: (1) state property or other interest in the matter; (2) set forth questions of procedure, fact, law, or policy, to which objections are taken; (3) state all grounds for objections to the proposed permits, (4) provide a copy of the objection letter(s) to the applicant, and (5) submit objections meeting the previous requirements to the Commission by August 27, 1997.

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

Briefs in Support

Responses to objections, or briefs in support, regarding the application are required to be filed with the Commission ten (10) days after an objection is filed and, presumably, copies are served to the applicant. No briefs in support were filed with the Commission.

Field Investigation

No field investigation was done because this is a new application.
STANDARD WATER USE PERMIT CONDITIONS

1. The water described in this water use permit may only be taken from the location described and used for the reasonable beneficial use described at the location described above. Reasonable beneficial uses means "the use of water in such a quantity as is necessary for economic and efficient utilization which is both reasonable and consistent with State and County land use plans and the public interest." (HRS § 174C-3)

2. The right to use ground water is a shared use right.

3. The water use must at all times meet the requirements set forth in HRS § 174C-49(a), which means that it:
   a. Can be accommodated with the available water source;
   b. Is a reasonable-beneficial use as defined in HRS § 174C-3;
   c. Will not interfere with any existing legal use of water;
   d. Is consistent with the public interest;
   e. Is consistent with State and County general plans and land use designations;
   f. Is consistent with County land use plans and policies; and
   g. Will not interfere with the rights of the Department of Hawaiian Home Lands as provided in section 221 of the Hawaiian Homes Commission Act and HRS § 174C-101(a).

4. The ground water use here must not interfere with surface or other ground water rights or reservations.

5. The ground water use here must not interfere with interim or permanent instream flow standards. If it does, then:
   a. A separate water use permit for surface water must be obtained in the case an area is also designated as a surface water management area;
   b. The interim or permanent instream flow standard, as applicable, must be amended.

6. The water use authorized here is subject to the requirements of the Hawaiian Homes Commission Act, as amended, if applicable.

7. The water use permit application and submittal, as amended, approved by the Commission at its January 14, 1998 meeting are incorporated into this permit by reference.

ATTACHMENT B
8. Any modification of the permit terms, conditions, or uses may only be made with the express written consent of the Commission.

9. This permit may be modified by the Commission and the amount of water initially granted to the permittee may be reduced if the Commission determines it is necessary to:

   a. protect the water sources (quantity or quality);
   b. meet other legal obligations including other correlative rights;
   c. insure adequate conservation measures;
   d. require efficiency of water uses;
   e. reserve water for future uses, provided that all legal existing uses of water as of June, 1987 shall be protected;
   f. meet legal obligations to the Department of Hawaiian Home Lands, if applicable; or
   g. carry out such other necessary and proper exercise of the State’s and the Commission’s police powers under law as may be required.

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

10. 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.

11. 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).

12. This permit shall be subject to the Commission’s periodic review of the Koolauloa 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 Koolauloa Aquifer System, or relevant modified aquifer(s), is reduced.

13. A permit may be transferred, in whole or in part, from the permittee to another, if:

   a. The conditions of use of the permit, including, but not limited to, place, quantity, and purpose of the use, remain the same; and
   b. The Commission is informed of the transfer within ninety days.

ATTACHMENT B
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.

14. The use(s) authorized by law and by this permit do not constitute ownership rights.

15. The permittee shall request modification of the permit as necessary to comply with all applicable laws, rules, and ordinances which will affect the permittee's water use.

16. The permittee understands that under HRS § 174C-58(4), that partial or total nonuse, for reasons other than conservation, of the water allowed by this permit for a period of four (4) continuous years or more may result in a permanent revocation as to the amount of water not in use. The Commission and the permittee may enter into a written agreement that, for reasons satisfactory to the Commission, any period of nonuse may not apply towards the four-year period. Any period of nonuse which is caused by a declaration of water shortage pursuant to section HRS § 174C-62 shall not apply towards the four-year period of forfeiture.

17. 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 Koolauloa Ground Water Management Area.

18. The water use permit granted shall be an interim water use permit, pursuant to HAR § 13-167-3(6). The final determination of the water use quantity shall be made within five years.

19. 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.

20. 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.
Exhibit 2
Chlorides at various points taken on 12/16/97
<table>
<thead>
<tr>
<th>No.</th>
<th>Approved</th>
<th>Applicant</th>
<th>Well No.</th>
<th>Well Name</th>
<th>WUP (mgd)</th>
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44 Permits Totalling 17.233 mgd
Available SY 11.584 mgd

(f:\work\database\reports\wup-wma.rpt) EXHIBIT 3
CAMPBELL ESTATE PUMPAGE
PUMP 2 (Well No. 4159-01)

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AGENDA 3

FOR THE MEETING OF THE
COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: January 14, 1998
TIME: 2:00 p.m.
PLACE: DABS Conference Rooms B & C
3rd Floor, Kalanimoku Building

1. Minutes of the November 19, 1997 meeting.

2. Old Business/Announcements

3. Ocean Seafoods, APPLICATION FOR WATER USE PERMIT
   APPLICATION FOR PUMP INSTALLATION PERMIT, Ocean Seafoods
   No. 1 Well (Well No. 1852-10), TMK 1-5-41:328, Future
   Industrial Use for 0.001 mgd (Salt Water), Kalihi Ground
   Water Management Area, Oahu

4. Pearl Country Club, APPLICATION FOR WATER USE PERMIT, Pearl
   Country Club Well (Well No. 2356-54), TMK 9-8-11:34,
   Modification of Water Use Permit for Future Golf Course
   Irrigation Use for 0.422 mgd, Waimalu Ground Water
   Management Area, Oahu

5. Kamehameha Schools Bernice Pauahi Bishop Estate, Honolulu
   Board of Water Supply, APPLICATION FOR A WATER USE PERMIT,
   APPLICATION FOR A PUMP INSTALLATION PERMIT, Waialae Nui
   Ridge Well (Well No. 1746-04), TMK 3-5-62:44, Future
   Municipal Use for 1.154 mgd

6. Hawaii Prince Golf Club, Hawaii Prince Hotel Waikiki
Agenda January 14, 1998
Commission on Water Resource Management
Corporation, APPLICATION FOR WATER USE PERMIT, EP 22 & Wells 1 to 5 (Well Nos. 1900-02, 17 to 20, 1901-03), TMK 9-1-10:6, Modification of Water Use Permit for Future Golf Course Irrigation Use for 0.301 mgd, Puuloa Ground Water Management Area, Oahu

7. Castle & Cooke Homes Hawaii, Inc., APPLICATION FOR WELL PERMIT, Mililani Mauka C (Well No. 2858-03), Pump Installation: 1750 GPM for Municipal Use, TMK 9-5-03: Por 1 & 11, Mililani, Oahu

8. Hawaiian Marine Enterprises, APPLICATIONS FOR WATER USE AND PUMP INSTALLATION PERMITS, HME-1 Well (Well No. 4157-12), TMK 5-6-2: 009(c), Future Aquaculture Use for 0.286 mgd, Koolauloa Ground Water Management Area, Oahu
Agenda January 14, 1998
Commission on Water Resource Management

THE ESTATE OF JAMES CAMPBELL, APPLICATION TO MODIFY AND
REVOKE WATER USE PERMITS, WUP No. 243, Kahuku Pump 2 Well
(Well No. 4159-01), TMK 5-6-3: 043, WUP No. 440, Opana Well
(Well No. 4100-02), TMK 5-7-1: 021, Future Irrigation Use
of an additional 0.360 mgd (for a total of 1.174 mgd),
Koolauloa Ground Water Management Area, Oahu

10. Other Business

11. The Commission on Water Resource Management will adjourn
into executive session to approve the minutes of May 13,
1997, May 14, 1997, October 22, 1997 (2), and October 23,
1997.

Materials related to items on this agenda are available for review at our office at 1151 Punchbowl
Street, Room 227, and also will be available at the meeting.

Any person may testify or present information on any meeting agenda item, unless the item involves a
proceeding in an existing contested case. In addition, if you have a legal interest that may be
adversely affected by the proposed action, you may have a right to an administrative contested case
hearing. You must make the request for such a hearing either orally or in writing at the public hearing
or meeting for which this notice is given. Hawaii Administrative Rules (H.A.R.) Section 13-167-52(a).

If you request a contested case hearing, you will have the opportunity to present to the Commission
oral or written evidence or testimony or both to establish your standing. You may present your testimony,
or evidence on standing at the meeting or public hearing described above or, alternatively, at a hearing
set by the Commission at a later date.

If you request a contested case hearing either orally or in writing, you must also complete and file
(or mail and postmark) a written petition for a contested case with the Commission within ten days after
the date of the public hearing or meeting noticed here. Petition forms are available from the

If you do not make such a request or fail to file a timely written petition with the Commission, the
consequence is that you will be precluded from later obtaining a contested case hearing and seeking

Disabled individuals planning to attend the public hearing or meeting are asked to contact the
Commission at the above address or phone (Kauai) [numbers redacted], (Hawaii) 974-4000 ext. 70214,
(Molokai or Lanai) 1-800-GOV-INHI ext. 70214 or [numbers redacted] to indicate if
they have special needs which require accommodation.
Mr. Michael D. Wilson  
Chairperson  
Commission on Water Resource Management  
Department of Land and Natural Resources  

Attention: Mr. Ryan Imata  

Dear Chairman Wilson:  

Subject: The Estate of James Campbell, Application to modify and revoke water use permits, Water Use Permit No. 243, Kahuku Pump 2 Well (Well No. 4159-01), TMK 5-6-3:043, Water Use Permit No. 440, Opana Well (Well No. 4100-02), TMK 5-7-1:021, Future Irrigation Use of an Additional 0.360 mgd (for a total of 1.174 mgd) Koolauloa Ground Water Management Area, Oahu.

Thank you for allowing the Estate to respond to the Board of Water Supply’s (BWS) comments, which we have attached as Exhibit A, regarding Campbell Estate’s application for a Water Use Permit to increase existing use of Pump 2 water from 0.814 million gallons a day (mgd) to 1.174 mgd. This represents a 0.36 mgd increase at this location for irrigation in the Waimea section of the Estate’s agricultural land in Kahuku.

It is important to clarify several of their points as apparently they do not have access to historical data that is helpful in understanding the water use in this area. In addition, we would like to correct comments attributed to us at the October 29 meeting which we did not make.

Following are our responses:

1. **BWS Comment:** "Because BWS paid for first of the Opana Wells, we have vested interest in protecting the source. Furthermore, we are moving to finish the station and to accept the station from Kuilima Corp or to reimburse them for their investment. The source will add to our capabilities to deliver water to Kahuku. Any damage to these wells from application of brackish water will be to BWS rather than to Kuilima Corporation. For this reason, we now have the responsibility to protect a source owned by us."

   **Estate Response:** The Estate submits that its use of Kahuku Pump 2 water in the Waimea section up to the 100 foot contour is an existing correlative use and that it should be allowed to continue. Pump 2 is presently providing irrigation water up to the 100 foot contour in the Waimea section in
accordance with its Water Use Permit.

The BWS drilled a well at Opana in 1969 that is in the Koolauloa Designated Water Management Area. Based on our research, the well does not have a Water Use Permit and has never been placed in service. Therefore, there is not a threat to an existing use. If we understand the Water Code correctly, even potential future uses must recognize and defer to those existing uses in the area.

2. **BWS Comments:** "At the time of testing of our Opana wells, extensive plantation irrigation had ceased for over ten years. During this time, any impact of the use of high chloride water had long dissipated. Moreover, the diversified farming used the Campbell Opana well at much lower rates of applications and for shorter periods in conformance with short planting to harvest cycles as compared to sugar. Timing is critical in interpretation of chlorides owing to the large span of years involved. For this reason, the comments of previous continued heavy application of irrigation water at Opana by Russell and Hiu are questionable."

**Estate Response:** BWS's recollection that extensive plantation irrigation had ceased for over ten years at the time their well at Opana was tested in 1969 is incorrect.

Messrs. Tom Nakagawa and Dan Kahawai, the respective field superintendent and irrigation supervisor for Kahuku Sugar Co, has verified that sugar cane was grown continuously in the Opana area until the plantation closed in 1971, except for a portion of the makai area withdrawn for Kuilima Development in 1969. (Exhibit B: Map and signed statements by Messrs. Nakayama and Kahawai).

3. **BWS Comments:** "The information and data presented by Campbell Estate at the October 29 meeting at CWRM seemingly supports their view of no impact and that they should be allowed to use brackish water from Pump 2 above the 40-foot contour in the vicinity of our wells. Data in our files indicate otherwise, however, indicate use of this water would have adverse impacts on our wells at Opana and Waialee. Over a 15 year period from 1940 to 1955 during full scale operation of the plantation, the attached data indicate prima facie evidence that return irrigation water from brackish sources did indeed impact well 338-1 (4100-02)."

**Estate Response:** Well 338-1(4100-02) referenced in this comment belongs to the Estate. This well is located 37 feet above sea level within the lands
being irrigated with water from Pump 2. In comparison, the BWS well at Opana is at the 126 foot elevation and is located on lands that were never irrigated with water from Pump 2. We are not clear how one can conclude that well activity at a lower elevation translates into a similar impact at a higher elevation. In addition, the data BWS provided reflects only four out of 72 samples that exceeded 200 ppm of chloride. Most of the samples were at or below 150 ppm chloride. Is the implication that in a 15 year period of time, four samples represent degradation of a facility? (Exhibit C)

4. **BWS Comments:** “The other well probably used to irrigate this area in the past is the next closest well 338 (4100-01) (Map 1) which formerly yielded water up to 1500 ppm chlorides in the 1981 until the well was backfilled 130 feet. This well was a probable source of water for the former ditches and reservoir that impacted well 338-1 but not the BWS wells. The request, therefore, is for a new area to be irrigated with source that formerly supplied fields makai of the highway.”

**Estate Response:** This is incorrect. Well 338 (4100-01) was a domestic water source used by Kahuku Sugar Co., Ltd. to supply water to its Camp 3, located along the OR & L railroad tracks. The pump capacity at Well No. 4100-01 was only 180 gpm, and was not used for irrigation; the only non-domestic use of this water was to supply water to steam locomotives used to transport cane to the mill. (Exhibit B: Map and signed statements by Messrs. Nakayama and Kahawaii).

5. **BWS Comments:** “We question the validity of comments made by Jim Russell and George Hiu on the long historical use of water from Pump 2 extending to the Crawford care home.”

**Estate Response:** Messrs. Hiu and Russell never claimed the use of Pump 2 water extended to the Crawford Convalescent Home. We provided CWRM staff with a map at the October 29, 1997 meeting, showing the extent of Pump 2 irrigation. That map clearly shows that Pump 2 irrigation did not extend to Crawford Convalescent Home.

6. **BWS Comments:** “Furthermore, our recollections are that in the past 20 years or so, sugar cane was not grown very far west of the Opana wells, contrary to Russell’s statement of extensive continued irrigation throughout. Had this been the practice the shallow wells in the Waialee area would show substantially increased chlorides on the order of two to three times the 50 ppm of the wells (See test pumping results and graphs of pumpage and chloride in our wells).”
Estate Response: Messrs. Hiu and Russell never claimed continued heavy irrigation in the Waimea section after the plantation period. They knew that Kahuku Sugar Co. went out of business in 1971 and heavy sugar cane irrigation gave way after that to lighter diversified agriculture irrigation. What Messrs. Hiu and Russell claimed was a continued use of Pump 2 for irrigation beyond 1971. A written chronology of diversified Ag operations in the Waimea section from 1972 to the present time by Mr. Mitchell Smith, former Special Projects Manager for Amorient Farms, Inc. attests to the fact that there was continued irrigation in the Waimea section after closure of Kahuku Sugar Co. using Pump 2 water. (Exhibit D: Map and signed statement by Mr. Smith).

7. BWS Comments: “Any farming above the 40-foot contour within a thousand feet of our wells should be required to irrigate with water quality equal to or better than our wells.”

Estate Response: Once again, we point out that the Kahuku Pump 2 is an existing use which has existed for nearly 100 years. Therefore, it should be allowed to continue.

In addition, we are unclear from this statement what the BWS is requesting regarding water quality. BWS reports that the chlorides in the Opana well are 31 ppm chloride. Are they proposing that any water used within 1,000 feet of their wells be 31 ppm chloride? If this is the case, then are all wells on Oahu required to meet the standard of water quality as it existed when the wells’ first samples were taken? Is this a practical standard?

If you have any questions regarding our comments, please call George Hiu or Jim Russell at...

Very truly yours,

[Signature]
Danna B. Goth
Director, Hawaii Development

Attachment

cc: Ray Sato, Board of Water Supply

jlr:01034600\K10262
EXHIBIT "A"

Board of Water Supply Concerns from the Impact of Irrigation Water from Kahuku Plantation Pump 2 Well No. 4159-01,02 on Opana and Waialee Wells

The information and data presented by Campbell Estate at the October 29 meeting at CWMR seemingly supports their view of no impact and that they should be allowed to use brackish water from Pump above the 40-foot contour in the vicinity of our wells. Data in our files indicate otherwise, however, indicate use of this water would have adverse impacts on our wells at Opana and Waialee. Over a 15 year period from 1940 to 1955 during full scale operation of the plantation, the attached data indicate prima facie evidence that return irrigation water from brackish sources did indeed impact well 338-1 (4100-02). Water samples were collected monthly and titrated by Harold Palmer. The high variability and range of change indicate influence by slugs of water such that are consistent with a pattern twice weekly furrow irrigation with the breakpoints blurred. Chlorides ranged from a low of 111 ppm to 394 ppm. In 1954, he analyzed 15 samples taken on a daily basis. Over this 15-day interval, chlorides ranged from a low 113 to a maximum of 177 ppm, with a maximum daily change of 32 ppm. The older topographic maps show the presence of irrigation ditches at 40 feet and 80 feet elevations and an open reservoir a short distance to the east. The ditches barely extended to the Waialee wells.

Other contributing factors to water quality include thickness of the alluvium, depth of casing, and the geometry of the dikes in the area. In the case of well 338-1, the cased portion of 40 feet indicate thinness of alluvium and development of the upper portion of the lens. The upper portion of the lens reflects irrigation return water which in this case is thin owing to short distance between input and output. Wells with deeper casings would be less influenced unless heavily pumped or that have intervening thick dense lavas.

This area is the northernmost portion of the Koolau shield. A number of dikes crop out in the area. One dike occurs in the road cut a few hundred feet east of the Opana well field. Others occur just west of the gulch near the well field. Water levels of 5 feet or less define basal water, though still influenced by dikes, west of the care home. Water levels rise to maximum of 20 feet in a narrow zone around the Waialee wells. At the Opana wells, the head is 17 feet. Further east, the head falls to 10 to 12 feet.

As we understand the request for permitted use for Pump 2, the water is to be used over an area that was and is presently served by well 338-1 (4100-02). We do not object to irrigation of the fields around our wells; however, it must be with water of equal or better quality than occurs in our wells. Our concern is for the use of brackish water over the areas around our well field that would adversely affect our wells at Opana and Waialee.
We question the validity of comments made by Jim Russell and George Hiu on the long historical use of water from Pump 2 extending to the Crawford care home. The good water quality shown in deep and shallow wells with ends of casing from tens of feet above sea level to a few tens of feet below do not support the use of poor quality irrigation near the Waialee wells and the rest home (Table 1). Otherwise, return irrigation water would show up in these wells that tap the shallowest zone and deeper zones. The wells in question include our Opana wells, Waialee wells, and other state and private wells to the west.

The other well probably used to irrigate this area in the past is the next closest well 338 (4100-01) (Map 1) which formerly yielded water up to 1500 ppm chlorides in 1981 until the well was backfilled 130 feet. This well was a probable source of water for the former ditches and reservoir that impacted well 338-1 but not the BWS wells. The request, therefore, is for a new area to be irrigated with source that formerly supplied fields makai of the highway.

Furthermore, our recollections are that in the past 20 years or so, sugar cane was not grown very far west of the Opana wells, contrary to Russell's statement of extensive continued irrigation throughout. Had this been the practice the shallow wells in the Waialee area would show substantially increased chlorides on the order of two to three times the 50 ppm of the wells (See test pumping results and graphs of pumpage and chloride in our wells).

At the time of testing of our Opana wells, extensive plantation irrigation had ceased for over ten years. During this time, any impact of the use of high chloride water had long dissipated. Moreover, the diversified farming used the Campbell Opana well at much lower rates of applications and for shorter periods in conformance with short planting to harvest cycles as compared to sugar. Timing is critical in interpretation of chlorides owing to the large span of years involved. For this reason, the comments of previous continued heavy application of irrigation water at Opana by Russell and Hiu are questionable.

Because BWS paid for first of the Opana Wells, we have vested interest in protecting the source. Furthermore, we are moving to finish the station and to accept the station from Kuilima Corp or to reimburse them for their investment. The source will add to our capabilities to deliver water to Kahuku. Any damage to these wells from application of brackish water will be to BWS rather than to Kuilima Corporation. For this reason, we now have the responsibility to protect a source owned by us. We stress the point that there is no objection to use of the water from Pump 2 as long as the application is not within 1000 feet of our water sources and below the 40-foot contour. We believe the restriction is a reasonable preventive measure.

In summary, we disagree with the interpretation of the data and the statements of previous use in the projected area. We firmly believe
use of brackish wells around our sources will have adverse effects that will reduce or eliminate the continued use for municipal needs. Any farming above the 40-foot contour within a thousand feet of our wells should be required to irrigate with water quality equal to or better than our wells. We do not view this as a "taking" since we are not preventing them from farming the area and object only to the proposed use of brackish water that affects the continued use of our source for municipal purposes.
To whom it may concern:

1. KP-2 was installed during the early days of Kahuku Sugar Company, Ltd. ("KSCo"), most likely in the late 1890's. There is no record of the exact date of installation. It was the only irrigation water source for all sugarcane fields on the Waimea section of the plantation. The water source at KP-2 was normally composed of two (2) different natural artesian sources that were collected in a channel leading to the sump of the KP-2 pumping station:

   a. A fresh water spring close to the KP-2 pumping station; and

   b. A saltier source channeled in from the marsh closer to the ocean.

A third artesian source at times was also used, when supplementary water was required; this water was from the KP-2A 12" well casing located close to the KP-2 pumping station (see Item No. 4 below).

2. Most of the crop area was irrigated directly from the KP-2 ditch, but several fields above the ditch were irrigated from booster-pumped water. Booster Pump #4 lifted water from Pump #4 Reservoir to the ditch at the top of the upper fields. Booster Pump #16 lifted water directly from the KP-2 ditch to several fields on top of the bluff (see Exhibit "A").

3. Four (4) small pumps in the general area irrigated by KP-2 water were used mainly for providing domestic water to three (3) plantation labor camps and Kahuku Air Base (see Exhibits "B" and "C").
4. The KP-2A supplementary irrigation water source was controlled by a 12\textquoteleft gate-valve on the side of the 12\textquoteleft well casing, bringing deep well water to the surface. It was opened as needed throughout the year, but was used most heavily during the summer peak-use period, with the valve being kept open 24-hours a day. The water flowed from the 12\textquoteleft casing into the collecting channel through a rock-lined ditch. This system was observed in use from 1931 until the shutdown of KSCo in March 1971; the actual installation of the KP-2A 12\textquoteleft well and ditch was earlier than that, but the exact date is not known.

5. Sugarcane was grown continuously in the area shown in Exhibit "A" from the initial plantings in the late 1890\textquotesingle s and early 1900\textquotesingle s until the plantation closed in 1971, except for the makai area withdrawn for Kuilima development in 1969.

Respectfully submitted by:

\[Signature\]  \hspace{2cm}  \text{Dated: Dec 11, 1997}

Tom Nakayama  
former Field Superintendent of Kahuku Sugar Co., Ltd.  
Employment period: 1931-1971

\[Signature\]  \hspace{2cm}  \text{Dated: Dec 11, 1997}

Dan Kahawaii  
former Irrigation Supervisor of Kahuku Sugar Co., Ltd.  
Employment period: 1936-1969
Exhibit "A"

LEGEND

Kahuku Sugar Co., Ltd.
Crop Area Irrigated from KP-2 Water Source in the Waimea Section - 1964

- KP-2 Source - Direct
- KP-2 Source & Pump 4 Booster Pump
- KP-2 Source & Pump 16 Booster Pump

R. H. Towill Corporation
333 Merchant Street
Honolulu, Hawaii
Civil Engineers, Surveyors, Photogrammetric Engineers

Campbell Estate
Lands Situated At
Kahuku, Koolauloa
Oahu, Hawaii

Scale 1"=1000' Date of Photography 6-12-64 Date 6-9-64
### DOMESTIC WATER SOURCES FOR THE WAIMEA SECTION OF KAHUHKU SUGAR CO., LTD.

<table>
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<tr>
<th>Pump Name</th>
<th>GPM Capacity</th>
<th>State Well No.</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>KP-17C (for Camp 3)</td>
<td>180</td>
<td>338</td>
<td>4100-01 Also used to supply water to steam locomotives for haul cane cars along highway</td>
</tr>
<tr>
<td>KP-19 (for Kawela Bay)</td>
<td>115</td>
<td>338-1</td>
<td>4100-02</td>
</tr>
<tr>
<td>KP-18 (for KAB)</td>
<td>350</td>
<td>339-A</td>
<td>4158-12 Also used to provide low chloride artesian flow into the KP-2 sump for supplemental irrigation, through a 12&quot; gate valve on the 12&quot; well casing.</td>
</tr>
<tr>
<td>KP-17B* (for Camp 2)</td>
<td>200</td>
<td>341-B</td>
<td>4159-02</td>
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</table>

*Now known as KP-2A.
EXHIBIT "C"

EXHIBIT

To: Mr. Morgan, Mr. Warden and Mr. Lume.
From: Harold S. Palmer.
Subject: Chloride Determinations, Campbell Estate Well No. 338-1, Kawela.

While we had a household on a cottage at Kawela, I collected a number of tap samples and titrated them for chloride.

Our cottage was at the end of one of the branch pipe lines of the small water supply system supplied by Well No. 338-1, which is described on page 144 of Stearns's "Supplement to the Geology and Ground Water Resources of the Island of Oahu, Hawaii," Terr. Bur. Hydrography, Bull. 5, 1940.

Stearns reports the salinity on Dec. 12, 1939 at 100 ppm. By titrations are reported on the accompanying sheet.

All samples were collected at our cottage, except the series of daily samples in April and May, 1954, which we collected about noon each day by Mrs. Paul Stearns at their cottage on the same branch pipe line that served our cottage.

At this late date, I think I remember that in the winter of 1949-1950 the water got rather brackish, which stimulated me to make fairly frequent determinations. My intent was to collect a sample about the middle of every other month, but the irregularity of our visits to the cottage made this impossible.

I submit the data in the event that sometime the Board of Water Supply may have to provide water to this area.
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<th>PPL.</th>
<th>Date</th>
<th>PPL.</th>
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<td>1940 Samples</td>
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<td>Mon., Nov. 11</td>
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<td>Sat., Mar. 13</td>
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<td>1941 Samples</td>
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<td>Sun., Feb. 23</td>
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<td>Fri., Apr. 16</td>
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<td>Tues., Nov. 18</td>
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<td>Sun., Apr. 18</td>
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<td>1950 Samples</td>
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<td>Fri., Jan. 29</td>
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<td>Fri., Apr. 27</td>
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<td>Sat., Mar. 13</td>
<td>137</td>
<td>Start of a run of 15 daily samples taken about noon each day.</td>
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<td>1951 Samples</td>
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<td>Tues., Jan. 15</td>
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**CHEMICAL LABORATORY REPORT**

**Subject:** Opana Test Well Pump Test

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<th>Cl</th>
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Pumping started at 1030 on 8/18/69; ended at 1525.

**Well data:**
- Bottom of well at elevation -180 ft.
- End of casing " " - 30 ft.
- Diameter of well: 16 in. I.D.

August 21, 1969
GT/dw

Y. F. Lee
Chemist

Copies to: RTK, RWKL (2)
## CHEMICAL LABORATORY REPORT

**Subject:** Opana Test Well Pump Test

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<th>Ppm Nitrate</th>
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*Pumping started at 1300 on 8/20/69; ended at 1300 on 8/25/69.*

**Well data:** Bottom of well at elevation -182 ft.  
End of casing " " -32 ft.  
Diameter of well: 12 in. I.D.

September 23, 1969  
GT/dw

Copies to: RTK, RWKL

E. W. **[Signature]**  
for Y. F. Lee  
Chemist
OPANA TEST WELL

Diameter: 16" ID
Depth: 307'
Casing: 158.7'
Airline: 145'
Head: 10.0' (approx.)

August 18, 1969

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Change orifice plate to 7\(\frac{1}{2}\)". Change rate

Sample No. 5
Change rate

Sample No. 6
Change rate
Opana Test Well (cont.)

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December 10, 1997

To Whom it may concern:

The history of the KP-2 pump use and changes to the best of my knowledge, after Kahuku Sugar Co. closed down, is as follows:

1975?-1977- Lowe Farms Inc. initially used the existing KP-2 pump to grow silage corn, (on the Green area of Map #1).

1977- Pump KP-2 was converted from the 1 large existing Kahuku Sugar Co. pump to 6 Berkeley High pressure pumps rated at 600 gpm each. These were used to run center pivot systems and water winches.

1982- Art Lowe sold Lowe Farms Inc. To Amorient Aquafarm Inc. KP-2 was primarily dedicated to corn areas (Yellow on Map #2). KP-2 was also used as a backup to the Aquafarm ponds east of the corn fields (Blue on Map #2) during rare high usage times.

Feb. 28, 1984- The corn operation was shut down by Amorient. The land was unused for about a year.

1985- Amorient started subleasing a large portion of the old corn land to vegetable farmers. Two vertical turbine computer controlled demand pumps rated at 650 gpm each were installed at KP-2 replacing the 6 Berkeley pumps. (This area is represented by Orange on Map #3.)

1992- Amorient shutdown their agricultural operations, and the Estate of James Campbell began leasing directly to the existing farm tenants, and operated the KP-2 water system. Currently, farming is still continuing on the same area and using the same KP-2 water source.

Mitchell E. Smith
Former Special Projects Mgr.
Amorient Aquafarm Inc.
Map No. 1 - Irrigated Crop Area of Lowe Farms, Inc. (1975-1982)
Map No. 2 - Irrigated Crop Area
FACSIMILE COVER SHEET

TO: NAME: LYNN INABA

COMPANY: CWRM

FAX NO: (808) 587-0219

FROM: NAME: GLENN OYAMA

DIVISION: BUSE (B & P & E)

SUBJECT: OPAA, UHIALE Data

REMARKS:

Lyman note our typical in data on the original fax sheet from you.

It's significant that after just 3 days of discharge, the chloride level in well 4157-01 rose from 118 to 142. It will probably reach 188 in a short time if left to flow unrestricted and be equivalent to the chloride level of Punalu'u Sp., which we believe is the source well on this site.

IN CASE OF TRANSMISSION PROBLEMS, PLEASE CONTACT SENDER AT (808) ____________, THANK YOU.
FACSIMILE TRANSMITTAL

To: Chester / Glenn  
Company: Board of Water Supply  
Fax Number: [Redacted]  
Phone Number: [Redacted]  

From: Ryan Imata  
Date: December 30, 1997  
Pages including header: 2  
Subject: Kahuku Pump 2

Notes/Comments:

I've made a time chart that represents your understanding of irrigation in the last 50 years as I've interpreted from your letter to us. Can you make any corrections and fax back to me as soon as possible? Also, can you provide summaries of chlorides for two wells: 1) Opana (State Well 4100-02 / 338-1) from '40 to present (I know you sent some over but please fill in the rest); and 2) Waiaalee II (State Well 4101-08 / 337-6) from '50 to present.

Please provide this information as soon as possible as I need to prepare the submittal for the January 14, 1998 Commission meeting. Your help is appreciated.

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* This appears to be Well 4159-02 as verified by dipmeter
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<th>Crop Irrigation near open</th>
<th>Testing done on open wells</th>
<th>No sugarcane grown west of open wells</th>
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Prior to 1955, samples from 4100-02 showed variations in chlorides between approximately 120 and 160 ppm.

Testing on open well (4100-03) in '56 shows chlorides stable at approx. 30 ppm.

320 See 44

---

BWS ENGINEERING ID: 086987/62.0
Opana Well (4100-02)
Old: 338-1
Drilled: 1939 (W. Mullen)

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Maximum chloride 394 (2/6/1950)
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FACSIMILE COVER SHEET

TO: NAME: KIAN IMATA
COMPANY: CWM
FAX NO: ____________________________

FROM: NAME: CHESTER LAM
DIVISION: __________________________
FAX NO: ____________________________

SUBJECT: PAGE YOU REQUESTED

REMARKS: ____________________________________________________________

__________________________________________________________

IN CASE OF TRANSMISSION PROBLEMS, PLEASE CONTACT SENDER AT (808) ________ THANK YOU.
use of brackish wells around our sources will have adverse effects that will reduce or eliminate the continued use for municipal needs. Any farming above the 40-foot contour within a thousand feet of our wells should be required to irrigate with water quality equal to or better than our wells. We do not view this as a "taking" since we are not preventing them from farming the area and object only to the proposed use of brackish water that affects the continued use of our source for municipal purposes.
Mr. Raymond H. Sato  
Manager and Chief Engineer  
Honolulu Board of Water Supply

Attn: Mr. Chester Lao

Dear Mr. Sato:

Pump Installation Permit Application for Well No. 4159-01

A proposal has been made by Campbell Estate with respect to the subject application. The proposal is to operate Pump 2A (refer to attached exhibit) which Campbell anticipates will mix with the raw water to raise the quality of the water that will feed the system. Commission staff has collected data on-site and has performed analysis to confirm the validity of the proposal. According to our analysis, the proposed water which will feed the system will have chlorides of approximately 128 ppm. This water will subsequently be used to irrigate the area described in the subject application.

The Commission would like to receive your comments on this proposal as soon as possible, as the submittal for this subject is scheduled for the January 14, 1998 Commission meeting.

If you have any questions, please contact Mr. Ryan Imata of the Commission staff at

Sincerely,

RAE M. LOUI  
Deputy Director

RI: ss  
Enclosure  
c:  Jim Russell, The Estate of James Campbell
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

AGENDA
FOR THE MEETING OF THE COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: November 19, 1997
TIME: 10:00 a.m.
PLACE: Tex Drive In Honokaa, Hawaii

1. Minutes of the October 22, 1997 meeting.
2. Old Business/Announcements
3. Milestones for the Restoration of the Diversion of Hakalaoa Stream, Honokaa, Hawaii (TMK 4-8-03:06)
4. Maui Lani Partners, APPLICATION FOR WELL PERMIT, Maui Lani Wells 1 & 2 (Well No. 5229-02 & 03), Well Construction: modification of existing wellheads, Pump Installation: 700 GPM for golf course irrigation use in each well, TMK 3-8-7:133, Kahului, Maui
5. Maui Lani Partners, APPLICATION FOR WELL PERMITS, Reynolds Well 2 (Well No. 5228-07), Pump Installation: 700 GPM for construction and dust control use, TMK 3-8-7:130, Kahului, Maui
6. Deferral - Kamehameha Schools/Bernice Pauahi Bishop Estate, APPLICATION FOR PUMP INSTALLATION PERMIT, Waialae Nui Ridge (Well No. 1746-04), Pump Installation: 1000 GPM for Domestic Use, TMK 3-5-062:044, Waialae, Oahu
7. Declaratory Order on: Delegation of Water Use Permit Modification Approval Meeting Certain Criteria to the Chairperson
8. Declaratory Order On: Delegation of Stream Channel Alteration Permit Approval Meeting Certain Criteria to the Chairperson
10. Other Business

Materials related to items on this agenda are available for review at our office at 1151 Punchbowl Street, Room 227, and also will be available at the meeting.

Any person may testify or present information on any meeting agenda item, unless the item involves a proceeding in an existing contested case. In addition, if you have a legal interest that may be adversely affected by the proposed action, you may have a right to an administrative contested case hearing. You must make the request for such a hearing either orally or in writing at the public hearing or meeting for which this notice is given. Hawaii Administrative Rules (H.A.R.) Section 13-167-32(a).

If you request a contested case hearing, you will have the opportunity to present to the Commission oral or written evidence or testimony or data to establish your standing. You may present your testimony or evidence at the meeting or public hearing described above or, alternatively, at a hearing sat by the Commission at a later date.

If you request a contested case hearing either orally or in writing, you must also complete and file (or mail and postmark) a written petition for a contested case with the Commission within ten days after the date of the public hearing or meeting noticed here. Petition forms are available from the Commission. H.A.R. Section 13-167-32(a).

If you do not make such a request or fail to file a timely written petition with the Commission, the consequence is that you will be precluded from later obtaining a contested case hearing and seeking judicial review of any adverse decision. H.A.R. Chapter 13-167.

Disabled individuals planning to attend the public hearing or meeting are asked to contact the Commission at the above address or phone (Hawaii) 374-3141 ext. 70214; (Maui) 884-2400 ext. 70214; (Kauai) 874-4000 ext. 70214 (Kololi or Lani) 1-800-GOV-INHI ext. 70214 or 587-5214 to indicate if they have special needs which require accommodation.

[Signature]
MINUTES
FOR THE MEETING OF THE
COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: October 22, 1997
TIME: 9:00 a.m.
PLACE: DLNR Board Room
Kalanimoku Building

Chairperson Michael Wilson called the meeting of the Commission on Water Resource Management to order at 9:15 a.m.

The following were in attendance:

MEMBERS: Mr. Michael Wilson
Mr. Richard Cox
Dr. Lawrence Miike
Mr. Robert Girald
Mr. Herbert Richards, Jr.

Excused: David Nobriga

STAFF: Ms. Rae Loui
Mr. Roy Hardy
Ms. Lenore Nakama
Mr. Ryan Imata
Mr. David Higa
Mr. Glenn Bauer
Mr. Ed Sakoda
Mr. Eric Hirano
Ms. Janis Uwaine

COUNSEL: Ms. Pamela Matsukawa

OTHERS:
Tom Nance
Glenn Oyama
Nic Musico
Bill Milks
Patrice Liu
Donna Wong

Howard Hamada
Jim Russell
Barry Hiu
Hide Imura
Rodney Funakoshi
Barry Usagawa

Walter Chuck
Maile Chun
George Dayag
Len Sutton
Derrick Elfalan
George Hiu

All written testimonies submitted at the meeting are filed in the Commission office and are available for review by interested parties. The items were not taken in the order posted on the agenda.

Item 1
December 10, 1997

To Whom it may concern:

The history of the KP-2 pump use and changes to the best of my knowledge, after Kahuku Sugar Co. closed down, is as follows:

1975?-1977- Lowe Farms Inc. initially used the existing KP-2 pump to grow silage corn, (on the Green area of Map #1).

1977- Pump KP-2 was converted from the 1 large existing Kahuku Sugar Co. pump to 6 Berkeley High pressure pumps rated at 600 gpm each. These were used to run center pivot systems and water winches.

1982- Art Lowe sold Lowe Farms Inc. To Amorient Aquafarm Inc.. KP-2 was primarily dedicated to corn areas (Yellow on Map #2). KP-2 was also used as a backup to the Aquafarm ponds east of the corn fields (Blue on Map #2) during rare high usage times.

Feb. 28, 1984- The corn operation was shut down by Amorient. The land was unused for about a year.

1985- Amorient started subleasing a large portion of the old corn land to vegetable farmers. Two vertical turbine computer controlled demand pumps rated at 650 gpm each were installed at KP-2 replacing the 6 Berkeley pumps. (This area is represented by Orange on Map #3.)

1992- Amorient shutdown their agricultural operations, and the Estate of James Campbell began leasing directly to the existing farm tenants, and operated the KP-2 water system. Currently, farming is still continuing on the same area and using the same KP-2 water source.

Mitchell E. Smith
Former Special Projects Mgr.
Amorient Aquafarm Inc.
Map No. 1 - Irrigated Crop Area
of Lowe Farms, Inc. (1975-1982)
Map No. 2 - Irrigated Crop Area of Amorient Aquafarms, Inc. (1982-1984)
thirty (30) days after the permittee receives notice of the tax map key change.

3. Standard Condition 17 is waived.

TESTIMONY BY APPLICANT:

Mr. George Hiu, of The Estate of James Campbell, was available for questions. He concurred with staff's recommendation.

MOTION: (NOBRIGA/COX)
To approve staff's recommendation.
UNANIMOUSLY APPROVED.

5. The Estate of James Campbell, Application to Modify Water use Permits, Kahuku Pump 2 Well (Well No. 4159-01), TMK 5-6-3: 043, WUP No. 243 Opana Well (Well No. 4100-02), TMK 5-7-1: 021, WUP No. 440, Future Irrigation Use of an additional 0.360 mgd (for a total of 1.174 mgd), Koolauloa Ground Water Management Area, Oahu

PRESENTATION OR SUBMITTAL: Mr. Ryan Imata

STAFF RECOMMENDATION:

Staff requested to amend the recommendation as follows:

A. Defer action on WUP No. 243 for the Estate of James Campbell for the reasonable and beneficial use of 1,174,000 gallons per day of brackish water for 505 Acres of diversified crops from the Kahuku Pump 2 Well (Well No. 4159-01), subject to a meeting between the applicant, the Board of Water Supply, and Commission Staff to determine a boundary of irrigation that is amenable to all parties. The deferral shall be until the November Commission meeting.

B. Defer revocation of WUP No. 440 from the Estate of James Campbell pending the modification of WUP No. 243. The deferral shall be until the November Commission meeting.

C. Allow the applicant to continue existing irrigation based on the previously approved Water Use Permits Nos. 243 & 440.

TESTIMONY BY APPLICANT:

Mr. George Hiu, of The Estate of James Campbell, testified that the water was irrigated since 1982 and has not shown any effect to the Board of Water Supply wells. He also suggested that, as an alternative to the study, they work with the Board of Water Supply in sharing the data that they both have.

Mr. Jim Russell, of the Estate of James Campbell, was available to answer questions of the Commissioners. He also stated that
the Kahuku Sugar Company has irrigated the water up until the early 1970's and they have the data that was collected during that time, which is almost a hundred years. He further stated that the water has not been affected.

TESTIMONIES:

Mr. Glenn Oyama, of the Board of Water Supply, concurred with staff's recommendation. He also stated that the Board of Water Supply would be willing to work together with Campbell Estate and the CWRM staff.

MOTION: (NOBRIA/RICHARDS)
To approve staff's recommendation as amended.
UNANIMOUSLY APPROVED AS AMENDED.

The Commission went into recess at 12:35 p.m.

AGENDA 3

The Chairperson called the meeting back to order at 1:09 p.m.


PRESENTATION OF SUBMITTAL: Mr. Roy Hardy

STAFF RECOMMENDATION:

The staff requested to amend the staff recommendation as follows:

A. Approve the petition to amend the interim instream flow standard for (SCAP-HA-219) the operation of a non-commercial hydroelectric power system on Waiau Stream, Puueo, Hilo, Hawaii (TMK: 2-6-28:7), subject to the following conditions:

1. The petitioner acknowledges that the use of streamwaters for its project shall be subject to the rights and interests of others, as may be determined by Hawaii Law including but not limited to the rights established in Section 221 of the Hawaiian Homes Commission Act, and Hawaii Revised Statutes §174C-101.

2. The Commission reserves the right to establish, in the future, permanent instream flow standards that may or may not supersede the interim instream flow standard amended by the Commission for this project.
RECOMMENDATION:

That the Commission:

A. Defer action on WUP No. 243 for the Estate of James Campbell for the reasonable and beneficial use of 1,174,000 gallons per day of brackish water for 505 Acres of diversified crops from the Kahuku Pump 2 Well (Well No. 4159-01), subject to the applicant's submission of a study to determine the exact location of the ground surface contact between the caprock and the basaltic formation to identify acreage where irrigation using brackish water should not be allowed, to protect the quality of the basal aquifer.

B. Defer revocation of WUP No. 440 from the Estate of James Campbell pending the modification of WUP No. 243.

C. Allow the applicant to continue existing irrigation based on the previously approved Water Use Permits Nos. 243 & 440.
APPLICANT: The Estate of James Campbell

LANDOWNER: The Estate of James Campbell

LOCATION MAP: See Exhibit 1

BACKGROUND:

On June 18, 1997, a completed water use permit application was received from the Estate of James Campbell by the Commission on Water Resource Management (Commission). While the applicant requested a transfer of the Water Use Permit (WUP) No. 440, the application is being considered in two parts: 1) a modification of WUP No. 243 for Kahuku Pump 2 (Well No. 4159-01) for an increase of 0.360 mgd; and 2) revocation of WUP No. 440 for Opana Well (Well No. 4100-02).

Kahuku Pump 2 (Well No. 4159-01)

On December 8, 1993, the Commission approved WUP No. 243 for the Kahuku Pump 2 (Well No. 4159-01) for 0.814 mgd based on a 12 month-moving average (MAV). The use was primarily for a portion of TMK 5-7-1: 021. Additional information regarding the source, use, notification, objections, and field investigation(s) is provided in Attachment A.
On August 14, 1996, WUP No. 440 was issued to the Estate of James Campbell for 0.360 mgd of diversified agricultural use for a portion of TMK 5-7-1: 021. A copy of the water use permit can be found in Attachment A. Campbell Estate is requesting the revocation of this permit due to the low yield from this well.

ANALYSIS/ISSUES:

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

(1) Water availability

Through the Hawaii Water Plan, the Commission has adopted 35 mgd as the sustainable yield for the Koolauloa Aquifer System. Individual existing water use permits in this aquifer system are shown in Exhibit 2. A summary of the current ground water conditions in the aquifer is provided in Table 1:

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<tr>
<th>ITEM</th>
<th>Koolauloa Aquifer System (mgd)</th>
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<tr>
<td>Sustainable Yield</td>
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<td>Less: Other Existing Water Use Permits (shown in Exhibit 2)</td>
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<tr>
<td>Subtotal (Current Available Allocation)</td>
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<td>Less: Pending Completed Applications (shown in Exhibit 3)</td>
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<tr>
<td>Subtotal (Potential Available Allocation/Allocation Deficit)</td>
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(2) Reasonable-beneficial

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

"...the use of water in such a quantity as is necessary for economic and efficient utilization, for a purpose, and in a manner which is both reasonable and consistent with the state and county land use plans and the public interest".
The application is for agricultural use of an additional 0.360 mgd. The total quantity of the requested allocation, 1.174 mgd, will be used to irrigate the existing 250 acres, the 160 acreage previously serviced by the Opana Well (Well No. 4100-02), and an additional 95 acres, for a total of 505 acres of diversified agriculture. The use based on requested area coverage results in approximately 2,325 gpd/acre. This is conservative in comparison with the guidelines of the Oahu Water Management Plan, which suggests that average diversified agricultural irrigation needs may be as high as 7,800 gpd/acre.

However, based on the discussion in item (3) below, the actual area of usage may be decreased, in which case staff will need to recalculate the use per unit area to determine that the use will be reasonable and beneficial.

(3) Interference with other existing legal uses

There are thirteen (13) other wells within a mile of the well. Of these, three (3) are not being used. Additionally, there are 3 wells located approximately 1.25 miles of the subject well, but are within the vicinity of the parcel to be irrigated. The BWS commented that application of non-potable water above the 40 foot contour elevation will adversely affect the quality of water drawn from their wells. As a general policy, the Commission has not taken any action which would allow brackish water to be used above better quality potable basal aquifers.

The BWS Supply estimates that the 40-foot contour is the elevation of the interface between the caprock and the basal aquifer. However, staff feels that further study should be done to determine the precise location of the interface as it could affect the allowable acreage to irrigate with brackish water.

(4) Public interest

The reasonable-beneficial use of water for agriculture, where no adverse impacts to other existing uses will result, is deemed to be in the public interest. However, this will be pending data from item (3).

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

These proposed uses are consistent with the state and county general plans and land use designations.

(6) County land use plans and policies

These proposed uses are consistent with county land use plans and policies.

(7) Interference with Hawaiian home lands rights

All permits are subject to the prior rights of Hawaiian home lands. The Department of Hawaiian Home Lands (DHHIL) and the Office of Hawaiian Affairs (OHA) have reviewed this application and have no objections.
Staff Submittal

October 22, 1997

RECOMMENDATION:

That the Commission:

A. Defer action on WUP No. 243 for the Estate of James Campbell for the reasonable and beneficial use of 1,174,000 gallons per day of brackish/potable water for 505 Acres of diversified crops from the Kahuku Pump 2 Well (Well No. 4159-01), subject to the following:

B Require the applicant to conduct a study to determine the elevation of the interface between the caprock and the basal aquifer and submit the results to the Commission for review.

C. Defer revocation of WUP No. 440 from the Estate of James Campbell pending the modification of WUP No. 243.

Respectfully submitted,

RAE M. LOUI
Deputy Director

Attachment(s): A (Water Use Permit Detailed Information)

Exhibit(s): 1 (Location Map)
2 (Existing Water Use Permits and 12-Month Moving Average Withdrawal)
3 (Pending Water Use Permit Applications)
STAFF SUBMITTAL

WATER USE PERMIT DETAILED INFORMATION

Source Information

AQUIFER: Koolauloa System, Windward Sector, Oahu
Sustainable Yield: 35 mgd
Existing Water Use Permits:
Existing Water Use Permits: 16.059 mgd
Available Allocation: 18.941 mgd
Total of other pending allocations: 3.890 mgd

WELL: Kahuku Pump 2 (Well No. 4159-01)
Location: Kahuku, Oahu, Hawaii, TMK:5-6-03: 43
Pump Capacity: 645 gpm

WELL: Opana Well (Well No. 4100-02)
Location: Kahuku, Oahu, Hawaii, TMK:5-6-03: 43
Year Drilled: 1939
Pump Capacity: 250 gpm

Use Information

Quantity Requested: 1,174,000 gallons per day
Proposed Type of Water Use: 505 Acres Total Diversified Crops
Place of Water Use: T.M.K. 5-7-01: 21

Reported Water Usage: 0.584 mgd

Koolauloa Aquifer System
Current 12-Month Moving Average Withdrawal (See Exhibit 2): 11.584 mgd

Nearby Surrounding Wells and Other Registered Ground Water Use

There are 13 other wells within a mile of the well (see Exhibit 1). Ten (10) of these wells are currently in use. Information from the registration program indicates there are possibly 84 existing wells in the Koolauloa Aquifer System. Most of these have now been field verified and brought under the water use permit system.

ATTACHMENT A
Public Notice

In accordance with HAR §13-171-17, a public notice was published in the Star-Bulletin on August 8, 1997 and August 12, 1997 and copies of the notice were sent to the Mayor's office and the Board of Water Supply. Additional notice copies were sent to the County Council and Department of Water Supply. Copies of the completed application were sent to the Department of Health, Department of Hawaiian Home Lands, Office of Hawaiian Affairs, Aquatic Resources & Historic Preservation Divisions of the Department of Land and Natural Resources, and other interested parties for comments. Written comments and objections to the proposed permit were to be submitted to the Commission by August 27, 1997.

Objections

The public notice specifies that an objector meet the following requirements: (1) state property or other interest in the matter; (2) set forth questions of procedure, fact, law, or policy, to which objections are taken; (3) state all grounds for objections to the proposed permits, (4) provide a copy of the objection letter(s) to the applicant, and (5) submit objections meeting the previous requirements to the Commission by August 27, 1997.

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

Briefs in Support

Responses to objections, or briefs in support, regarding the application are required to be filed with the Commission ten (10) days after an objection is filed and, presumably, copies are served to the applicant. No briefs in support were filed with the Commission.

Field Investigation

No field investigation was done because this is a new application.
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44 Permits Totalling: 17.233 mgd

Available SY: 11.584 mgd

**TOTAL AVAILABLE SY:**

**TOTAL AVAILABLE SY:**

44 Permits Totalling: 17.233 mgd

Available SY: 11.584 mgd
CAMPBELL ESTATE PUMPAGE
PUMP 2 (Well No. 4159-01)

MONTHLY VALUES —— 12-MAV        WUP ALLOCATION

MONTHLY VALUES —— 12-MAV        WUP ALLOCATION

Month (Latest Data 5/97)
Pumpage (mgd)
## Island of OAHU
### Aquifer System: KOOLAULOA

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There are 18 which total 5.060

---

**EXHIBIT 3**
August 28, 1997

Honorable Michael D. Wilson, Chairman
Commission on Water Resource Management
Department of Land and Natural Resources
State of Hawaii

Dear Mr. Wilson:

Water Use Permit Application
Koolauloa Ground Water Management Area, Oahu
Campbell Estate, Well No. 4159-01, Kahuku

We offer the following comments on the subject application.

Board of Water Supply:

The applicant has indicated that the water from the subject well is nonpotable, and BWS has verified the water is brackish. BWS is concerned about the use of brackish irrigation water above the 40-foot contour between Oio Gulch and the western boundary of the area outlined on the map submitted by the applicant, as return irrigation water above this elevation poses a threat to three existing wells at BWS's Opana Station. Usage of brackish water below the 40-foot contour minimizes the threat that return irrigation water will affect the BWS wells.

Department of Land Utilization:

The proposed project has been reviewed for the purpose of providing the following information and does not imply a recommendation of approval by the Department of Land Utilization.

1. The proposed use is permitted under current zoning.

2. A portion of the use is within the Special Management Area. The project is exempt from obtaining a Special Management Area Use Permit under Chapter 25-13(2)(H), ROH.
Planning Department:

The Development Plan Land Use Map designation for the subject site is agricultural. The proposed use is consistent with the Development Plan Common Provisions and the Special Provisions for Koolauloa. The Planning Department has no objection to this application.

The comments of the Board of Water Supply and Department of Land Utilization are attached.

Should you have any questions, please call Gordon Wood of the Planning Department staff at [redacted].

Yours very truly,

PATOICK T. ONISHI
Chief Planning Officer

PTO:lh

Attachments

c: Honorable Jeremy Harris, Mayor
(Mayor's Control #31273)
Mr. Michael D. Wilson, Chairperson  
Commission on Water Resource Management  
Department of Land and Natural Resources  
State of Hawaii

Dear Mr. Wilson:

Subject: Your Letter of July 21, 1997 on the Permitted Use for Campbell Estate Well 4159-01, Kahuku

Thank you for the opportunity to comment on this permitted use. We have concerns about the use of brackish water from this pumping station on land above the 40-foot contour between Oio Gulch and the western boundary outlined on the map submitted by the applicant. The applicant has indicated the water is nonpotable which we have verified by records of water quality that indicate the water is brackish. Brackish water used above this elevation poses a threat to three existing wells at our nearby Opana Station. Usage below the 40-foot contour level minimizes the threat that return irrigation water will affect our wells.

We return the cover memo form accordingly marked.

If you have any questions, please contact Chester Lao at [Redacted]

Very truly yours,

[Signature]
Raymond H. Satoh  
Manager and Chief Engineer

Attachment

PCC: Planning Department

Pure Water...our greatest need - use it wisely
MEMORANDUM

TO: PATRICK T. ONISHI, CHIEF PLANNING OFFICER
    PLANNING DEPARTMENT

FROM: JAN NAOE SULLIVAN, DIRECTOR
    DEPARTMENT OF LAND UTILIZATION

SUBJECT: WATER USE PERMIT APPLICATION

Applicant: The Estate of James Campbell
Tax Map Key(s): 5-7-01: por. 21
Type of Use(s): Diversified crop irrigation
Well No(s): Kahuku Pump 2 (Well No. 4159-01)

The proposed use on the above-referenced tax map key(s) has been reviewed. We find that the:

1. Current zoning designation is AG-1 Restricted Agricultural District.

  [X] Proposed use is permitted under current zoning.

  [ ] Proposed use(s) may be permitted if the following permit(s) is/are obtained:


  [ ] Proposed use(s) is/are not permitted under current zoning.

The Department of Land Utilization is currently processing a zone change application for the project, which if approved by the City Council, would result in the use being consistent with the proposed district zoning.

  [ ] Yes
  [ ] No
2. [X] Portion of the use is within the Special Management Area
   The project is exempt from obtaining a Special Management
   Area Use Permit under Chapter 25-1.3(2)(H), Revised
   Ordinances of Honolulu.

   [ ] Use is not within the Special Management Area.

3. Additional Comments: ______________________________________
   ______________________________________
   ______________________________________

The proposed project has been reviewed for the purpose of providing
the above information and does not imply a recommendation of
approval by this Department. Should you have any questions, please
contact the Environmental Review Branch at __________

JAN NACE SULLIVAN
Director of Land Utilization

JNS:am

g:ppd\9705165.djt
Mr. Michael D. Wilson, Chairperson  
Commission on Water Resource Management  
Department of Land and Natural Resources  
State of Hawaii

Dear Mr. Wilson:

Subject: Your Letter of July 21, 1997 on the Permitted Use for Campbell Estate Well 4159-01, Kahuku

Thank you for the opportunity to comment on this permitted use. We have concerns about the use of brackish water from this pumping station on land above the 40-foot contour between Oio Gulch and the western boundary outlined on the map submitted by the applicant. The applicant has indicated the water is nonpotable which we have verified by records of water quality that indicate the water is brackish. Brackish water used above this elevation poses a threat to three existing wells at our nearby Opana Station. Usage below the 40-foot contour level minimizes the threat that return irrigation water will affect our wells.

We return the cover memo form accordingly marked.

If you have any questions, please contact Chester Lao at: 

Very truly yours,

Raymond H. Sato  
Manager and Chief Engineer

Attachment

cc: Planning Department
TO: 
Honorable Kali Watson, Chairperson
Department of Hawaiian Home Lands

Honorable Lawrence Miike, Director
Department of Health
Attn: Mr. Dennis Tulang
Attn: Mr. William Wong

Honorable Clayton H. W. Hee, Chairperson
Office of Hawaiian Affairs

Ms. Esther Ueda, Executive Officer
Land Use Commission

Mr. Raymond Sato, Manager & Chief Engineer
Honolulu Board of Water Supply
Attn: Mr. Chester Lao
Attn: Mr. Barry Usugawa

Mr. Patrick Onishi, Chief Planning Officer
Planning Department

FROM: 
Michael D. Wilson, Chairperson
Commission on Water Resource Management

SUBJECT: Water Use Permit Application
Koolauloa Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application for Campbell Estate for Well No. 4159-01. Public notice of this application will be published in the Honolulu Advertiser issues of August 5, 1997, August 12, 1997.

We would appreciate your review of the proposed use that is described in the attached application for any conflicts or inconsistencies with the land use designations, plans, policies, programs, or objectives specific to your organization or department only. Please respond by returning this cover memo form by August 27, 1997.

If you have any questions, require additional information, or would like to request an extension of the review period for this application, please contact Ryan Imata at [contact information].

RI:ss
Attachment(s)

Response:
( ) We have no comments
( ) We have no objections
( ) Comments attached (Board of Water Supply letter of 8/14/97)

Contact Person: Bert Kurioka Phone: [redacted]
Signed: Raymond Sato Date: AUG 14 1997
Manager and Chief Engineer
TO:  
Honorable Kali Watson, Chairperson  
Department of Hawaiian Home Lands  
Honorable Lawrence Miike, Director  
Department of Health  
Attn:  Mr. Dennis Tulang  
Attn:  Mr. William Wong  
Honorable Clayton H. W. Hee, Chairperson  
Office of Hawaiian Affairs  
Ms. Esther Ueda, Executive Officer  
Land Use Commission  
Mr. Raymond Sato, Manager & Chief Engineer  
Honolulu Board of Water Supply  
Attn:  Mr. Chester Lao  
Attn:  Mr. Barry Usugawa  
Mr. Patrick Onishi, Chief Planning Officer  
Planning Department

FROM:  Michael D. Wilson, Chairperson  
Commission on Water Resource Management

SUBJECT:  Water Use Permit Application  
Koolauloa Ground Water Management Area, Oahu

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If you have any questions, require additional information, or would like to request an extension of the review period for this application, please contact Ryan Imaia.

RI:ss  
Attachment(s)

Response:  
K We have no comments  
( ) We have no objections  
( ) Comments attached

Contact Person:  Bill Wong

Signed:  Bill Wong

Phone:  
Date:  8/1/97
TO: Aquatic Resources  
Forestry and Wildlife/Natural Area Reserve System  
Historic Preservation  
Land Management  
State Parks  

FROM: Rae M. Loui, Deputy Director  
Commission on Water Resource Management  

SUBJECT: Request for Comments  
Water Use Permit Application  
Koolauloa Ground Water Management Area, Oahu  

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If you have any questions, require additional information, or would like to request an extension of the review period for this application, please contact Ryan Imata at [redacted].

RI:ss  
Attachment(s)  

Response:  

( ✓) We have no comments  
( ) We have no objections  
( ) Comments attached  

Contact Person:  
Signed:  

Phone:  
Date:  JUL 23 1997
TO:

Honorable Kali Watson, Chairperson
Department of Hawaiian Home Lands

Honorable Lawrence Miike, Director
Department of Health
Attn: Mr. Dennis Tulang
Attn: Mr. William Wong

Honorable Clayton H. W. Hee, Chairperson
Office of Hawaiian Affairs

Ms. Esther Ueda, Executive Officer
Land Use Commission

Mr. Raymond Sato, Manager & Chief Engineer
Honolulu Board of Water Supply
Attn: Mr. Chester Lao
Attn: Mr. Barry Usugawa

Mr. Patrick Onishi, Chief Planning Officer
Planning Department

FROM:

Michael D. Wilson, Chairperson
Commission on Water Resource Management

SUBJECT:

Water Use Permit Application
Koolauloa Ground Water Management Area, Oahu

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If you have any questions, require additional information, or would like to request an extension of the review period for this application, please contact Ryan Imata at [redacted].

RI:ss
Attachment(s)

Response:

X) We have no comments
( ) We have no objections
( ) Comments attached

Contact Person: Luis A. Manrique
Signed: Keze Olaye
Phone: [redacted]
Date: 08/19/97
TO: Aquatic Resources  
Forestry and Wildlife/Natural Area Reserve System  
Historic Preservation  
Land Management  
State Parks  

FROM: Rae M. Loui, Deputy Director  
Commission on Water Resource Management  

SUBJECT: Request for Comments  
Water Use Permit Application  
Koolauloa Ground Water Management Area, Oahu  

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We would appreciate your review of the attached application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your division only. Please respond by returning this cover memo form by August 27, 1997.  

If you have any questions, require additional information, or would like to request an extension of the review period for this application, please contact Ryan Imata at [Contact Person: Annette Tagawa]  

Response:  
( ) We have no comments  
( ) We have no objections  
( ) Comments attached  

Signed: ERIC ONIZUKA, Acting Administrator  
Phone: [Redacted]  
Date: 8/11/97
TO:  
Honorable Kali Watson, Chairperson  
Department of Hawaiian Home Lands  
Honorable Lawrence Miike, Director  
Department of Health  
Attn: Mr. Dennis Tulang  
Attn: Mr. William Wong  
Honorable Clayton H. W. Hee, Chairperson  
Office of Hawaiian Affairs  
Ms. Esther Ueda, Executive Officer  
Land Use Commission  
Mr. Raymond Sato, Manager & Chief Engineer  
Honolulu Board of Water Supply  
Attn: Mr. Chester Lao  
Attn: Mr. Barry Usugawa  
Mr. Patrick Onishi, Chief Planning Officer  
Planning Department

FROM:  
Michael D. Wilson, Chairperson  
Commission on Water Resource Management

SUBJECT: Water Use Permit Application  
Koolauloa Ground Water Management Area, Oahu

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If you have any questions, require additional information, or would like to request an extension of the review period for this application, please contact Ryan Imata at [ ].

RI:ss
Attachment(s)

Response:

( ) We have no comments
( ) We have no objections
( ) Comments attached

Contact Person: Esther Ueda  
Phone: [ ]

Signed: ____________  
Date: 7/24/97
STATE OF HAWAI'I
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
LAND USE COMMISSION

July 24, 1997

Mr. Michael D. Wilson, Chairperson
Commission on Water Resource Management
Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawai‘i 96809

Dear Mr. Wilson:

Subject: Water Use Permit Application
Koolauloa Ground Water Management Area, Oahu
Campbell Estate - Well No. 4159-01

We have reviewed the subject water use permit application, as transmitted by your memorandum dated July 21, 1997, and have the following comments to offer:

1) We confirm that the location of Well No. 4159-01 and, identified as TMK: 5-6-03: 43, is within the State Land Use Urban District.

2) We confirm that the location of proposed water use, identified as TMKs: 5-6-05: 06, 07, and 5-6-01: 21, is within the State Land Use Agricultural District.

We have no further comments to offer at this time.

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

As requested, please find enclosed the cover memorandum for the subject application.

If you have any questions in regards to this matter, please feel free to contact me or Leo Asuncion of my staff at [Redacted].

Sincerely,

ESTHER UEDA
Executive Officer

Enclosure
TO: Honorable Kali Watson, Chairperson
    Department of Hawaiian Home Lands

Honorable Lawrence Miike, Director
    Department of Health
    Attn: Mr. Dennis Tulang
    Attn: Mr. William Wong

Honorable Clayton H. W. Hee, Chairperson
    Office of Hawaiian Affairs

Ms. Esther Ueda, Executive Officer
    Land Use Commission

Mr. Raymond Sato, Manager & Chief Engineer
    Honolulu Board of Water Supply
    Attn: Mr. Chester Lao
    Attn: Mr. Barry Usugawa

Mr. Patrick Onishi, Chief Planning Officer
    Planning Department

FROM: Michael D. Wilson, Chairperson
    Commission on Water Resource Management

SUBJECT: Water Use Permit Application
            Koolauloa Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application for Campbell Estate for Well No. 4159-01. Public notice of this application will be published in the Honolulu Advertiser issues of August 5, 1997, August 12, 1997.

We would appreciate your review of the proposed use that is described in the attached application for any conflicts or inconsistencies with the land use designations, plans, policies, programs, or objectives specific to your organization or department only. Please respond by returning this cover memo form by August 27, 1997.

If you have any questions, require additional information, or would like to request an extension of the review period for this application, please contact Ryan Imata at [redacted].
TO:  
Honorable Kali Watson, Chairperson  
Department of Hawaiian Home Lands  

Honorable Lawrence Miike, Director  
Department of Health  
Attn: Mr. Dennis Tulang  
Attn: Mr. William Wong  

Honorable Clayton H. W. Hee, Chairperson  
Office of Hawaiian Affairs  

Ms. Esther Ueda, Executive Officer  
Land Use Commission  

Mr. Raymond Sato, Manager & Chief Engineer  
Honolulu Board of Water Supply  
Attn: Mr. Chester Lao  
Attn: Mr. Barry Usugawa  

Mr. Patrick Onishi, Chief Planning Officer  
Planning Department  

FROM:  
Michael D. Wilson, Chairperson  
Commission on Water Resource Management  

SUBJECT:  
Water Use Permit Application  
Koolauloa Ground Water Management Area, Oahu  

Transmitted for your review and comment is a copy of a water use permit application for Campbell Estate for Well No. 4159-01. Public notice of this application will be published in the Honolulu Advertiser issues of August 5, 1997, August 12, 1997.  

We would appreciate your review of the proposed use that is described in the attached application for any conflicts or inconsistencies with the land use designations, plans, policies, programs, or objectives specific to your organization or department only. Please respond by returning this cover memo form by August 27, 1997.  

If you have any questions, require additional information, or would like to request an extension of the review period for this application, please contact Ryan Imata at [REDACTED]  

Response:  
☑️ We have no comments  
☑️ We have no objections  
☐ Comments attached  

Contact Person: Lori N. Kajiwara  
Phone: [REDACTED]  
Signed: Lori N. Kajiwara  
Date: 7-24-97
Transmitted for your review and comment is a copy of a water use permit application for Campbell Estate for Well No. 4159-01. Public notice of this application will be published in the Honolulu Advertiser issues of August 5, 1997, August 12, 1997.

We would appreciate your review of the attached application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your division only. Please respond by returning this cover memo form.

If you have any questions, require additional information, or would like to request an extension of the review period for this application, please contact Ryan Imata at...

Attachment(s)

Response:

☒ We have no comments
☐ We have no objections
☐ Comments attached

Contact Person: Rae M. Loui, Deputy Director

Signed: ____________________________

Date: 7/24/97
PUBLIC NOTICE
Applications for Water Use Permits
Koolauloa and Kalihi Ground Water Management Areas, Oahu

The following applications for water use permits have been received and are hereby made public in accordance with Department of Land and Natural Resources Administrative Rules 13-171, "Designation and Regulation of Water Management Areas."

Kahuku Pump 2 (Well No. 4159-01)
Applicant: Campbell Estate
Date Completed Application Received: July 1, 1997
Aquifer: Koolauloa System, Windward Sector, Oahu
Water Source: Kahuku Pump 2 Well (Well No. 4159-01) at Kahuku, Oahu, Tax Map Key 5-6-03: 43
Quantity Requested: 1,174,000 gallons per day.
Existing/New Water Use: 160 Acres Diversified Crops
Place of Water Use: Kawela at Tax Map Key: 5-7-01: 21

Ocean Seafoods #1 (Well No. 1852-10)
Applicant: Ocean Seafoods
Date Completed Application Received: July 11, 1997
Aquifer: Kalihi System, Honolulu Sector, Oahu
Water Source: Ocean Seafoods #1 Well (Well No. 1852-10) at 1068 Puuwai St., Sand Island, Oahu, Tax Map Key 1-5-41:328
Quantity Requested: 1,000 gallons per day.
New Water Use: Salt water use for live lobster and crab holding tanks
Place of Water Use: 1068 Puuwai St., Sand Island at Tax Map Key: 1-5-41:328

Written objections or comments on the above applications may be filed by any person who has property interest in any land within the hydrologic unit of the source of water supply, any person who will be directly and immediately affected by the proposed water use, or any other interested person. Written objections shall: (1) state property or other interest in the matter (provide TMK information); (2) set forth questions of procedure, fact, law, or policy, to which objections are taken; and (3) state all grounds for objections to the proposed permit. Written objections must be received by August 27, 1997. Objections must be sent to 1) the Commission on Water Resource Management, and 2) the applicants at the above addresses.

COMMISSION ON WATER RESOURCE MANAGEMENT

[Signature]
RAE M. LOUI, Deputy Director for
MICHAEL D. WILSON, Chairperson

Dated: JUL 21 1997

Ms. Donna B. Goth
Campbell Estate

Dear Ms. Goth:

We acknowledge receipt, on July 1, 1997, of your completed water use permit application for the Kahuku Pump 2 Well (Well No. 4159-01). You can expect your application to be processed within ninety (90) days from the date of receipt unless there are objections to your application.

Enclosed is a copy of the public notice for your water use permit application which will be published in the Honolulu Advertiser issues of August 5, 1997, August 12, 1997.

Please be aware that there may be objections to your application. If objections are made, the objector is required to file such objections with the Commission and is also required to send you a copy of the objections.

You, or any other party, may respond to objections by filing a brief in support of your application with the Commission within ten (10) days of the filing of an objection. You, or the other party, must also send a copy of the response to the objector.

If you have any questions, please contact Ryan Imata at [Redacted]

Sincerely,

[Signature]

RAE M. LOUI
Deputy Director

RI:ss
Enclosure
TO: Aquatic Resources
    Forestry and Wildlife/Natural Area Reserve System
    Historic Preservation
    Land Management
    State Parks

FROM: Rae M. Loui, Deputy Director

SUBJECT: Request for Comments
          Water Use Permit Application
          Koolauloa Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application for Campbell Estate for Well No. 4159-01. Public notice of this application will be published in the Honolulu Advertiser issues of August 5, 1997, August 12, 1997.

We would appreciate your review of the attached application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your division only. Please respond by returning this cover memo form by August 27, 1997.

If you have any questions, require additional information, or would like to request an extension of the review period for this application, please contact Ryan Imata at [phone number].

RI: ss
Attachment(s)

Response:

( ) We have no comments
( ) We have no objections
( ) Comments attached

Contact Person: ___________________________ Phone: ___________________________

Signed: ___________________________ Date: ___________________________
TO: Other Interested Parties  
FROM: Rae M. Loui, Deputy Director  
SUBJECT: Request for Comments  

Water Use Permit Application  
Koolauloa Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application for Campbell Estate for Well No. 4159-01. Public notice of this application will be published in the Honolulu Advertiser issues of August 5, 1997, August 12, 1997.

We would appreciate your review of the attached application for any conflicts or interferences with the programs, plans, and objectives of the organization or agency that you represent. Written objections should be made in accordance with Section 13-171-18 of our Administrative Rules and must be filed by the August 27, 1997 deadline.

If you have any questions, require additional information, or would like to request an extension of the review period for this application, please contact Ryan Imata at _______.

RI: ss
Attachment(s)

Response:

( ) We have no comments
( ) We have no objections
( ) Comments attached

Contact Person: ___________________________ Phone: ______________

Signed: ___________________________ Date: ______________
TO: Honorable Kali Watson, Chairperson
   Department of Hawaiian Home Lands

   Honorable Lawrence Miike, Director
   Department of Health
   Attn: Mr. Dennis Tulang
   Attn: Mr. William Wong

   Honorable Clayton H. W. Hee, Chairperson
   Office of Hawaiian Affairs

   Ms. Esther Ueda, Executive Officer
   Land Use Commission

   Mr. Raymond Sato, Manager & Chief Engineer
   Honolulu Board of Water Supply
   Attn: Mr. Chester Lao
   Attn: Mr. Barry Usugawa

   Mr. Patrick Onishi, Chief Planning Officer
   Planning Department

FROM: Michael D. Wilson, Chairperson
   Commission on Water Resource Management

SUBJECT: Water Use Permit Application
         Koolauloa Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application for
Campbell Estate for Well No. 4159-01. Public notice of this application will be published in the

We would appreciate your review of the proposed use that is described in the attached application
for any conflicts or inconsistencies with the land use designations, plans, policies, programs, or objectives
specific to your organization or department only. Please respond by returning this cover memo form
by August 27, 1997.

If you have any questions, require additional information, or would like to request an extension of
the review period for this application, please contact Ryan Imata at [redacted].

RI:ss
Attachment(s)
Response:

( ) We have no comments
( ) We have no objections
( ) Comments attached

Contact Person: __________________________ Phone: __________________________

Signed: __________________________ Date: __________________________
TO: Ms. Jan Sullivan, Director  
Department of Land Utilization

FROM: Michael D. Wilson, Chairperson  
Commission on Water Resource Management

SUBJECT: WATER USE PERMIT APPLICATION  
Koolauloa Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application for Campbell Estate for Well No. 4159-01. Public notice of this application will be published in the Honolulu Advertiser issues of August 5, 1997, August 12, 1997.

We would appreciate your review of the proposed use that is described in the attached application (i.e. line item 6 or Table 1). Specifically, we request that you inform us of the current zoning designation for the TMK parcel, or portion thereof, for the proposed use area(s) and, secondly, whether the current zoning designation is appropriate for the proposed water use.

We have attached a TMK map(s) that covers the proposed use area(s). Where water is proposed for use on only a portion of a TMK parcel, or on parcels with multiple zoning, the proposed use area(s) has been clearly delineated on the attached map. Please respond by returning this cover memo along with your review comments by August 27, 1997.

If you have any questions, require additional information, or would like to request an extension of the review period for this application, please contact Ryan Imata.

RI: ss  
Attachment(s)

Response:

( ) The proposed water use(s) is consistent with the current zoning designation(s).
( ) Comments attached

Contact Person: ____________________________ Phone: ____________________________

Signed: ____________________________ Date: ____________________________
Honorable Jeremy Harris, Mayor
City & County of Honolulu
City Hall
Honolulu, HI

Dear Mayor Harris:

Notice of an Application for Water Use Permit
Koolauloa Ground Water Management Area, Oahu

In accordance with the Department of Land and Natural Resources Administrative Rules, Section 13-171-17(a), we are sending you a copy of the public notice for the water use permit application for Campbell Estate for Well No. 4159-01, which will be published in the Honolulu Advertiser.

In addition, Section 13-171-13(b), of our Administrative Rules, states:

"Within sixty days after receipt of notice of a permit application, the county shall inform the commission if the proposed use is inconsistent with the county land use plans and policies."

We have attached a copy of the application for your review and would appreciate receiving your comments, within the next sixty (60) days, on whether this water use is consistent with county plans and policies. For your information and convenience, we have sent notices to the Board of Water Supply and Department of Land Utilization for their comment.

Very truly yours,

Michael D. Wilson
Chairperson

Enclosures
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REMARKS:

LINE (1) Well No. 4159-01 (WUPA)
LINE (2)
LINE (3)
LINE (4)

TOTAL 25.00

THE ESTATE OF JAMES CAMPBELL

DATE: 7/18/97

TO THE ORDER OF: Department of Land & Natural Resources

AMOUNT $25.00

VOID AFTER 90 DAYS
Ms. Rae M. Loui  
Deputy Director  
Commission on Water Resource Management  
Department of Land and Natural Resources  
State of Hawaii

Dear Ms. Loui:

Transfer of Water Use Permit from Opana Well (Well No. 4100-02)  
to Kahuku Pump 2 (Well No. 4159-01)

In May 1996 the Estate requested a Water Use Permit and Pump Installation Permit for the reactivation of Opana Well (Well No. 4100-02) to pump 360,000 gallons per day ("gpd") for agricultural use on diversified crops. Unfortunately, the well production was much less than anticipated, so we want to cap this well at the present time, pending future usage.

In place of the Opana well, the required quantity of 360,000 gpd of irrigation water can be produced by installing the same Opana well pump and motor at the Kahuku Pump 2 ("KP-2") site (Well No. 4159-01). The KP-2 irrigation water distribution system can deliver water to the area originally intended to be supplied by the Opana well. Therefore, we request that the 360,000 gpd water use permit for Opana well be transferred to our KP-2 pumping station, where sufficient water is available.

In addition, the Estate is expanding the crop area served by the original two pumps at KP-2 from 250 acres to 345 acres, by converting some current pasture land to diversified cropping. We are not requesting any additional allocation for the 95 new acres at this time. Attached exhibits indicate the areas involved.

Very truly yours,

Donna B. Goth  
Director, Hawaii Development

Enclosures

jck:010453021K10004
APPLICATION FOR WATER USE PERMIT

1. (a) APPLICANT: The Estate of James Campbell
   (b) LANDOWNER OF SOURCE: The Estate of James Campbell

2. WATER MANAGEMENT AREA: Koolauloa
   ISLAND: Oahu

3. (a) EXISTING WELL/DIVERSION NAME AND STATE NUMBER: Kahuku Pump 2 (Weli No. 4159-01)
   (b) PROPOSED (NEW) WELL/DIVERSION NAME: Kahuku Pump 2 (Well No. 4159-01)

4. SOURCE TYPE (check one): □ Stream □ Basal □ Dike-confined □ Perched □ Caprock

5. METHOD OF TAKING WATER (check one): □ Artesian □ Well & Pump □ Diverted Surface □ Other (explain)

6. LOCATION OF PROPOSED WATER USE: (If possible, show on same maps as source location. Otherwise, attach similar maps)
   (a) PUC-Regulated System □ Intended Dedication to Dept./Board of Water Supply □ Non-PUC-Regulated Private System
   (b) Proposed use of water is: □ Existing □ New □ Both existing & new uses
   (c) Tax Map Key: 5 - 6 - 03: 43 (Attach a USGS map, scale 1"=2000", and a property tax map showing source location referenced to established property boundaries.)
   (d) Address: Kahuku, Oahu, Hawaii

7. QUANTITY OF WATER REQUESTED: (360,000 additional) gallons per day (averaged over 1 year)

8. METHOD OF MEASUREMENT: □ Flowmeter □ Open-pipe □ Weir □ Orifice □ Other (explain)

9. QUALITY OF WATER REQUESTED: □ Fresh □ Brackish □ Salt □ Potable □ Non-Potable □ Other (explain) *2

10. PROPOSED USE: □ Municipal (including hotels, stores, etc.) □ Individual Domestic □ Irrigation □ Industrial □ Military □ Other (explain) *2

11. TOTAL NUMBER OF RESIDENCES TO BE SERVED: None

12. TOTAL ACRES TO BE IRRIGATED AND TYPE OF CROP: 160 ac. additional Diversified Crops (acres) (crop)

13. PROPOSED TIME OF WATER WITHDRAWAL OR DIVERSION: 24 hours per day (daytime hours of operation, ex. 7 a.m. to 2 p.m.)

14. APPLICANT MUST ESTABLISH THAT THE PROPOSED USE OF WATER:
   (a) Can be accommodated with the available water source.
   (b) Is a reasonable beneficial use as defined in section 13-171-2, HAR. (see backside of this application)
   (c) Will not interfere with any existing legal use.
   (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 general policies.

15. REMARKS, EXPLANATIONS: (see backside of this application)

NOTE: Signing below indicates that the signatories understand and swear that: 1) the information provided on this application is accurate and true to the best of the their knowledge; 2) Item 14 is the responsibility of the applicant prior to Commission approval; 3) If necessary, further information may be required before the application is considered complete; 4) If a water use permit is granted by the Commission, this permit is subject to prior existing permitted uses, changes in sustainable yields and Instream flow standards, reserved uses as defined by the Commission, and Hawaiian Home Lands future uses; and 5) Upon permit approval, a water shortage plan must be submitted by the applicant should the commission require one.

Applicant (print) The Estate of James Campbell
Landowner (print) The Estate of James Campbell

Signature: [Signature]
Date: 1/17/97

Signature: [Signature]
Date: 1/17/94

WUPA FORM (8/27/96)
"Reasonable-beneficial use" means the use of water in such a quantity as is necessary for economic and efficient utilization, for a purpose, and in a manner which is not wasteful and is both reasonable and consistent with the state and county land use plans and the public interest.

15. REMARKS, EXPLANATIONS (cont'd):

*1 - Artesian water flows into a sump, and we propose to pump from the sump; *2 - Other proposed use - cleaning agricultural products.

In May 1996 the Estate requested a Water Use Permit and Pump Installation Permit for the reactivation of Opana Well (Well No. 4100-02) to pump 360,000 gallons per day ("gpd") for agricultural use on 160 acres of diversified crops projected to use 2,250 gallons per day per acre ("gpd/a") (see Exhibit "A", "B", and "C"). Unfortunately, the well production was much less than anticipated (only about 110,000 gpd), so we want to cap this well at the present time, pending possible future usage. In place of the Opana well, the required quantity of irrigation water can be produced by installing the same Opana well pump and motor at the Kahuku Pump 2 ("KP-2") site (Well No. 4159-01). The KP-2 irrigation water distribution system can

<table>
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15. REMARKS, EXPLANATIONS (cont’d):

deliver water to the area originally intended to be supplied by the Opana well. Therefore, we request that the 360,000 gpd water use permit for Opana well be transferred to our KP-2 pumping station, where sufficient water is available; the pumping capacity at this location was 11.9 mgd when Kahuku Plantation Co., Ltd. was in operation. The revised allocation for KP-2 would then be 1,174,000 gpd (814,000 gpd current allocation plus 360,000 gpd additional proposed).

In addition, the Estate is expanding the crop area served by the original two pumps at KP-2 from 250 acres to 345 acres, by converting some current pasture land into diversified cropping. This would more fully utilize the existing water use allocation from the original two KP-2 pumps (814,000 gpd), for an average of 2,359 gpda. The total area of water use from the original KP-2 wells is shown in Exhibits “D”, “E”, and “F”.

Crop Area Irrigated from Existing Water Allocation at KP-2 (814,000 gpd)

KP-2 Pump -
KP-2 Pipeline -
Diversified Crop Area -
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FILE 4159-01
MEMORANDUM FOR THE RECORD

FROM: LENORE

SUBJECT: ANTICIPATED WUPA TO MODIFY WUP FOR 4159-01 (PUMP 2)

Jim Russell called 6/9/97. Informed him that Ryan will be processing. He just wanted to go over a proposed modification WUPA that Campbell will be submitting shortly.

They want to cap 4100-02 because low yield and "transfer" 0.360 mgd allocation to 4159-01, which has an existing allocation for 0.814 mgd. The two wells are already permitted to water the same TMK (different portions). They also want to add another adjacent TMK that will also be watered with 4159-01. The total requested allocation will be 1.174 mgd (.814 + .360).

4159-01 is an artesian well that flows into a sump. Campbell is going to pump from the sump, therefore no pump installation permit is required.
Section 13-171-2, Hawaii Revised Statutes -

"Reasonable-beneficial use" means the use of water in such a quantity as is necessary for economic and efficient utilization, for a purpose, and in a manner which is not wasteful and is both reasonable and consistent with the state and county land use plans and the public interest.

15. REMARKS, EXPLANATIONS (cont'd):

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<tr>
<td>TOTAL GPD</td>
<td></td>
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</tr>
</tbody>
</table>
Chairperson and Members  
Commission on Water Resource Management  
December 8, 1993

MINUTES

FOR THE MEETING OF THE
COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: December 8, 1993
TIME: 10:00 a.m.
PLACE: DLNR Board Room  
Kalanimoku Building  
Honolulu, Hawaii

ROLL CALL
Chairperson Ahue called the meeting of the Commission on Water  
Resource Management to order at 10:14 a.m.

The following were in attendance:

MEMBERS: Mr. Keith Ahue  
Mr. Richard Cox  
Mr. J. Douglas Ing  
Mr. Robert Nakata

STAFF: Ms. Rae Loui  
Mr. George Matsumoto  
Mr. Edwin Sakoda  
Mr. Yoshi Shiroma  
Mr. Roy Hardy  
Mr. David Higa  
Ms. Lenore Nakama  
Ms. Sallie Edmunds  
Ms. Sharon Kokubun

OTHERS:

Barry Ching  
Sherrie Samuels  
Alwyn Morisako  
Barry Usagawa  
David Martin  
Robert Ishida  
Creighton Mattoon  
Winnie Miller  
Lawana Mendes  
Charley Reppun  
V. Kaio  
Sterling Chow  
Lloyd Lee  
Chester Lao  
Tom Bissen  
Tep Kalambahiti  
Jim Anthony  
Dawn Wasson  
Guy Nakamoto  
Joyceline Lee  
Paul Reppun  
Bert Kuioka
All written testimonies submitted at the meeting are filed in the Commission office and are available for review by interested parties.

**AGENDA 1**

**ITEM 1** RESOLUTION

The Commission unanimously approved the resolution expressing their appreciation and gratitude to George S. Matsumoto who will be retiring on December 30, 1993 after serving thirty-seven years with the Territory and the State of Hawaii. (Cox/Nakata).

Dr. Jim Anthony of the Hawaii-Laukekawai Association stated that he has always found Mr. Matsumoto to be congenial and patient, even when tested.

He has always been fair and a good public servant. Dr. Anthony said citizens have the right to complain about public servants who don't do the jobs but felt that Mr. Matsumoto has always done his job, done it well, and has done it in good grace. Dr. Anthony added his best wishes and congratulations to that of the Commission's.

**ITEM 2** MINUTES OF THE NOVEMBER 17, 1993 MEETING

Unanimously approved (Cox/Nakata).

**ITEM 3** MAUI DEPARTMENT OF PUBLIC WORKS, STREAM CHANNEL ALTERATION PERMIT, KALEPA GULCH, WAIHEE, MAUI

Mr. Cox asked how the traffic would be handled while the project is ongoing.

Mr. Lloyd Lee of the Maui County Public Works Department stated that a detour road and culvert would be constructed makai of the construction. Mr. Cox suggested that the detour culvert should also be approved and included in the recommendations.

Mr. Dave Martin of the Native Hawaiian Advisory Committee (NHAC) submitted testimony (see Commission file) recommending that the SCAP be deferred until archaeological survey reports and mitigation plans are submitted to the Commission. Chairperson Ahue stated that should there be any archaeological sites uncovered, the Historic Preservation Division would halt all work on the project. This is a standard condition used by the Commission as well as the Land Board.
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1.  KAHANA VALLEY STATE PARK (3352-01)

   Unanimously approved as submitted (Ing/Nakata).

2.  KUALOA RANCH, INC., (3351-04)

   Amended: "... for the reasonable and beneficial use of 5,000 gallons per day of nonpotable water for agricultural irrigation from the Yamamoto Well..."

   Unanimously approved as amended (Ing/Nakata).

3.  BOARD OF WATER SUPPLY (3353-01 & 02)

   Unanimously approved for deferral as recommended by staff (Ing/Nakata).

ITEM 3  WATER USE PERMIT APPLICATIONS, Koolaupoa Ground Water Management Area, Oahu

The following corrections were made:

1.  Page 2 - 12-month moving average as of 9/93 should be 24 mgd, not 4 mgd.

2.  Page 3, Table 2 (Hawaiian Marine Enterprises 4157-08) - Staff recommends deferral since a SMA may also be required. Figures based on ADP estimates on Table 2, Well No 4258-14 should be Amorient RCA 2, Note Amorient RCA 1.

3.  Page 4, Table 3 - 12-month moving average for Turf Farm & Kahuku School (4057-06) should be 0.037 mgd. Page 4, Table 3 (Kahuku Prawn Farm 4057) - 12-month moving average should be 1.2 mgd instead of 0.900 mgd.

Mrs. Kaio explained that 7,000 gpd was not sufficient. Zion Securities had flooded and contaminated the Kaio’s lands, therefore the lands needed to be dried before it could be planted again. When the field investigation was done most of the taro fields were in the drying process. Therefore, they needed the 17,000 gpd requested.

Discussion followed on:

1)  Whether or not some or all the applications should be deferred to allow declarants time to be notified and their concerns addressed.
Chairperson and Members
Commission on Water Resource Management December 8, 1993

2) If a public hearing would also be necessary.

Amendments were made to staff recommendations and action taken:

1) Amended to read: "For all approved water use permits, that the Commission add the special condition that the applicants may continue their existing use of ground water within the limits approved by the Commission, and that any delay in receipt of the permit document shall not be a reason to interrupt their existing uses".

Table 2: Defer action on Hawaiian Marine Enterprises (4157-08).

Amend requested amount to T. Astro (4258-05) to 3.000 mgd.
Exclude the condition that a flow meter be installed.

Unanimously approved as with the amendments to Table 2 (Ing/Cox).

2) Amended to read: "That the Commission approve and defer the issuance of interim water use permits to the Estate of James Campbell for the reasonable and beneficial existing salt water aquacultural needs according to Table 2 (Campbell Estates’ Existing Salt Water Wells for Aquaculture) and their corresponding descended uses subject to the standard water use permit conditions listed in Attachment B.

Reporting of water use will be done according to individual descriptions.

Exclude the condition that a flow meter be installed.

Unanimously approved as amended (Ing/Cox).

3) Unanimously approved with amendments to Table 3 (Campbell Estates’ Existing Non-Salt Water Wells for Various Uses) as follows and that reporting of water use will be done according to individual descriptions.

Page 4, Table 3 - 12-month moving average for Turf Farm & Kahuku School (4057-06) be changed to 0.067 mgd.

Page 4, Table 3 (Kahuku Prawn Farm 4057-10) - 12-month moving average be changed to 1.2 mgd instead of 0.900 mgd.

Unanimously approved as amended (Ing/Cox).
Chairperson and Members

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4) Defer all Board of Water Supply applications contained in Table 4.

Unanimously approved for deferral (Cox/Ing).

5) Hanohano Enterprises, Inc. (3153-01) - Amendment to last line of 5a. to read Recommendation 5 instead of Recommendation 2.

Unanimously approved as amended (Ing/Cox).

6) George Nihipali (3855-12) - Unanimously approved for deferral as recommended by staff (Cox/Nakata).

7) Jacob Kaio (3956-07) - Unanimously approved the issuance of an interim water use permit for the amended amount of 17,280 gpd instead of 7,000 gpd (Cox/Nakata).

OTHER BUSINESS  Ms. Loui reported that the Hawaii Water Works Association (HWWA) will be sponsoring a sustainable yield workshop on January 13, 1993 at the Pagoda Hotel. Discussion will be on methodology.

ADJOURNMENT  The meeting was adjourned at 4:16 p.m.

Respectfully submitted,

SHARON S. KOKUBUN
Secretary

APPROVED AS SUBMITTED:

RAE M. LOUI
Deputy Director
Chairperson and Members
Commission on Water Resource Management
State of Hawaii
Honolulu, Hawaii

Gentlemen:

Water Use Permit Applications
Koolauloa Ground Water Management Area, Oahu

Applicant: Campbell Estate
Landowner: Same

Amor Ikko (4157-09), Amor Pact 1 (4258-12), Amor Pact 2 (4258-13), Amor RCA 1 (4258-08), Amor RCA 2 (4258-14), Haw Mar Ent Clam (4157-10), Haw Mar Ent Ogo (4157-08), Kahuku Airbase (4158-12&13), Kawanakakane (4056-01), Malaekahana (3956-01), Pacific Sea 2 (4257-01), Pacific Sea 3 (4257-02), Palmer Golf Course (4100-01), Pump 1 (4057-01), Pump 2 (4159-01), Pump 5 (3957-07), Pump 6 (4057-06), Pump 7 (4057-07), Pump 12-A (4057-10), Pump 15 (4157-04), Punamanao (4159-02), Sugar Mill Pump (4057-11), T. Astro (4258-05), USFW 1 (4157-05), USFW 2 (4157-06), USFW 3 (4157-07)

Honolulu Board of Water Supply
Landowner: Same

Hauula (3655-01), Kahuku Battery (4057-15,16), Kahuanui (3554-04,05), Punaluu I (3553-02), Punaluu II (3553-03,04,06,07,08), Punaluu III (3453-06,07), Waialee I (4101-07), Waialee II (4101-08),

Hanohano Enterprises, Inc.
Landowner: Same

George N. Nihipali, Jr.
Landowner: Same
(Well No. 3855-12)

Jacob I. Kaio, Sr.
Landowner: Same
(Well No. 3956-07)
Chairperson and Members
Commission on Water Resource Management

December 8, 1993

Background

The Commission designated Windward Oahu and its corresponding aquifer systems as water management areas on May 5, 1992. All registered ground water users were notified of the official designation date of July 15, 1992, on which the Commission would begin to accept applications for existing water use permits. All water use permit applications in the Koolauloa Ground Water Management Area submitted to the Commission to date are shown in Exhibit 1. Existing water use permits in the management area are shown in Exhibit 2. Other specific information regarding the source, use, objections, and field investigation(s) are described in Attachment A and the other attached exhibits. Exhibit 5 shows well locations and reported pumpage information indexed by well number.

Analysis & Issues

Overall Koolauloa Ground Water Management Area Conditions

The major issue in the Koolauloa Ground Water Management Area is the appearance of an overallocation situation given the number of water use permit applications for existing uses (Exhibit 1). The sustainable yield of the Koolauloa Aquifer System is 35 million gallons per day (mgd) but as of November 29, 1993 Exhibit 1 shows a total demand of 67.433 mgd. However, of the total requested amount, 33.256 mgd is a more reasonable estimate of the requested existing demands on the aquifer and is calculated according to Table 1 as follows:

<table>
<thead>
<tr>
<th>Quantity (mgd)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>67.433</td>
<td>Total applications submitted (Exhibit 1).</td>
</tr>
<tr>
<td>+0.323</td>
<td>Total existing water use permits (Exhibit 2).</td>
</tr>
<tr>
<td>-1.000</td>
<td>Future use for BWS Kipapau Well No. 3655-03.</td>
</tr>
<tr>
<td>-33.500</td>
<td>Applications for salt water wells (limited effect on aquifer).</td>
</tr>
<tr>
<td>33.256</td>
<td>Reasonable estimate of existing aquifer uses from applications.</td>
</tr>
</tbody>
</table>

From this analysis, the overall allocation situation does not appear to be factual. The 33.256 mgd estimate is within the area’s estimated sustainable yield of 35 mgd. Additionally, the majority of applicants, Campbell Estate (CE) and Honolulu Board of Water Supply (BWS), have requested pump capacities rather than the actual 12 month moving average (12-MAV). The 1992 draft of the Oahu Water Management Plan (OWMP) estimated 1990 average actual use to be 13.6 mgd which would be well within the system’s sustainable yield. Staff has updated this actual use estimate with the 12-month moving average, as of September 1993, at approximately 4 mgd based on water use reports submitted to the Commission. A significant amount of pumpage is not reported at this time, much of it salt water, but staff is making efforts to have all active well owners comply.

The Native Hawaiian Advisory Council (NHAC) has requested an extended review period for all applications in this water management area and other aquifer systems (see Attachment C). Subsequent to this request, NHAC has submitted objections and declared that they represent at least thirteen (13) individuals throughout the Windward Side of Oahu (See Attachment D). The objections relate to the overall procedures of regulating water use through the existing water use permit process specified under §13-171, HAR. While staff realizes that the rules and code can be interpreted in many ways it will continue to process...
the applications in accordance with §13-171, HAR while being cognizant of general policies established through past Commission actions. NHAC has reserved the right to submit specific objections with the list of identified people NHAC represents at a later date. As such, no public hearing seems necessary at this time with regard to this objection.

Given the overall situation of the management area, staff sees no reason to delay action on the existing uses provides the following analysis for applications scheduled for action.

1. CAMPBELL ESTATE (CE) EXISTING USES - There are twenty-six (26) applications from CE in this management area for twenty-eight (28) wells. A number of different entities are using water but CE has come in as the applicant since they are the landowner. Wells which have been field verified as pumping salt water for various uses are listed in Table 2 as follows:

**TABLE 2.**
Campbell Estate Existing Salt Water Wells for Aquaculture

<table>
<thead>
<tr>
<th>Operator</th>
<th>Well No.</th>
<th>Requested mgd</th>
<th>Current 12-MAV mgd</th>
<th>Recommended Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hawaiian Marine Enterprises</td>
<td>4157-08</td>
<td>3,000 (m3)</td>
<td>0.433</td>
<td>Approve existing needs</td>
</tr>
<tr>
<td>Amorient lkoo</td>
<td>4157-09</td>
<td>7,000</td>
<td>No reports</td>
<td>Approve existing needs</td>
</tr>
<tr>
<td>Hawaiian Marine Enterprises</td>
<td>4157-10</td>
<td>3,000</td>
<td>0.144</td>
<td>SMA deferred</td>
</tr>
<tr>
<td>Pacific Sea Farms</td>
<td>4257-01</td>
<td>5,200</td>
<td>No reports</td>
<td>SMA deferred</td>
</tr>
<tr>
<td>Pacific Sea Farms</td>
<td>4257-02</td>
<td>3,700</td>
<td>No reports</td>
<td>SMA deferred</td>
</tr>
<tr>
<td>T. Astro</td>
<td>4258-05</td>
<td>5,000 (m3)</td>
<td>No reports</td>
<td>Approve existing needs</td>
</tr>
<tr>
<td>Amorient PACT 1</td>
<td>4258-08</td>
<td>0.300</td>
<td>No reports</td>
<td>Approve existing needs</td>
</tr>
<tr>
<td>Amorient PACT 1</td>
<td>4258-12</td>
<td>3,000</td>
<td>No reports</td>
<td>Approve existing needs</td>
</tr>
<tr>
<td>Amorient PACT 2</td>
<td>4258-13</td>
<td>1,200 (m3)</td>
<td>No reports</td>
<td>Approve existing needs</td>
</tr>
<tr>
<td>Amorient RCI</td>
<td>4258-14</td>
<td>0.300</td>
<td>No reports</td>
<td>Approve existing needs</td>
</tr>
</tbody>
</table>

*Note: Only 1 month of data supplied to Commission but verified through field investigation.
+
Note: based on recommendations of Aquacultural Development Program

The major issue with the salt-water applications listed in Table 2 is that actual use data is effectively non-existent. The applicant has indicated that they are compiling historic pumpage information but has not submitted any to date which is understandable since none of the wells in Table 2 were found to have any flow meters. Although staff believes that the salt water wells have a very limited effect on the freshwater portions of the aquifer (otherwise they would be brackish) these uses need to be permitted. Although it may be of questionable value to measure seawater pumpage, staff feels that accurate data may prove beneficial in the future. During staff review it became evident that the standard listed in the OWMP for aquaculture (36,000 gpd/acre) would not be appropriate for the uses listed based on acreage, especially since these uses are large scale. Additionally, the concern of discharge of the effluent is under review, but is being monitored by the Department of Health (DOH). Staff has been consulting with the State Aquacultural Development Program (ADP) as they are more experienced with aquaculture of this magnitude. ADP will be making recommendations to staff prior to the Commission meeting about reasonable amounts of salt water needed for these applications and the necessary measures taken to manage effluent discharges.
Additionally, the Mayor commented that the well(s) for Hawaiian Marine Enterprises (4157-10) and Pacific Sea Farms (4257-01&02) have been determined to reside in Special Management Areas (SMA), which would require SMA permitting. The Mayor asked that these applications be deferred until a SMA determination from DLU is completed.

Field verified wells for CE pumping non-salt water for various uses are listed in Table 3 as follows:

<table>
<thead>
<tr>
<th>Operator</th>
<th>Well No.</th>
<th>Requested mgd</th>
<th>Current 12-MAV mgd</th>
<th>Recommended Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaeakahana Domestic System</td>
<td>3956-01</td>
<td>0.100</td>
<td>0.042</td>
<td>Approve existing 12-MAV</td>
</tr>
<tr>
<td>Gunstock &amp; Puu Pains Ranch</td>
<td>3957-07</td>
<td>0.100</td>
<td>0.006</td>
<td>Approve existing 12-MAV</td>
</tr>
<tr>
<td>Kawananaoko Ranch</td>
<td>4056-01</td>
<td>1.000</td>
<td>0.576</td>
<td>Approve 400,000 gpd est.</td>
</tr>
<tr>
<td>Kahuku Farmers Assoc.</td>
<td>4057-01</td>
<td>1.500</td>
<td>0.307</td>
<td>Approve existing 12-MAV</td>
</tr>
<tr>
<td>Turf Farm &amp; Kahuku School</td>
<td>4057-06</td>
<td>0.500</td>
<td>0.287</td>
<td>Approve existing 12-MAV</td>
</tr>
<tr>
<td>Soukaseum &amp; Matsuda</td>
<td>4057-07</td>
<td>2.000</td>
<td>0.109</td>
<td>Approve existing 12-MAV</td>
</tr>
<tr>
<td>Kahuku Prawn Farm</td>
<td>4057-10</td>
<td>1.500</td>
<td>0.000</td>
<td>Approve 300,000 gpd est.</td>
</tr>
<tr>
<td>Sugar Mill Pump</td>
<td>4057-11</td>
<td>0.500</td>
<td>0.028</td>
<td>Approve existing 12-MAV</td>
</tr>
<tr>
<td>Palmer Golf Course</td>
<td>4100-01</td>
<td>0.800</td>
<td>0.206</td>
<td>Approve existing 12-MAV</td>
</tr>
<tr>
<td>Amorient &amp; US Army</td>
<td>4157-04</td>
<td>1.530</td>
<td>1.517</td>
<td>Approve existing 12-MAV</td>
</tr>
<tr>
<td>US Fish and Wildlife Serv.</td>
<td>4157-05</td>
<td>0.082</td>
<td>0.082</td>
<td>Approve existing 12-MAV</td>
</tr>
<tr>
<td>US Fish and Wildlife Serv.</td>
<td>4157-06</td>
<td>0.106</td>
<td>0.106</td>
<td>Approve existing 12-MAV</td>
</tr>
<tr>
<td>US Fish and Wildlife Serv.</td>
<td>4157-07</td>
<td>0.107</td>
<td>0.107</td>
<td>Approve existing 12-MAV</td>
</tr>
<tr>
<td>US Army, Airbase</td>
<td>4158-12&amp;13</td>
<td>0.500</td>
<td>0.103</td>
<td>Approve existing 12-MAV</td>
</tr>
<tr>
<td>Vietnamese Farmers</td>
<td>4159-01</td>
<td>3.000</td>
<td>0.814</td>
<td>Approve existing 12-MAV</td>
</tr>
<tr>
<td>US Army</td>
<td>4159-02</td>
<td>1.500</td>
<td>0.001</td>
<td>Approve existing 12-MAV</td>
</tr>
</tbody>
</table>

Note: unmetered estimate by applicant. 
++ Note: unmetered estimate by staff of existing use on 5/21/93.

The non-salt water requests and their specific issues are as follows (refer to Exhibit 5 for location and use information):

a. MALAEKAHANA DOMESTIC SYSTEM (Well No. 3956-01) - The well site was inspected and verified on May 21, 1993. It is designated by the DOH as "Community Water System 316" and is monitored monthly for quality by DOH. The system services approximately 100 individuals; for the Malaeakahana State Park 33 homes, and potable needs of Kawananaoko's Ranch.

The first issue is that there are possibly six (6) active well users within a mile radius of this well. Only one (1) is downgradient and is also owned by the applicant, but no water use permit application has been submitted. The other five (5) have applied for water use permits and are pending in this submittal. Considering the applicant's well has been in use
since 1975 and are so near to the ocean, any adverse impacts would already be in evidence. No downgradient user or other has filed an objection to this application.

The second issue is that the applicant’s request for 0.100 mgd is more than the existing use. The source is metered and the current 12-MAV is approximately 0.042 mgd based on almost two (2) years worth of data (See Exhibit 5). Additionally, 0.042 mgd seems rather high for the domestic needs based on county standards that 33 homes would require approximately 16,500 gpd plus the need of the transient people at the park and the ranch’s potable needs. One explanation is that the transient number of people using the park varies greatly. Finally, the OWMP estimated 1990 average use at 0.50 mgd. Staff is unsure why this amount is so high compared to figures provided directly to the Commission but prefers to use the lower reported values.

b. GUNSTOCK AND PUU PA’INA RANCHES (Well No. 3957-07) - The well site was inspected and verified on May 21 and October 28, 1993.

The first issue is that there are possibly three (3) active wells within a mile radius of this well. One is a privately owned source which has not come in for a water use permit and two (2) others are also owned by the applicant, both of which have water use permit applications pending in this submittal. Considering the applicant’s well has been in use since 1937 and the use is small (approximately 6,200 gpd), any adverse impacts would already be in evidence. No downgradient user has filed an objection to this application.

The second issue is that the applicant’s request for 0.100 mgd is more than the existing use. The source is metered and the current 12-MAV is approximately 6,200 gpd based on a year’s worth of data (See Exhibit 5). Apparently, this is enough to satisfy the applicant’s irrigation needs for 110 acres of pasture and about 240 head of livestock. From the OWMP, 110 acres of pasture would normally require an estimate of 0.044 mgd but the area is in a wet area of the island. The OWMP did not estimate the use from this well.

c. KAWANANAKOA RANCH (Well No. 4056-01) - The well site was inspected and verified on October 8, 1990. Telephone contact on October 5, 1993 verified that the only change in use was a decrease from 80 to 64 livestock.

The first issue is that there are possibly five (5) active wells users within a mile radius of this well. None of these wells are downgradient. Four (4) out of the five (5) wells have submitted water use permit applications which are pending and addressed in this submittal. The other well is a privately owned source which has not come in for a water use permit. Considering the applicant’s well is so close to the ocean, any adverse impacts would already be in evidence. No objections have been filed for this application.

The second issue is that the requested amount of 1.000 mgd is in excess of verified existing use. The field investigation verified use for 30-35 acres of pasture, 64 livestock, and 1/4 acre taro and watercress. Existing 12-MAV reported at 0.576 mgd but is not metered. The OWMP did not estimate use for this well. According to the OWMP the pasture and taro together would require approximately 0.141 mgd. Livestock and watercress are not mentioned in the OWMP but assuming 100 gpd/head of livestock and 1 mgd gpd/acre of watercress, this would boost the reasonable requirement to approximately 0.400 mgd. Considering that this is a wet area of the island, this estimated need should be more than adequate. The applicant has indicated that they will be increasing pasture acreage by 15 acres (0.060 mgd). The applicant may modify their permit when these additional fields are put into production.

d. PUMP 1 (Well No. 4057-01) - The well site was inspected and verified on October 8, 1990 and again on October 15, 1993. The first issue with this application is that neither the applicant nor staff can determine if the well is a single or battery of wells connected underground. Well nos. 4057-01, 02, 08, 13 & 14 have been registered by the Kahuku Farmers Association (KFA) but staff could not find any of them except this main source. It is suspected that the other wells are below the ground surface and may connect in battery the single well head found in the field. NHAC commented that these other wells in battery should be included in the application. Staff will continue to investigate the locations of the other wells under the registration program and amend the water use permit if necessary.
The second issue is that there are possibly five (5) active wells users within a mile radius of this well. None of these wells are downgradient. Four (4) out of the five (5) wells have submitted water use permit applications which are pending and addressed in this submittal. The other is a privately owned source which has not come in for a water use permit. Considering the applicant’s well is so close to the ocean and has been in use for some time, adverse impacts, if any, would already be in evidence. No objections have been filed for this application but NHAC has commented that the use affects Ki’i’i National Wildlife Refuge, an unnamed stream, and water rights. This would be more appropriately addressed if future increases in use are requested since these may bring about new impacts.

The third issue is that the requested amount of 1.500 mgd is in excess of verified existing use. The field investigation verified well the is used by KFA. The Association consists of 8 farmers to irrigate 215 acres of bananas, papayas, corn, etc., which is basically diversified agriculture. According to the OWMP diversified agriculture for 215 acres would require approximately 1.700 mgd. However, the metered average use over the past two years has been consistent and the current 12-MAV is 0.307 mgd as of 9/93. Also, the OWMP estimated use from the KFA at 0.32 mgd in 1990. The Mayor had commented that the existing use may be overstated and the actual metered use confirms this. NHAC commented that the applicant should also show infeasibility of using non-potable water sources. Although the Commission encourages the use of non-potable water for irrigation staff’s position is that this existing use is reasonable and within the area’s sustainable yield. Additionally, the type of non-potable water use over the basal source may put the potable quality of the area at risk.

A fourth issue is that a new State Ag Park use is not included in this figure but is a very near future use (early 1994). The State DOA is planning to open an additional 212 acres which will use an estimated 2 mgd for diversified agriculture. Pumps from the well to this project have already been tested but are not metered. Staff recommends that this future use come in with its own water use permit application.

e. PUMP 8 (Well No. 4057-06) - The well site was inspected on May 28, 1993.

The first issue is that there are possibly six (6) active wells within a mile radius of this well. Two (2) of the wells are offset but probably downgradient of well. Five (5) out of the six (6) wells have applied for water use permit. One is owned by a private individual who has not applied for water use permit. DAR had concerns about dewatering Malaekahana Stream with future increases but no objections were filed to this application.

The second issue is that the requested amount of 0.500 mgd is in excess of verified existing use. The Mayor commented that this application may be an overstated request. The field investigation found use by Southern Turf Nurseries for approximately 12 acres of turf. The source is metered and has a current 12-MAV of 0.030 mgd. The OWMP estimated 1990 use at 0.040 mgd and the OWMP estimates the need for 12 acres of turf to be 0.048 mgd. Therefore, actual metered use is lower than projected but reasonable considering use is on the wet windward side of the island.

The third issue is that Campbell Estate has an agreement with Kahuku High School to supply 0.100 mgd for irrigation. Currently, the State Department of Accounting and General Services (DAGS) is presently undergoing negotiations with CE for a water agreement. The well source is non-potable and the Kahuku Community Assoc. is having DAGS convert the high school irrigation to this non-potable source. The school’s lawns have been irrigated by BWS service up to this point. The problem is that this use will increase pumpage from the aquifer, which qualifies it as a new use from the aquifer’s perspective. Given the concerns of DAR the Commission may wish to defer action on the future portion rather than deny this use at this time given the reasonableness of the new use for non-potable irrigation of a school lawn.

f. PUMP 12 (Well No. 4057-07) - The well site was inspected on March 15, 1991 and May 21, 1993.

The first issue is that there are possibly seven (7) active wells within a mile radius of this well. Five (5) out of the seven (7) have applied for a water use permit and one is a private owner who has not applied for a permit. The other is a well owned by the applicant. Four (4) of these wells are downgradient but all are owned by the applicant. No objections
by other ground water users have been filed. DAR had concerns about dewatering of Malaekahana Stream but no other comments.

The second issue is that the requested amount of 2,000 mgd is in excess of verified existing use. The Mayor commented that this application may be an overstated request. The inspection found two major users: 1) a co-op under Mr. U. Soukaseum which is 210 acres of bananas, papayas, beans, etc. and 2) 65 acres for Melvin Matsuda for watermelons. Metered 12-MAV as of September 1993 is 0.109 mgd. The OWMP estimated 1990 use at 0.440 mgd. According to the OWMP the specified uses should require about 1.4 mgd if fully developed. Therefore, the applicant's request is too high.

The third issue is that NHAC commented that the applicant should show infeasibility of non-potable sources. Use will affect unnamed spring, unnamed stream, and water rights. Although the Commission encourages the use of non-potable water for irrigation, staff's position is that this existing use is reasonable and within the area's sustainable yield. Additionally, the type of non-potable water use over the basal source may be put the potable quality of the area at risk.

g. PUMP 12-A (Well No. 4057-10) - The well site was inspected on May 21, 1993. This well resides in the same location as Well No. 4057-07.

The first issue is that there are possibly seven (7) active wells within a mile radius of this well. Five (5) out of the seven (7) have applied for a water use permit, one is a private owner who has not applied for a permit, and the other is owned by the applicant. Four (4) of these wells are downgradient but all are owned by the applicant. No objections by other ground water users have been filed. DAR had concerns about dewatering of Malaekahana Stream but no other comments.

The second issue is that the requested amount of 1.500 mgd is may be in excess of the verified existing use. The Mayor commented that this application may be an overstated request. The field investigation found that the user, Kahuku Prawn Co., cultivates 25 acres of freshwater prawns and had recently signed a lease for an additional 23 acres. User was in the process of clearing the land for the future ponds. [The well is not metered and reports are not submitted to the Commission]. The applicant had indicated that they are asking the user to submit water use reports but they are not complying. The OWMP did not estimate 1990 use. According to the OWMP the existing 25 acres of aquaculture would require 0.900 mgd although staff would like to consider the input of ADP.

The third issue is that the user was actively doubling the existing use at the time of inspection. A total of 48 acres would require about 1.728 mgd for aquaculture. Given the facts that the user and applicant have known about the water reporting requirements, have chosen not to comply, and had actively pursued, by construction, increasing a significant portion of use during the establishment of existing uses, staff feels that this use should be considered a future use! As such, staff recommends the applicant submit another application for the 23 acres of aquaculture under future use.

h. SUGAR MILL PUMP (Well No. 4057-11) - The well site was inspected on May 21 & October 28, 1993.

The first issue with this application is that the well number assigned by the applicant is in error. There are five (5) wells within close proximity of each other and the original number assigned by the applicant was 4057-04. In staff's judgement, the well identified by the applicant is 4057-11. Investigation verified 60 acres of truck farm use by Vietnamese tenants. Additionally, Well No. 4057-03 is used for 3 acres of turf irrigation and has not been applied for. The other three (3) wells in the area are not in use although one used to be for fire protection. NHAC commented that other wells in the sugar mill pump battery should be combined in application and put out for public notice. Staff's field investigation shows that the applicant's original application is only in well no. error and that the Well No. 4057-03 should also come in with a water use permit application separately or amend this original application.

The second issue is that there are possibly six (6) active wells users within a mile radius of this well. None of these wells are downgradient. Five (5) out of the six (6) wells have submitted water use permit applications which are pending and addressed in this submittal. The other well is a privately owned source which has not come in for a water use
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permit. Considering the applicant's wells are close to the ocean, adverse impacts, if any, would already be in evidence. No objections have been filed for this application.

The third issue is that the requested amount is in excess of verified existing use. The Mayor commented that the application may be an overstated request. The current metered 12-MAV reported is 0.028 mgd. The OWMP did not estimate use for this well but the estimated demand for 60 acres of bananas would be 0.181 mgd. Actual usage is much less and may be explained by the higher rainfall on this windward area.

i. PALMER GOLF COURSE (Well No. 4100-01) - This existing source uses non-potable basal water for irrigation of 188 acres of Kuilima Golf Course. The only real issue with this application is the amount of water to be allocated. A field investigation on October 4, 1993 noted that only the front 9 holes of the 18-hole golf course is open to the public. Because of financial constraints, the other nine holes are being maintained at a minimal level. If all 18 holes were to be kept in premium condition, considerably more water than what is currently being used would be required.

The actual 12-month moving average withdrawal is 0.206 mgd as of September 1993. This is considerably less than the requested allocation of 0.800 mgd. Although monthly pumpage has varied, twelve-month moving average withdrawals have been steady at slightly over 0.200 mgd for the last ten months, although slightly declining from about 0.250 mgd as of December 1992. Because average use has been consistent for nearly a year, the current 12-month moving average withdrawal of 0.206 mgd seems to be a good estimate of the irrigation water requirement.

Although there are several other pumped wells within a mile of the well, none of these is located downgradient. The closest stream is Kawela Stream, which is located about half a mile from the well. Aquatic Resources commented that Kawela Stream is intermittent, generally dry, and does not support native freshwater species. Continued use should not result in unacceptable adverse impacts to other local wells, streams, and the aquifer.

The Office of the Mayor and BWS has commented that the amount of water requested may be overstated and should be adjusted based on actual use. These agencies also suggest that an alternative source of lesser quality should be used.

j. PUMP 15 (Well No. 4157-04) - The well site was inspected on April 1991, May 21 & September 1, 1993.

The first issue with this well is that there are possibly three (3) active wells within a mile of the well. Two (2) out of the three have applied for a water use permit. The other is a private owner who has not filed an application.

The second issue is that the requested amount of 1.5 mgd may exceed the actual pumpage. The Mayor commented that the application may be an overstated request. The inspection found that Amorient uses the well for 31 one-acre fresh water prawn ponds continuously supplied all day. Also, the US Army has an additional pump hooked-up to withdraw water for six (6) military offices. Amorient's use is not metered nor do they report. The Army does meter and report their use and their current 12-MAV is 0.017 mgd. Originally the application came in separately, 1.5 mgd for Amorient and 0.030 mgd for the Army. Staff recommended that these applications be combined since CE is the applicant. The OWMP estimated use from this well at 1.80 mgd in 1990. The OWMP estimates a reasonable use of about 1.120 mgd although staff would like to consider comments from ADP on the reasonableness of the use. Amorient estimates they use 1.5 mgd.

A third issue is that NHAC commented that the existing use will affect Ki'i National Wildlife Refuge and water rights. Since the use has been in place for several years impacts have probably already been felt. This should be more appropriately addressed if future increases in use are requested since these may bring about new impacts. Additionally, The Office of Hawaiian Affairs warned of a potential overuse situation in the aquifer system. This has been explained to them as was done at the beginning of this submittal.

k. US FISH & WILDLIFE SERVICE (Well Nos. 4157-05 to 07) - Three separate permit applications were submitted for three existing artesian sources drilled within about a 70-foot radius. The wells, which are located about half a mile inland near Kahuku, use water for habitat maintenance in a designated National Wildlife Refuge for endangered water birds.
A field investigation on August 27, 1993, verified the applicant’s existing use. It was also confirmed that the acreage listed on the permit applications is incorrect; total acreage is 101.936, not 101,936.

The wells flow by artesian flow into a central sump area by opening a valve, no meters or pumps are installed. Water use is estimated using the volumetric method. Use is seasonal, with more water being used during the winter months. Water availability is dependent on the height of the water table.

The total request for the three wells is 294,773 gpd. Monthly water use reports have not been submitted, and there is no means by which to verify the applicant’s estimated water needs. Another issue is that there are over thirty (30) wells within a mile of these wells, although no wells are located downgradient. However, the request is for a relatively small amount of water for a use that has been in existence for a number of years. Issuance of an interim water use permit requires that monthly water use be reported, and the allocation is subject to review and refinement based on these data. Also, because the wells are not pumped, other local wells should not be affected. Impacts to surface waters and the aquifer are not anticipated.

l. US ARMY (Well Nos. 4158-12 & 13) - The applicant submitted one permit application requesting use of 0.500 mgd of potable water from these two sources. From the field investigation on May 21, 1993, it was determined that one of these wells, Well No. 4158-13, is capped and is no longer in use. The requested quantity of 500,000 gpd is approximately the capacity of the pump installed in Well No. 4158-12.

The domestic water system, which uses water from the active source, has been in operation since 1941. The source supplies 15 service connections (mixed commercial and domestic users) and serves an estimated population of 75. Water is used for troop’s drinking water during maneuvers and domestic use in Kuleana homes. Small amounts of water are used by several aquacultural facilities, and the well also provides one water trough for 65 cattle (the rest of the animals’ drinking water needs is supplied by Well No. 4159-01, which has a pending permit application that includes this use).

Water use is metered and is reported on a monthly basis. Reported actual use indicates a 12-month moving average withdrawal of 0.103 mgd as of October 1993. Actual water use is therefore considerably less than the requested quantity of 0.500 mgd. Twelve-month moving average withdrawals have been steady at about 103,000 gpd for the previous five months. Therefore, an allocation of 0.103 mgd appears to be a reasonable amount to satisfy the applicant’s existing needs.

Both NHAC and the Office of Hawaiian Affairs (OHA) have commented that Campbell Estate use of water appears excessive. OHA also urges the Commission to halt Campbell’s water permits until rules and regulations for water permits are clearly spelled out in the upcoming State Water Code Review.

m. PUMP 2, FARMERS (Well No. 4159-01) - Field investigations conducted on May 21, 1993 and September 1, 1993 verified that non-potable water from this existing artesian source is currently being used by truck farms for drip and sprinkler irrigation of approximately 250 acres of bananas, papayas, and various vegetable crops. Some water is also used to supply drinking water for approximately 65 head of cattle and horses. The pasture in which the animals graze is not irrigated.

One issue concerning this application is the quantity of water to be allocated. The request is for 3 mgd for agricultural irrigation of 250 acres. Reported monthly water use has varied in the last 18 months from an average of 0.185 mgd to 1.269 mgd. The highest monthly water use reported during this period is less than half of the amount requested. Further, at full capacity, the pumps can only withdraw a maximum of 1.857 mgd. Therefore, it appears that the applicant’s request is too high. The 12-month moving average withdrawal is estimated to be about 0.814 mgd. This appears to be a more reasonable estimate of actual existing use. The Oahu Water Requirements Forecast for 250 acres of papaya is 1,250,000 gpd, while the forecast for the same number of acres in banana is about 0.750 mgd. The twelve-month moving average withdrawal falls within this range.

A second issue is the presence of springs and other pumped wells in the vicinity of the source; some of these are located downgradient. However, pumpage has decreased from
1992 levels; for the period January 1, 1992 through September 30, 1992, withdrawals averaged 1.84 mgd. Current pumpage is less than half of this. Therefore, interim instream flow standards, effective as of May 4, 1992, should not be affected by current rates of withdrawals. Unacceptable adverse impacts to other local wells and the aquifer are not anticipated. No specific objections have been filed for this application.

n. US ARMY (Well No. 4159-02) - A field investigation, conducted on September 1, 1993, verified that the only existing use of potable water from this existing source is for the domestic needs of two Kuleana homes. The application states that water is requested for use by two administrative facilities at the Punamano Air Force Station and for irrigation of 75 acres of pasture; however, it has been determined that this facility has been abandoned by the Air Force (although water had been used there up until last year). The field investigation also verified that no water is currently being used for irrigation purposes.

The requested amount, 1.5 mgd, greatly exceeds verified existing use. Although water use is not metered, the Army Dept. of Public Works, which operates this source, estimates that average use is about 1,200 gpd. This estimate is in line with the County Domestic Consumption Guidelines, which indicate an average daily demand of 500 gallons per single family residential unit on Oahu. Due to the aridity of the area, actual water use may be slightly higher than that suggested by the guidelines. Therefore, the estimate of 1,200 gpd is considered reasonable. Since this use is so small the applicant can be exempted from reporting month in accordance with the Commission’s September 16, 1992 action.

There are several springs in the vicinity of the source, one of which appears to be downgradient. There are also several wells located nearby. Six (6) of these wells are currently being used. However, because the quantity of water currently being used is very small, and pumpage has decreased in the last few years due to the closing of the air force facility, impacts to surface waters, other wells, and the aquifer are not anticipated.

The Office of the Mayor and the Board of Water Supply have commented that the amount requested in this application may be overstated and should be adjusted based on actual use.

NHAC has expressed their concern over the possible effects on interim instream flow standards and potential impacts on other existing legal uses of water. However, if a permit is granted for only the existing verified use, no impact is anticipated.

2. BWS EXISTING USES - The BWS has nine (9) applications for seventeen (17) wells in the Koolauloa Ground Water Management Area which have existing use. Generally, staff is recommending approval of current reported 12-MAV for each application, as summarized under Table 4. One issue regarding all BWS applications is the NHAC comments listed in Attachments C & D. The NHAC commented that all county zoning for end uses should be described and overall statistics for the windward system should be given. This would be a monumental task for both the applicant and staff to review. Instead, staff proposes that all municipal uses are reasonable and the current and existing 12-MAV for the BWS sources should cover existing municipal uses at this time. Future uses would require project information such as zoning and 4-year commitment to initiate and justify future use requests from BWS. This would be consistent with what has been done in other water management areas including the Pearl Harbor reallocation efforts.
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### TABLE 4. 
BWS Existing Water Wells

<table>
<thead>
<tr>
<th>Well No.</th>
<th>Requested mgd</th>
<th>9/93 12-MAV mgd</th>
<th>Field Checked</th>
<th>Recommended Action</th>
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<tr>
<td>3453-06 &amp; 07</td>
<td>1.250</td>
<td>1.339</td>
<td>Yes</td>
<td>Approve existing 12-MAV</td>
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<tr>
<td>3553-02</td>
<td>0.350</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3553-03,04 06 to 08</td>
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<td>4.618</td>
<td>Yes</td>
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</tr>
<tr>
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<td>*4.618</td>
<td>No</td>
<td>Defer until field checked</td>
</tr>
<tr>
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<td>1.093</td>
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</tr>
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</tr>
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<td>0.750</td>
<td>0.411</td>
<td>Yes</td>
<td>Approve existing 12-MAV</td>
</tr>
</tbody>
</table>

* In same battery of Punaluu III in row directly above.

Other issues regarding each source are as follows (refer to Exhibit 5 for location and use information):

a. **PUNALUU III (Well Nos. 3453-06 & 07)** - The wells sites were inspected and verified on October 19, 1993.  
The first issue is that there are two (2) active wells within a mile radius of these wells. One is for domestic use only and the other was granted a water use permit on September 1, 1993. Considering the applicant's wells have been in use since 1974, adverse impacts have already been made. Neither downgradient user has filed an objection to this application.  
The second issue is that the wells may have some impacts on Punaluu Stream. The Division of Aquatic Resources (DAR) did not make any comments on this application, but they did make comments on BWS's Punaluu II well field located further away from the stream. DAR commented that the Punaluu II battery of wells is located between two of the most valuable stream habitats for native biota, Punaluu and Kaluaunui Streams. Since wells have been in place since 1969 then impacts have already occurred. Any applications for new wells (or pumpage) in this area should seriously address this issue. Staff is assuming that these comments would also, apply to Punaluu III.  
The third issue with this application is that the BWS request for 1.250 mgd seems low compared to the current actual use. The 12-MAV (See Exhibit 5) for the past two (2) years shows that the request would be for the minimum 12-MAV. The current 12-MAV as of September 1993 is 1.339 mgd. This would appear closer to the maximum 12-MAV over the past 2 years for these wells. Also, compared to the OWMP figure of 1.000 mgd, the current 12-MAV seems reasonable.

b. **PUNALUU I (Well No. 3553-02)** - The well was not field verified. Wrong keys obtained to access.

c. **PUNALUU II (Well Nos. 3553-03,04, 06 to 08 & 3554-03)** - This major source of wells was investigated and verified on October 19, 1993 with the exception of Well No. 3554-03 (wrong keys to access).  
The first issue is there is one major user directly downgradient who has applied for a water use permit (Hanohano Enterprises, Inc.). Another user with an existing water use
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permit (see Exhibit 2) is within a mile of the well field. Since these BWS wells have been used since 1967 negative impacts would have been felt by these users. No objections from either user have been filed with the Commission.

The second issue is that these wells may have some impacts on Punaluu and Kaluanui Streams. DAR commented that the Punaluu II battery of wells is located between two of the most valuable stream habitats for native biota, Punaluu and Kaluanui Streams. Since wells have been in place since 1969, impacts have already occurred. Any applications for new wells (or pumpage) in this area should seriously address this issue.

The third issue is that the BWS request for 6,000 mgd for these wells seems high compared to the current actual use. The 12-MAV (See Exhibit 5) since July 1992 shows that the request would be for the maximum 12-MAV for the past 16 months. The current 12-MAV as of September 1993 is 4,618 mgd. This is also in relative agreement with the OWMP 1990 estimate of 4.51 mgd. Therefore, the current 12-MAV seems reasonable for existing use from this well.

d. KALUANUI (Well Nos. 3554-04 & 05) - The wells were not field verified. Wrong keys obtained to access.

e. HAUULA (Well No. 3655-01) - The well site was inspected and verified on October 19, 1993.

The first issue is that there are three (3) active wells within a mile radius of the well. No objections have been filed by these well owners and one, the most southern, received a water use permit in September 1993. Since the well is so close to the ocean, adverse affects to other wells and streams in the area should be minimal as aquifer leakage into the ocean is primarily affected.

The second issue is that the current 12-MAV deviates significantly from the rather constant trend prior to the summer of 1992 (see Exhibit 5). Also, the OWMP identifies this source as a producer of 0.25 mgd, which is the applicant’s request. Staff has requested reasons for this and BWS may explain reasons for this at the Commission meeting.

f. KAHUKU BATTERY (Well Nos. 4057-15 & 16) - The well site was inspected and verified on October 19, 1993.

The first issue is that there are possibly seven (7) active wells within a mile radius of the wells. Six (6) of these active wells have been filed by Campbell Estate for water use permits and one is to a private individual who has not filed for a water use permit. Since applicant’s wells have been active for over a decade, adverse impacts have already occurred. No objections to this application have been filed by the other well owners.

The second issue is that the BWS request for 1,000 mgd for these wells seems high compared to the current actual use (see Exhibit 5). The general trend in pumpage has been relatively constant since 1990 at roughly 0.55 mgd, which was the estimated use in the OWMP. The current 12-MAV is 0.546 mgd as of September 1993. Therefore, the current 12-MAV seems reasonable for existing use from this well.

g. WAIALEE I (Well No. 4101-07) - The well site was inspected and verified on October 19, 1993.

The first issue is that there are possibly two (2) other active wells owned by private individuals within a mile radius of the well. Neither has submitted applications nor objections to this application. One is downgradient of the applicant’s well but since the applicant’s well is near the ocean and has been in use since 1945, adverse impacts have already been felt. The other well has reported use in the OWMP but, again, has not submitted an application. Staff will be following up on this matter.

The second issue is that the BWS request for 0.500 mgd for these wells seems high compared to the current actual use (see Exhibit 5). The general trend in pumpage has been relatively constant only varying between 0.30 and 0.37 mgd since 1988. The OWMP estimated 1990 pumpage as 0.33 mgd and the current 12-MAV is 0.339 mgd as of September 1993. Therefore, the current 12-MAV seems reasonable for existing use from this well.
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h. WAIALEE II (Well No. 4101-08) - The well site was inspected and verified on October 19, 1993.

The first issue is the same as the first issue of the previous application since these wells are in close proximity.

The second issue is that the BWS request for 0.750 mgd for these wells seems high compared to the current actual use (see Exhibit 5). The general trend in pumpage has been relatively constant only varying between 0.40 and 0.47 mgd since 1988. The OWMP estimated 1990 pumpage at 0.46 mgd and the current 12-MAV is 0.411 mgd as of September 1993. Therefore, the current 12-MAV seems reasonable for existing use from this well although it is unusual that the use is at a low point even though should be near a peak since September is the end of the summer period of weather.

3. HANOHANO ENTERPRISES (Well No. 3553-01) - This application was field verified on October 4, 1993. No significant changes from the original registration field investigation on October 18, 1990 were found.

The first issue with this application is that the existing end use is less than that specified in the application. The application requested both existing and future use for 70 acres of aquaculture and 250 units of future elderly housing. The applicant currently has a total of about 12 acres of active aquaculture; 11.5 acres in aquaculture for mullet and tilapia; and less than 0.5 acres for live food and tropical fish cultivation. Actual use has not been reported to the Commission. Based on the Oahu Water Management Plan 12 acres of aquaculture would use approximately 0.432 mgd. The OWMP estimated the use at 0.70 mgd in 1990. Staff would like to consider comments from ADP in addition to the OWMP to make a better assessment of actual need of the aquaculture. Additionally, the BWS has commented that the requested amount may be in excess of the aquifer’s sustainable yield and that water should be recycled through ponds for more efficient use.

The second issue is that of effects on Punaluu Stream. Discharge from this use flows into Papakoko-Haleaha Stream and since this use has been ongoing for the last 10 years, the impacts have already been felt. DAR has commented that Punaluu Stream is one of the highest quality habitats for native species on Oahu. If requests are for future increases in pumpage then DAR has requested confirmation that flows into Punaluu Stream will not be impacted.

The third and hardest issue to resolve is the future use requested for the 250 unit elderly housing development. Such a development would reasonably require about 0.100 mgd according to county standards (250 x 400 gpd for multi-family low-rise). However, there is no zoning for this project. The applicant has been working with the State Department of Health (DOH) and the County Department of Housing and Community Development (DHCD) in obtaining a 201E exemption to normal zoning requirements for affordable housing. However, the applicant is caught in a catch-22 situation whereby the county has required the applicant to provide evidence that water will be available for this project yet the Commission will not approve future projects without appropriate county zoning. Staff has informed the county of the overall situation of the Koolauloa Aquifer System and that it appears water may be available as early as January 1994 if other existing uses are established by the Commission. The applicant has indicated that they are willing to cutback on their existing aquaculture water use to make water available for their project, if necessary. Since the project is for the beneficial use of affordable housing, the applicant is seeking a special 201E exemption from zoning requirements, comments from DAR and BWS, and the existing use impacts are probably established in the area, staff does not foresee a problem allowing this special case to use a future use within the existing use limits. However, staff also realizes that if the Commission were to approve a permit allowing future use in this manner it may be construed as “water-banking” the ground water by a private entity.

4. NIHIPALI (Well No. 3855-12) - This application requires a field investigation.

5. KAIO (Well No. 3956-07) - This application was originally verified from a field investigation on October 10, 1990. No significant changes in the existing portion of the request were found. However, the applicant does include a future use request.
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The first issue with this applicant is that the requested amount of water for the existing use is high. The field investigation found water consumption on a total of 0.5 acre for taro, banana, and ti leaf, livestock, and one (1) tank of tilapia. No reports of water use have been made by the applicant making it difficult to estimate actual use and need. However, the 1990 field investigation measured flow from the artesian source at 12 gpm or 17,280 gpd. Assuming taro to be the most water intensive cultivation, the Oahu Water Management Plan for 0.5 acres of taro would require 3,000 gpd. Additionally, the field investigation found that the tank with tilapia required an additional 3,000 gpd. Assuming the needs of the few livestock does not exceed 1,000 gpd, the justified need under existing conditions would be about 7,000 gpd.

The second issue is that part of the request is for future uses for Kaio Flowers I & II. The total acreage of these future uses will be about another 0.5 acre for various floriculture. Under the Oahu Water Management Plan this future need would require an additional 3,700 gpd. Since this is such a small use, staff does not see a reason to deny the applicant’s request but rather suggests deferral on the future use portion until existing uses are established in the area.

RECOMMENDATION

Staff recommends:

1. For all approved water use permits, that the Commission add the special condition that the applicants may continue their existing use of ground water within the limits approved by the Commission, and the actual issuance for the interim permit shall not be a reason to interrupt their existing uses.

2. That the Commission approve the issuance of interim water use permits to the Estate of James Campbell for the reasonable and beneficial existing salt water aquacultural needs according to Table 2 and their corresponding described uses subject to the standard water use permit conditions listed in Attachment B.

3. That the Commission approve the issuance of interim water use permits to the Estate of James Campbell for the reasonable and beneficial existing needs according to Table 3 and their corresponding described uses subject to the standard water use permit conditions listed in Attachment B.

4. That the Commission approve the issuance of interim water use permits to the Honolulu Board of Water Supply for the reasonable and beneficial existing municipal uses according to Table 4, subject to the standard water use permit conditions listed in Attachment B.

5. That the Commission approve the issuance of an interim water use permit to Hanohano Enterprises, Inc. for the reasonable and beneficial use of 432,000 gallons per day of potable water for aquaculture over 12 acres from the Hanohano Well (Well No. 3553-01), subject to the standard water use permit conditions listed in Attachment B and the following special condition:

   a. 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 2.
That the Commission defer action on the water use permit application for George N. Nihipali, Jr. for the Nihipali Well (Well No. 3855-12).

That the Commission approve the issuance of an interim water use permit to Jacob I. Kaio, Sr. for the reasonable and beneficial use of 4,000 gallons per day of potable water for agricultural irrigation from the Kaio Artesian Well (Well No. 3956-07), subject to the standard water use permit conditions listed in Attachment B and the following special condition:

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

Respectfully submitted,

RAE M. LOUI
Deputy Director

APPROVED FOR SUBMITTAL:

KEITH W. AHUE, Chairperson
**WATER USE PERMIT DETAILED INFORMATION**

**Source Information**

**AQUIFER:**
- **Sustainable Yield:**
- **Existing Water Use Permits:**
  - **Available Allocation:**
- **Total of other pending allocations:**
  - **Koolauloa System, Windward Sector, Oahu**
  - **35 mgd**
  - **0.323 mgd**
  - **34.677 mgd**
  - **67.433 mgd**

**WELL INDEX INFORMATION**

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**ATTACHMENT A**
Use Information

See Exhibit 3 for individual applications use descriptions.

Nearby Surrounding Wells and Other Registered Ground Water Use

Information from the registration program indicates there are possibly 84 existing wells in the Koolauloa Aquifer System. Several of these wells have been initially field checked but many of the declarants, including the larger users, have not been completely field verified. Several are not in use or are rights claims. However, the Oahu Water Management Plan estimated that the existing withdrawals from the Koolauloa Aquifer System is 13.6 mgd as of 1990.

See attached exhibits as referenced from following table.

Public Notice

See Exhibit 1.

Objections

Specific objections or comments are identified under analysis and issues portion of this submittal. The public notice specifies that an objector must meet the following requirements: (1) state property or other interest in the matter; (2) set forth questions of procedure, fact, law, or policy, to which objections are taken; (3) state all grounds for objections to the proposed permits, (4) provide a copy of the objection letter(s) to the applicant, and (5) submit objections meeting the previous requirements to the Commission according to Exhibit 1. General objections from the Native Hawaiian Advisory Council are listed in Attachment C.

Briefs in Support

Responses to objections, or briefs in support, regarding the application are required to be filed with the Commission ten (10) days after an objection is filed and, presumably, copies are served to the applicant. No briefs in support were filed with the Commission. The following briefs in support are summarized as follows:

Field Investigation

See Exhibit 4.
STANDARD WATER USE PERMIT CONDITIONS

1. The ground water described in the water use permit may only be taken from the location described, used for the reasonable-beneficial use described, and at the location described above and in the attachments. Reasonable-beneficial use means "the use of water in such a quantity as is necessary for economic and efficient utilization, for a purpose, and in a manner which is not wasteful and is both reasonable and consistent with the state and county land use plans and the public interest." (HAR §13-171-2).

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 HAR §13-171-13 which means that it:
   a. Can be accommodated with the available water source;
   b. Is a reasonable-beneficial use as defined in section §13-171-2;
   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 174C-101(a), HRS.

4. The ground water use approved must not interfere with surface or ground water rights or reservations.

5. The ground water use approved must not interfere with interim or permanent instream flow standards or policies as determined by the Commission. 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 permit is subject to the requirements of the Hawaiian Homes Commission Act, as amended, if applicable.

7. The water use permit application and staff submittal approved by the Commission at its December 8, 1993 meeting are incorporated into the permit by reference.

8. Any modification of the permit terms, conditions, or uses can only be made with the express written consent of the Commission on Water Resource Management.

9. The water use 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 water sources in quantity, quality, or both;
   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 Homes, if applicable; or
   g. Carry out such other necessary and proper exercise of the State’s and the Commissions’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. 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.

11. 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;

12. The water use permit shall be subject to the Commission's periodic review of the applicable aquifer's sustainable yield. The amount of ground water use authorized by the permit may be reduced by the Commission if the sustainable yield of the Koolauloa Aquifer System, or relevant modified aquifer, is reduced;

13. The water use permit may not be transferred or the use rights granted by this permit sold or in any other way alienated. Pursuant to HAR §13-171-25 and the requirements of Chapter 174C, the Commission has the authority to allow the transfer of the permit and the use rights granted by the permit in a manner consistent with HAR §13-171-25. 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.

14. The use(s) authorized by law and by the water use permit do not constitute ownership rights.

15. The permittee shall comply with all applicable laws, rules, ordinances, and other agencies' permits and conditions pertaining to water use or the water resource.

16. The permittee shall prepare and submit a water shortage plan within 30 days of issuance of the permit to assist the Commission in fulfilling 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 Koolauloa Ground Water Management Area.

17. The water use permit granted shall be an interim water use permit, pursuant to HAR §13-171-21. The final determination of the water use quantity shall be made within five years of the filing of the application to continue the existing use.

18. The water use permit shall be issued only after AG review.

19. The water use permit shall be subject to the Commission's establishment of instream standards and policies to Stream Protection and Management (SPAM), as well as legislative mandates to protect stream resources.
MEMORANDUM

TO: Rae M. Loui, Deputy Director

FROM: David L. Martin, Water Project Manager
Native Hawaiian Advisory Council


DATE: November 26, 1993

NHAC hereby requests additional information from COWRM and the Board of Water Supply (BWS) explaining various sections of the Board's water use permit applications. These sections include 1(b) Landowner, 8 Quantity of Water Requested, and 15(a) Impact on sustainable yield.

1(b) LANDOWNER - Please provide a list of subject BWS well sites which were obtained from State lands via executive orders including the title status of those State lands.

8 QUANTITY OF WATER REQUESTED - Please provide information showing the amount of water quantity requested in relation to the 12 month moving average and the 5 year average use.

15(a) IMPACT ON SUSTAINABLE YIELD - Please provide information comparing the total existing, planned and proposed uses of water with the sustainable yield of each aquifer.

Please note that I have attached all memoranda forms dated October 27, 1993 covering BWS's permit applications. At this point I am unable to complete a review of these applications without additional information, therefore I am requesting an extended review period. Your immediate attention with this matter is appreciated, I await your response.

ATTACHMENT C
1993 November 26

TO: State of Hawaii Commission on Water Resource Management
SUBJECT: COMMENTS AND OBJECTIONS RE: WATER USE PERMIT APPLICATIONS
WAIMANALO, Koolaupoko, Kahana, and Koolauloa Ground Water
Management Areas
Public Notice Undated, Published November 3 & 10, 1993
Send written objections by November 26, 1993

I. COMMENTS

a. Hanohano Well No. 3553-01

4. SOURCE TYPE is not indicated.

10. PROPOSED USE: Irrigation is not indicated.

14. POTENTIAL RESTRICTIONS ON WATER USE:

(e) Other: Since COWRM may only allocate water to projects
which have received the necessary land use, county, and community
plan approvals, the application form should include a table
allowing applicants to illustrate their degree of compliance with
these requirements.

15. REMARKS, EXPLANATIONS: A table illustrating the estimated
breakdown between quantities of existing and new water use among
agriculture, aquaculture, and domestic should be provided.

TABLE 1. MULTIPLE TMKS TO USE REQUESTED WATER

The final column, "% OF TOTAL TO BE USED OVER NEXT 4 YEARS," should
be revised for accuracy.

b. EMS Applications

7.(c) County Zoning is not described.

10. QUALITY OF WATER REQUESTED: Potable is not indicated on some
applications.

11. PROPOSED USE: Municipal is not indicated.

12. NUMBER AND TYPE OF UNITS TO BE SERVED: Statistics for the
Windward Oahu System should be given.
II. OBJECTIONS

Native Hawaiian Advisory Council, Inc. (NHAC) represents persons with property interests in lands within the hydrologic units of the sources of water supply and/or who will be directly and immediately affected by the proposed water uses. Furthermore, NHAC advocates the enforcement of constitutional, statutory, and common laws which require consideration and accommodation of various appurtenant, riparian, correlative, and Hawaiian water rights, as well as other Hawaiian rights, in the Water Commission's (COWRM) allocation process. Under the public trust doctrine imposed upon Hawaii water law by the State Constitution, common law, and judicial precedent, water resources are owned by the public. Thus all people have property interests in all water sources and may be admitted to any and all proceedings involving their disposition, regulation, and management.

a. The following table identifies selected NHAC clients with property and other interests (distinct from those of the general public) in the subject water management areas on whose behalf subsequent general and specific objections are filed. NHAC reserves the rights to amend this table to later include other affected clients.

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<td>Koolaupoko stream</td>
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</tr>
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</table>
b. General Objections to All Permit Applications

(1) Property or Other Interest in the Matter

Refer to Table in II.a. above.

(2) Questions to which Objections are Taken

(a) Questions of Procedure

NHAC objects to COWRM's apparent plan to process water use permits applications on a first-come, first-served basis. In order to fulfill the legislative intent of water management area designation, a comprehensive view of existing, planned, and proposed water uses and water rights in each hydrologic unit is required. COWRM should merely collect applications during the one year post-designation application period. Then after the application period is closed, and surveys of water rights and reserved water uses are completed, COWRM can assess and evaluate each permit application with regard to competing applications for existing and new uses; reserved, declared, and certified water uses; instream flow standards; water rights; and the overall water situation in each hydrologic unit. Without such a process, COWRM will not be able to meet Water Code requirements for evaluating competing uses within the frameworks of the "reasonable and beneficial" standard, "Public interest," and other legally-imposed constraints.

In response to COWRM's letter of November 17, 1992, we further studied Hawaii Administrative Rules (HAR) Title 13, Chapter 171 and still find no explicit or implicit language supporting your contention that processing water use permits as we suggest is inconsistent with these rules or would require rulemaking. NHAC attended "... numerous Commission presentations and workshops on existing WMAs and the newly designated WMAs at which we [COWRM]
presented and provided various handouts which show the WUPA processing procedure" (emphasis added). To our knowledge COWRM never formally adopted as policy any of the various procedures it now employs in water use permit application processing. The rules are vague, ambiguous, and incomplete - in this context it seems that COWRM creation of different policies for different WMAs is inappropriate. It seems that hearings are required to discuss clarification and of the rules and unification of the policies.

Two distinct classes of WMAs will emerge if COWRM proceeds on a first-come, first-served basis in some WMAs and with a comprehensive management review of all uses and applications in other WMAs. In the first case, determination of whether competing WUPAs exceed the available supply becomes a second tier of the designation process. NHAC believes such a management regime requires rulemaking. Granting WUPAs on a first-come, first-served basis circumvents a number of the conditions for Water Use Permit issuance, particularly if specific reservations for Hawaiian Homelands beneficiaries are not previously implemented and allocations to county boards of water supply for municipal purposes are not established.

While NHAC recognizes there is a rule that COWRM act upon permit applications within 90 or 180 days [HAR 13-171-19(c)] we do not see this as a constraint to the approach we are suggesting. COWRM records over the last six years shows that "action" includes deferral of decision making until information needs are met, as well as categorization of applications to facilitate future decision making.

(b) Questions of Fact

The permit application information distributed by COWRM for comment should also include the results of COWRM's field verification of declared water uses and should compare the quantity of water requested with the current 12 month moving average and the post-Water Code long-term (about 6 year) average water use. It should also show how total applicant existing, planned, and proposed water uses in the subject WMA compare with overall WMA totals and with sustainable yield. This factual information is critical in comprehensively evaluating reasonable and beneficial use and public interest in the WMA. This information, which is usually not presented by COWRM until the decision-making stage of the process, must be available earlier so that public comment and objection can take it into account.

(c) Questions of Law

COWRM appears not to be in compliance with HAR 13-171-11(b), which implies that COWRM will determine water supply allocated to the county boards of water supply in each water management area. These gross allocations to the counties, as well as gross reservations to
Hawaiian Home Lands (required under Act 325), must be defined prior to any new water use permitting to other parties.

In a previous response to this objection, COWRM (March 3, 1993) stated that "... allocations granted to the county water systems generally allow the county departments of water supply to distribute water within their system and within the limits imposed by allocation. This does not imply that the Commission will or must determine the final and gross water amounts to be allocated to the county water supplies." This reasoning seems confused - if COWRM is the agency responsible for "the limits imposed by allocation," then it should "determine the final and gross water amounts to be allocated to county water supplies."

Further analysis of HAR 13-171 reveals that:

1. Permit applications for existing uses only compete with other permit applications for existing uses [HAR 13-171-14(c)].

2. Competition between permit applications for existing uses is subject to public hearing requirements [HAR 13-171-14(c)], while competition between permit applications for new uses is not (HAR 13-171-16). For existing uses, the allocation between competing applications is determined via the hearing, while for new uses the allocation seems to be subject to dispute resolution and public interest balancing tests. The rules are silent about competition between permit applications for existing uses, new uses, declared uses, certified uses, water reservations, and instream flows.

3. Existing uses are assumed reasonable if less than 25,000 gallons per month. If more than 25,000, it is still reasonable and beneficial if no objections are filed [HAR 13-171-14(b)], but is subject to public hearing if objections are raised. Reasonable and beneficial is only one of the 6 things the applicant must establish under HAR 13-171-13, which all apply equally to existing and new users.

4. There appear to be no guidelines for reasonable and beneficial determinations of new uses, no requirements for public hearing regarding same, and no vehicle for requesting such public hearing.

The existing rules do not appear to place any restrictions on simultaneous processing of applications for existing and new ground water uses, along with certification of declared surface water uses. They do not expressly disallow direct consideration of applications for existing ground water uses within the context of new ground water uses and declared surface water uses, even though some different procedures apply. The inclusion of "public interest" consistency requirements [HAR 13-171-13(4)] seems to give COWRM enough latitude for such processing, notwithstanding other intricacies of rule.
(d) Questions of Policy

1. Procedure

We have been repeatedly told by the Attorney General that water management area designation creates a "clean slate" and a "level playing field." As such, from the moment of designation we cannot consider any existing water use to be reasonable and beneficial or in the public interest until such determinations are formally made by the Water Commission.

The procedure being followed in Windward Oahu and Molokai WMA is inconsistent with that employed in Pearl Harbor WMA. This is confirmed in COWRM's letter of March 3, 1993 which explains that "In its February 17, 1993 decision regarding Molokai and Windward water use applications, the Commission on Water Resource Management will defer action on all new water use permit applications until July 1993" (implying that applications for existing uses will be processed first and separately). "In the Pearl Harbor area, the Commission is reviewing all currently filed requests together: existing, planned, and proposed uses." COWRM has not explained why the policies are different in different WMAs.

Given the vagueness of the administrative rules governing the process, COWRM should provide a clear explanation for these differing policies. Also note that neither of the two procedures described above considers other issues water rights, water reservation, instream flow, and certification of declared surface water uses discussed on our objections. COWRM has not explained why these issues should not be comprehensively considered in ground water use permit application processing.

On March 3, 1993 COWRM also wrote that "... a survey of all water rights and reservation issues cannot be settled fairly or adequately within such a short time period. Because of this, the Commission plans to include conditions in water use permits which will expressly allow for quantity reduction in permits if and when it may be required."

The resolution of water rights and reservations and other issues must not be held hostage to a perceived need to issue permits for existing water uses. Now is the proper stage in the process for examining trade-offs between existing ground water uses, water rights, water reservations, surface water uses, instream flows, and streamflow restoration. To further postpone such examination merely continues the entrenched water allocation policies that the Water Code seeks to avoid, and unnecessarily multiplies the number of proceedings which must be held in the future to deliberate downsizing of existing uses to accommodate new uses.
2. Public Notice

We question if all water use declarants, water source registrants, and water use permit applicants in the affected areas have been served direct notice of the pending applications and the deadline for filing objections? Without such notice, these persons cannot be expected to have timely knowledge of pending applications, much less file timely objections. The Water Commission, through its Nakata Subcommittee, has acknowledged this reality and recommended implementation of a process for direct notification of affected parties.

In previously responding to similar concerns, Rae M. Loui wrote on August 12, 1993 that "The Nakata subcommittee did not recommend notices be sent to all nearby declarants." We recall that the subcommittee did recommend that registries of declarants placed in various categories be maintained, and reason that a logical cause of the need for such maintenance is to allow the Commission to easily identify declarants using and/or claiming interests in various water sources. Once declarants are identified, it is only fair that they be directly notified of proposed actions potentially affecting their interests.

Mrs. Loui also wrote that "... given the 200+ permits we have pending and the lack of computer programming to easily identify nearby declarants, it would be unmanageable." "These are my thoughts only and do not represent the policy of the Commission."

With regard to the 200+ permits, in many cases numerous permit applications have been filed by a single applicant in a single water management area, so that individual notices for each of these numerous applications could be combined into a single notice. Also, if COWRM would adopt our recommendation for a finite, repeating application window, notification tasks would be more easily accomplished.

COWRM's existing WATROAT database has the capability to be programmed to easily identify nearby declarants. The major task remaining is to allow sorting and cross-indexing (ground & surface water) of records by water source rather than by declarant name or TMK number. NHAC rejects COWRM arguments that the notification requirements we recommend are "unmanageable," and suggest that COWRM place a high priority on implementing the necessary computer programming, preferably of a type which allows integration with the State GIS framework. NHAC is available to assist with this work.
3. Public Comment and Objection

There are persistent ambiguities and inconsistencies concerning the procedures and deadlines for filing comments on and objections to water use permit applications which must be resolved in order to institute a clear and fair process.

a. HAR 13-171-18

(a) "Within ten working days after the last public notice of the pending permit application, a party may file with the commission, written objections to the proposed permit and a brief in support of such objections."

This implies that in order to be valid, objections must be received at COWRM on or before the tenth working day after the last public notice.

"Such party shall serve copies of the objections and brief upon the applicant."

This does not specify when the applicant must be served.

(d) "The support brief shall:
(1) Answer specifically the points of procedure, fact, law, or policy to which objections were taken; and
(2) State the facts and reasons why the permit should be approved."

This conflicts with (a), which implies that briefs are to be written in support of objections, not in support of applications [as suggested in (d).]

b. Public Notice

The standard Public Notice of water use permit applications directs that interested persons "Send written objections by" a specific date (the tenth day after the last public notice) to COWRM and the applicant. This implies that objections should exhibit a postmark or other evidence of being "sent" on or before that date.

c. COWRM Review and Comment Solicitation

The standard memorandum circulated by COWRM with water use permit applications requests ("please") that a form indicating the level of review of the application be returned by a specific date (ten working days after the last public notice), implying that the form should be received at the COWRM office on or before that date. While the form has a space for indicating "no objections," it has no space for indicating "Objections attached."
This form does not appear to be the subject of any rule, nor does it appear to establish a strict deadline for returning the form. In particular, it allows a reviewer to request additional information and an extended review period for a particular water use permit application. In practice, COWRM could receive a form requesting additional information and an extended review period on the same day that the Public Notice established as the deadline for sending (evidenced by postmark or other evidence of initiating transmittal) objections and that HAR established as the deadline for filing objections at COWRM (evidenced by receipt at COWRM). Yet there appear to be no COWRM procedures for responding to requests for extended review, much less for notifying applicants and other interested parties if these requests are indeed granted.

3. Regulatory and Management Coordination

We are increasingly concerned about the lack of clear guidelines for timing, sequencing, and coordinating COWRM permitting processes with environmental review processes conducted under other authorities (including HRS 343, BLNR Conservation District Use permitting, DOH 401 and NPDES, and County grading and drainage ordinances).

(3) Grounds for Objections to Proposed Permits

As evidenced by the above discussions, proposed permits should be deferred until the conclusion of public hearings because:

1. COWRM procedure for processing the permit applications is not in compliance with the Water Code and its Administrative Rules.

2. COWRM has not provided adequate factual background for public review of, comment upon, and objection to the proposed permits.

3. Laws governing permit application processing are vague, contradictory, and incomplete.

4. COWRM policy governing permit application processing is vague, contradictory, inconsistent, incomplete, and excessively informal.

5. Current COWRM policy and procedure does not promote or allow for comprehensive, conjunctive, and concurrent processing of water use permit applications, water use declarations, instream flow standard and sustainable yield concerns, and water rights and water reservation issues.
c. General Objections to BWS Permit Applications

(1) Property or Other Interest in the Matter

Refer to Table in II.a. above.

(2) Questions to which Objections are Taken

(a) Questions of Procedure

Refer to b.(2)(a) above.

The procedure employed in processing this batch of BWS permit applications is inexplicably different from that previously employed in Pearl Harbor GWMA. COWRM has a duty to coordinate ground water use permitting with surface water use certification, instream flow standard and sustainable yield reevaluation, and water rights and water reservation determinations.

(b) Questions of Fact

Refer to b.(2)(b) above.

Permit application line 1.(b) consistently indicates BWS as "LANDOWNER OF SOURCE." It has been common procedure for BWS to acquire well sites through set aside of State lands by executive order. NHAC has requested in a separate letter that additional information on the title history of each well site be provided so that we can determine which well sites occupy ceded lands.

(c) Questions of Law

Refer to b.(2)(c) above.

NHAC alleges that the practice of transferring ceded lands to BWS by executive order subverts and circumvents the water licensing requirements of HRS, in some cases avoiding necessary compensation to the Hawaiian Homes Commission and Office of Hawaiian Affairs for use of ceded lands trust resources.

(d) Questions of Policy

Refer to b.(2)(d) and c.(2)(b) above.

(3) Grounds for Objections to Proposed Permits

1. All of the subject BWS applications indicate on line 15(c) that applicant does not know if its existing uses affect Hawaiian Home Lands uses. Therefore applicant has not established that these proposed uses of water conform with the requirements of HAR 13-171-13 (1)-(5) and will not affect Hawaiian Home Lands uses.
Thus COWRM may not issue permits until public hearings are held to determine what portion, if any, of existing BWS uses should be abandoned in favor of Hawaiian Home Lands uses.

2. All of the subject BWS applications fail to describe potential restrictions on use arising from effects on future legal uses such as planned agricultural uses and activation of uses guaranteed by appurtenant, riparian, and correlative water rights. Therefore applicant has not established that these proposed uses of water conform with HAR 13-171-13 (1), (2), and (4)-(6), and COWRM may not issue permits until public hearings are held to determine what portion, if any, of existing BWS uses should be abandoned in favor of future legal uses.

3. All of the subject BWS applications indicate on Line 15.(a) that "Impact on Sustainable yield" is that of an "Existing use." Existing uses do impact sustainable yield characteristics, notably the lowering of equilibrium head arising from increased sustainable yield. Because of the "clean slate" and "level playing field" effect of designation, COWRM may not issue water use permits until public hearings are held to assess the impacts of changes in sustainable yield upon equilibrium heads and localized water levels, and to determine what portion, if any, of existing BWS uses should be abandoned in favor of lowering sustainable yields.

4. Any number of the subject BWS applications may involve water sources sited on ceded lands that were transferred by executive order from the State to BWS. Wherever this is the case, COWRM may not issue water use permits until public hearings are held concerning the avoidance of water licensing requirements and lack of County compensation to the Hawaiian Homes Commission and OHA for its use and extraction of ceded lands trust resources.

5. None of the subject BWS applications indicate how total existing, planned, and proposed BWS uses compare with other existing, planned, and proposed uses and sustainable yields. Such information is critical to complete and fair assessment of compliance with water use permit conditions set forth in HAR 13-171-13. Thus COWRM may not issue permits until hearings are held to determine overall water use permit application and planning situation for each aquifer, and to assess what shares of their sustainable yields could be allocated to BWS and other major water users.

d. Specific Objections to Specific Applications

(1) Property or Other Interest in the Matter

Refer to Table in II.a. above.
(2) Questions to which Objections are Taken

(a) Questions of Procedure
Refer to b. and c.(2)(a) above.

(b) Questions of Fact
Refer to b. and c.(2)(b) above.

WAIMANALO TUNNELS

We believe that portions of the tunnels may be situated on and/or underly Hawaiian Home Lands. We are not aware of any agreements between BWS and HHC governing BWS use of the sites and resources.

WAIHEE WELLS

Line 16 of the application states that the well "Has not operated since court mandated flow of 2.7 MGC in Waihee Stream under appeal." This contradicts Line 15(a) of the application and the Public Notice which indicate existing use. When exactly did use of this source cease?

(c) Questions of Law
Refer to b. and c.(2)(c) above.

(d) Questions of Policy
Refer to b. and c.(2)(d) above.

(3) Grounds for Objections to Proposed Permits

1. In Ko'olaupoko GWMA, the following BWS applications indicate on line 15.(b) that BWS existing uses affect instream flow standards:

Luluku Tunnel, Haiku Tunnel, Haiku Well, Kahaluu Tunnel, Waihee Tunnel, Waihee Inclined Wells, Waihee Wells.

Therefore applicant has not established that these proposed uses of water conform with the requirements of HAR 13-171-13 (1)-(4), and COWRM may not issue water use permits until public hearings are held to determine what portions, if any, of existing BWS uses should be restored to instream flows.
2. In Koʻolaupoko GWMA, the following BWS applications indicate on line 15.(d) that BWS existing uses affect other existing legal uses:

Haiku Tunnel, Waihee Tunnel, Waihee Inclined Wells, Waihee Wells.

The following BWS applications indicate on line 15.(d) that applicant does not know if BWS existing uses affect other existing legal uses:

Luluku Tunnel.

Therefore applicant has not established that these proposed uses of water conform with the requirements of HAR 13-171-13 (1)-(4), and COWRM may not issue water use permits until public hearings are held to determine what portions, if any, of existing BWS uses should be abandoned in favor of other existing legal uses.

3. If portions of the Waimanalo tunnels are sited on or underlay Hawaiian Home Lands, and no agreements exist between BWS and HHL concerning site use and resource extraction, then a water use permit should not issued until public hearings are held and the land use situation is resolved.

4. If Waihee Wells has not been used since the 1989 deadline for filing declarations of water use, a water use permit may not be issued until the application has been reprocessed as an application for a new use.

III. SUMMARY

While COWRM, staff, and the public have participated in discussions about water use permit application processing, there have been no formal declarations of COWRM permit application processing policy, and different procedures are being applied in different WMAs. It appears that COWRM staff and NHAC are advocating different interpretations of the Administrative Rules governing the water use permitting process, and that public hearings are needed to help the Commissioners decide what kind of interpretation best serves the purposes of the Water Code and the public interest.

We therefore state our overall objection to current COWRM procedures and policies regarding water use permit issuance, in a large part because they do not yet exist. We reserve the right to submit additional specific objections to specific permit applications at later dates, since present information about the overall water management context of such permit applications is insufficient for allowing comprehensive, fair assessments.
NHAC requests that COWRM postpone decision-making on all water use permit applications for the subject Water Management Areas until:

1) public hearings about COWRM procedure and policy in processing water use permit applications are concluded and administrative rules governing these processes are revised;

2) necessary assessments of water rights, reserved water uses, surface water uses, and instream flow standards have been completed;

3) these assessments, issuance of water use permits, and certification of declared water uses are woven into an integrated water management decision-making process.

We must implement water use permit application processing methodologies that avoid the continuation of first-come, first-serve permitting. First-come, first-serve water use permit processing contradicts the very heart of the intent of water management area designation. It negates COWRM's effort to involve the community in the water allocation process because it diffuses rather than concentrates the arena of public participation. We cannot have comprehensive water resource management without comprehensive evaluation of water use scenarios.

A finite repeating application period for water management area allocations should be established, after which all applications received in each period can be comprehensively reviewed by a Windward Working Group and COWRM staff for processing recommendations.

NHAC requests that a Windward Working Group be formed similar to the Molokai Working Group in order to recommend reforms to the current piece-meal process of establishing reasonable and beneficial use and resolutions of public interest balancing tests for Windward water.

When existing surface water users have not even been afforded the opportunity to obtain certification, it is extremely unfair for new and existing groundwater uses to have permit applications processed and permits issued (permits which are solid allocations of water and recognition of rights to use that water) when people who have surface and instream uses aren't under designation, are not field verified (so the Commission has no baseline data on what these uses and instream flows might be that they're supposed to protect), and there is no certificate of "reasonable and beneficial" water use. A declaration of water use is an application for certification. One should be able to obtain and use certification in playing off against water use permit applications for groundwater because it is acknowledged in the Code that a certificate does have some meaning and it is something that one should be presenting when getting into a dispute or even a legal battle over water.
At the very least there needs to be some kind of concurrent processing of water use permit applications and declared uses of surface waters. It should be done in a comprehensive way so that everything is on the table at once, even though the specific processes, approvals, and permits are different.

NHAC also supports and concurs with objections filed by Charles Reppun and windward Neighborhood Boards.

Mahalo,

[Signature]

David L. Martin, Water Claims Manager

pc: Honolulu Board of Water Supply
    Kahana Valley State Park
    Kualoa Ranch, Inc.
    Hanohano Enterprises, Inc.
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**EXHIBIT 1**
## Water Use Permit Application Notice Status Report 12/01/93

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**Total Applications:** 67

**Total Water Use:** 67.429

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**Aquifer System:** Koolaauloa  
**Sustainable Yield:** 35 mgd

|                     | GENTARO OTA | 3453-03 | OTA       | 09/01/93 | 0.006 |
|                     | LEMON W. HOLT | 3654-02 | LW HOLT   | 09/01/93 | 0.002 |
|                     | R.E. WHITE JR. | 3855-05 | WHITE     | 10/13/93 | 0.013 |
|                     | KUILIMA RESORT CO. | 4158-14 | KUILIMA 1 | 10/13/93 | 0.302 |

4 Permits Totaling 0.323  
Available Allocation = 34.677
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**WATER USE PERMIT APPLICATION USE STATUS REPORT**

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**EXHIBIT 4**

**PENDING WATER USE PERMIT APPLICATIONS FIELD INVESTIGATION STATUS REPORT 12/01/93**
# PENDING WATER USE PERMIT APPLICATIONS FIELD INVESTIGATION STATUS REPORT 12/01/93

## ISLAND OF OAHU

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<td>5-6-6:5</td>
<td>DONNA GOTH</td>
<td>12/08/93</td>
<td>-78</td>
<td>05/28/93</td>
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<tr>
<td>4057-16</td>
<td>KAHUKU BATTERY</td>
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<td>HONOLULU BUS</td>
<td>5-6-8:5</td>
<td>DONNA GOTH</td>
<td>12/08/93</td>
<td>-78</td>
<td>05/28/93</td>
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<td>Y Y</td>
<td>HONOLULU BUS</td>
<td>5-6-9:3</td>
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<td>12/08/93</td>
<td>-78</td>
<td>05/28/93</td>
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<tr>
<td>4100-01</td>
<td>PALMER G.C.</td>
<td>Y Y</td>
<td>CAMPBELL ESTATE</td>
<td>5-7-1:21</td>
<td>DONNA GOTH</td>
<td>12/08/93</td>
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<td>Y Y</td>
<td>HONOLULU BUS</td>
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<td>Y Y</td>
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<td>5-8-1:62</td>
<td>DONNA GOTH</td>
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<td>-78</td>
<td>05/28/93</td>
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</table>
BWS PUMPAGE - PUNALUU WELLS II
WELL NOS. 3553-03 TO 08; 3554-03

MONTHLY VALUES
12-MAV
REQUESTED AMOUNT
BWS PUMPAGE - HAUULA WELL
Well No. 3655-01

MONTHLY VALUES

12-MAV

REQUESTED AMOUNT

Month (Latest Data 9/93)
CAMPBELL ESTATE PUMPAGE
PUMP 6 (Well No. 3957-07)

Month (Latest Data 10/93)

Pumpage (mgd)

- MONTHLY VALUES
- 12-MAV
- REQUESTED AMOUNT
CAMPBELL ESTATE PUMPAGE
PUMP 1 (Well No. 4057-01)

MONTHLY VALUES

12-MAV

REQUESTED AMOUNT

Pumpage (mgd)

JAN 92

JAN 93

Month (Latest Data 10/93)
CAMPBELL ESTATE PUMPAGE
PUMP 12 (Well No. 4057-07)

Month (Latest Data 8/93)

MONTHLY VALUES  12-MAV  REQUESTED AMOUNT
CAMPBELL ESTATE PUMPAGE
SUGAR MILL PUMP (Well No. 4057-11)

MONTHLY VALUES -- 12-MAV

REQUESTED AMOUNT
Well No. 4057-15,16

ISLAND OF OAHU
HYDROLOGIC UNITS

PROJECT AREA
BWS PUMPAGE - KAHUKU WELLS
Well Nos. 4057-15,16

Month (Latest Data 9/93)
Well No. 4100-01
CAMPBELL ESTATE PUMPAGE
PALMER G.C. WELL (Well No. 4100-01)

Pumpage (mgd)

Month (Latest Data 10/93)

MONTHLY VALUES  12-MAV  REQUESTED AMOUNT
BWS PUMPAGE - WAIALEE WELL I
Well No. 4101-07

Month (Latest Data 9/93)

PH - PUMPAGE (mgd)

- MONTHLY VALUES
- 12-MAV
- REQUESTED AMOUNT
MONTHLY VALUES

12-MAV

REQUESTED AMOUNT

BWS PUMPAGE - WAIALEE WELL II
Well No. 4101-08

Month (Latest Data 9/93)
CAMPBELL ESTATE PUMPAGE
KAHUKU AIRBASE WELL (Well No. 4158-12)

MONTHLY VALUES 12-MAV REQUEST AMOUNT

Month (Latest Data 10/93)
Well No. 4159-02
CAMPBELL ESTATE PUMPAGE
PUNAMANO ARMY (Well No. 4159-02)

MONTHLY VALUES
12-MAV
REQUESTED AMOUNT

Pumpage (mgd)

JAN 92
JAN 93

Month (Latest Data 9/93)
AGENDA # 3

FOR THE MEETING OF THE
COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: December 8, 1993
TIME: 12:00 noon
PLACE: Kalanimoku Building
        Board Room

1. Water Use Permit Applications, Koolaupoko Ground Water Management Area, Oahu

Honolulu Board of Water Supply
Haiku Tunnel, (2450-01); Haiku Well, (2450-02); Iolekaa, (2549-01); Kahaluu Tunnel, (2651-01); Kahaluu Well, (2651-03); Kuou Well II, (2348-05); Kuou Wells I, (2348-02); Kuou Wells I, (2348-03); Luluku Tunnel, (2349-01); Luluku Well, (2349-02); Waihee, (2751-02); Waihee, (2751-03); Waihee Inclined, (2651-01); Waihee Inclined, (2658-02); Waihee Inclined, (2652-03); Waihee Inclined, (2652-04); Waihee Tunnel, (2651-02)

Hawaii State Hospital, (2448-01)

State Housing Finance & Development Corp., Waiahole A & B Wells, (2853-04 & 05)

Mariculture Research Training Center, Hawaii Institute of Marine Biology, University of Hawaii, MRTC/HIMBIUH Well, (3051-02)

2. Water Use Permit Applications, Kahana Ground Water Management Area, Oahu

Kahana Valley State Park, Kahana Artesian Well, (3352-01)

Kualoa Ranch, Inc., Yamamoto Well, (3351-04)

Honolulu Board of Water Supply, Kahana Wells, Well Nos. (3353-01 & 02)
Chairperson and Members
Commission on Water Resource Management December 8, 1993

6. Honolulu Board of Water Supply, Deferral of Water Use Permit Applications, Waimanalo Ground Water Management Area, Oahu

Waimanalo Well II (Well No. 1943-01), Waimanalo Well I (Well No. 2043-02), Waimanalo Tunnel I (Well No. 2044-03), Waimanalo Tunnel II (Well No. 2044-04), Waimanalo Tunnel III (Well No. 2045-03), Waimanalo Tunnel IV (Well No. 2045-05)

Any person may testify or present information on the public hearing subject matter or meeting agenda items. If you have a legal interest that may be adversely affected, you have a right to request an administrative contested case hearing. However, you must make the request either orally or in writing by the close of this public hearing or meeting and file a written petition for a contested case hearing within 10 days after the date of this public hearing or meeting. If you do not make such a request or fail to file a timely written petition with the Commission, the consequence is that you will be precluded from later obtaining a contested case hearing, and seeking judicial review of the adverse decision. See Chapter 13-167, Hawaii Administrative Rules of the Department of Land and Natural Resources.

Also, disabled individuals planning to attend the public hearing or meeting are asked to contact the Commission (at the above address or phone number) to indicate if they have special needs which require accommodation.
Chairperson and Members
Commission on Water Resource Management
December 8, 1993

3. Water Use Permit Applications, Koolauloa Ground Water Management Area, Oahu

Campbell Estate
Amor Ikko (4157-09), Amor Pact 1 (4258-12), Amor Pact 2 (4258-13), Amor RCA 1 (4258-08), Amor RCA 2 (4258-14), Haw Mar Ent Clam (4157-10), Haw Mar Ent Ogo (4157-08), Kahuku Airbase (4158-12&13), Kawananakoa (4056-01), Malaekahana (3956-01), Pacific Sea 2 (4257-01), Pacific Sea 3 (4257-02), Palmer Golf Course (4100-01), Pump 1 (4057-01), Pump 2 (4159-01), Pump 6 (3957-07), Pump 8 (4057-06), Pump 12 (4057-01), Pump 12-A (4057-10), Pump 15 (4157-04), Punamanao (4159-02), Sugar Mill Pump (4057-11), T. Astro (4258-05), USFW 1 (4157-05), USFW 2 (4157-06), USFW 3 (4157-07)

Honolulu Board of Water Supply
Hauula (3655-01), Kahuku Battery (4057-15,16), Kaluanui (3554-04,05), Punaluu I (3553-02), Punaluu II (3553-03,04,06,07,08), Punaluu III (3453-06,07), Waialee I (4101-07). Waialee II (4101-08).

Hanohano Enterprises, Inc., (3553-01)

George N. Nihipali, Jr., (3855-12)

Jacob I. Kaio, Sr., (3956-07)

Any person may testify or present information on the public hearing subject matter or meeting agenda items. If you have a legal interest that may be adversely affected, you have a right to request an administrative contested case hearing. However, you must make the request either orally or in writing by the close of this public hearing or meeting and file a written petition for a contested case hearing within 10 days after the date of this public hearing or meeting. If you do not make such a request or fail to file a timely written petition with the Commission, the consequence is that you will be precluded from later obtaining a contested case hearing, and seeking judicial review of the adverse decision. See Chapter 13-167, Hawaii Administrative Rules of the Department of Land and Natural Resources.
Chairperson and Members

Commission on Water Resource Management          December 8, 1993

Also, disabled individuals planning to attend the public hearing or meeting are asked to contact the Commission (at the above address or phone [redacted]) to indicate if they have special needs which require accommodation.
Dear Mr. Ahue:

Withdrawal of Objections

The Department of Hawaiian Home Lands has been in a position to raise objections to various applications for water use permits, particularly in Windward O'ahu, on the basis that water reservations were yet required to meet statutory obligations to Hawaiian home lands.

Please be advised that as the proposed water reservations in O'ahu and Moloka'i water management areas are finalized, our objections for this reason are thereby withdrawn.

Warmest aloha,

Hoaliku L. Drake, Chairman
Hawaiian Homes Commission

HLD: BH: ci/1608L.77
October 4, 1993

The Honorable Keith W. Ahue, Chairperson
Commission on Water Resource Management
Department of Land and Natural Resources

Dear Mr. Ahue:

Water Use Permits

Thank you for the opportunity to respond to applications for water use at the following Kahuku-Campbell Wells:

4056-01
4056-01,04,06,07,10
4100-01
4157-04,05,06,07,09
4158 01 thru 11
4159-01,02
4258-04

and the Kahuku-Kuilima Well (4158-14).

We have no objections to these applications.

Warmest aloha,

Hoaliku L. Drake, Chairman
Hawaiian Homes Commission
MEMORANDUM

TO: Aquatic Resources
   Forestry and Wildlife
   Historic Preservation
   Land Management
   Natural Area Reserve System
   Office of Conservation and Environmental Affairs
   State Parks
   Water and Land Development
   Other Interested Parties

FROM: Rae M. Loui, Deputy Director

SUBJECT: Request for Comments
         Water Use Permit Application
         Koolauloa Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application for Campbell Estate for Well No. 4159-01. Public notice of this application will be published in the Honolulu Star Bulletin issues of September 8, 1993 and September 15, 1993.

We would appreciate your review of the attached application and please return this form by September 29, 1993.

If you have any questions regarding this application, please contact Roy Hardy at...

Response: Contact person: ___________________ Phone: ___________________

☐ We have no comments
☐ We have no objections
☐ Comments attached
☐ Additional information requested
☐ Extended review period requested

Signed: ___________________ Date: ___________________
1993 September 29

State of Hawaii
Commission on Water Resource Management

OBJECTIONS AND COMMENTS ON APPLICATIONS FOR WATER USE PERMITS
Public Notice dated August 30, 1993
Send written objections by September 29, 1993

NHAC represents water source registrants, water use declarants, water use permit applicants, and others with property interest in land within the hydrologic unit of the source of water supply, as well as persons with non-property interests, all of who would be directly and immediately affected by the proposed water use.

GENERAL OBJECTIONS

We reiterate our general objections to current COWRM water use permit application processing and decisionmaking practices as previously submitted on numerous occasions (10/12/92, 10/21/92, 12/1/92, 6/22/93, & 7/8/93).

Campbell Estate proposes to continue a total of 23.225 mgd of existing uses, 7.0 of which involve seawater. This leaves 16.225 mgd of use from the basal aquifer, yet the May 1992 review draft of the Oahu Water Management Plan (p. 14) reports 1990 groundwater use of only 13.6 mgd. The 16.225 mgd of proposed use is about 46% of the 1992 revised sustainable yield of 35 mgd for the Koolauloa aquifer. Without better knowledge of existing, foreseeable, and potential competing applications for this yield, it is difficult to assess the propriety of allocating almost 50% of aquifer yield to a single applicant.

Many of the applications are for combined domestic and agricultural use. Quantification of the breakdown between these uses is essential at this stage of the permit review process so that existing acreage under cultivation, existing agricultural water use, crop water requirements, and future water allocations can be coherently analyzed.
SPECIFIC OBJECTIONS

Well 4057-01

The well site appears to be upgradient from and close to an unnamed spring. Potential restrictions on the proposed water use not identified in the application include possible effects on interim instream flow standards for the spring, existing legal uses of the spring, and inchoate legal uses of the spring as authorized by Native Hawaiian custom and tradition.

The proposed use of potable water for pasture irrigation should be questioned until applicant shows evidence of the infeasibility of using alternative non-potable water sources.

Well 4057-01

While the public notice only lists Well 4057-01 as the well source, the application identifies 4 other wells that serve as sources for the Pump 1 battery. In order to preserve due process of all parties, the public notice for this application should be revised and re-published with a new deadline for written objections to clearly indicate that Wells 4057-02, -08, -13, and -14 are also part of the application.

The well site appears to be upgradient from and close to the Ki'i National Wildlife Refuge. Potential restrictions on the proposed water use not identified in the application include possible effects on interim instream flow standards for any springs within the refuge, existing legal uses of all refuge waters, and inchoate legal uses of these waters as authorized by Native Hawaiian custom and tradition.

The proposed use of potable water for agricultural irrigation should be questioned until applicant shows evidence of the infeasibility of using alternative non-potable water sources.

Well 4057-04

While the public notice only lists Well 4057-04 as the well source, the application identifies 3 other wells that serve as sources for the Sugar Mill Pump battery. In order to preserve due process of all parties, the public notice for this application should be revised and re-published with a new deadline for written objections to clearly indicate that Wells 4057-09, -11, and -12 are also part of the application.

The well site appears to be upgradient from and close to the Ki'i National Wildlife Refuge. Potential restrictions on the proposed water use not identified in the application include possible effects on interim instream flow standards for any springs within the refuge, existing legal uses of all refuge waters, and inchoate legal uses of these waters as authorized by Native Hawaiian custom and tradition.
The proposed use of potable water for agricultural irrigation should be questioned until applicant shows evidence of the infeasability of using alternative non-potable water sources.

Well 4057-06

While the public notice lists domestic service as an existing water use, the application shows that only water of non-potable quality is being requested for irrigation and other uses only, not for domestic uses. Which is correct?

Well 4057-07

The proposed use of potable water for agricultural irrigation should be questioned until applicant shows evidence of the infeasability of using alternative non-potable water sources.

The well site appears to be upgradient from and close to an unnamed spring. Potential restrictions on the proposed water use not identified in the application include possible effects on interim instream flow standards for the spring, existing legal uses of the spring, and inchoate legal uses of the spring as authorized by Native Hawaiian custom and tradition.

Well 4057-10

The proposed use of potable water for aquaculture should be questioned until applicant shows evidence of the infeasability of using alternative non-potable water sources.

The well site appears to be upgradient from and close to an unnamed spring. Potential restrictions on the proposed water use not identified in the application include possible effects on interim instream flow standards for the spring, existing legal uses of the spring, and inchoate legal uses of the spring as authorized by Native Hawaiian custom and tradition.

Well 4100-02

The proposed use of potable water for aquaculture should be questioned until applicant shows evidence of the infeasability of using alternative non-potable water sources.

The apparent proximity of the well to a perennial Kawela stream tributary may indicate a potential restriction on use not identified in the application, including possible effects on interim instream flow standards, existing legal uses of the stream, and inchoate legal uses of the stream as authorized by Native Hawaiian custom and tradition.

Well 4157-04

The well site appears to be upgradient from and close to the Ki'i National Wildlife Refuge. Potential restrictions on the proposed
water use not identified in the application include possible effects on interim instream flow standards for any springs within the refuge, existing legal uses of all refuge waters, and inchoate legal uses of these waters as authorized by Native Hawaiian custom and tradition.

Well 4157-05 to -07

Potential restrictions on the proposed water use not identified in the application include possible effects on existing legal uses of all refuge waters and inchoate legal uses of these waters as authorized by Native Hawaiian custom and tradition.

Well 4157-09

While we have no specific objections to the extraction of salt water for aquacultural use, we are concerned about the potential impacts of wastewater effluent discharge upon water sources and water uses in the area. These water quality concerns should be listed in the applications as potential restrictions on use.

Wells 4158-01 through -11

The well sites appear to be upgradient from and close to the Ki'i National Wildlife Refuge, Punamano spring, and Punamano National Wildlife Refuge. Potential restrictions on the proposed water use not identified in the application include possible effects on interim instream flow standards for any springs within the refuges and for Punamano spring, existing legal uses of all refuge and spring waters, and inchoate legal uses of these waters as authorized by Native Hawaiian custom and tradition.

Well 4158-14

The well site appears to be upgradient from and close to Punahoolapa springs and Punamano National Wildlife Refuge. Potential restrictions on the proposed water use not identified in the application include possible effects on interim instream flow standards for any springs within the refuge and for Punahoolapa springs, existing legal uses of all refuge and spring waters, and inchoate legal uses of these waters as authorized by Native Hawaiian custom and tradition.

Well 4159-01

The well site appears to be upgradient from and close to Punahoolapa springs and Punamano National Wildlife Refuge. Potential restrictions on the proposed water use not identified in the application include possible effects on interim instream flow standards for any springs within the refuge and for Punahoolapa springs, existing legal uses of all refuge and spring waters, and inchoate legal uses of these waters as authorized by Native Hawaiian custom and tradition.
Well 4159-02

While the public notice lists domestic service as an existing water use, the application shows that only water of non-potable quality is being requested for irrigation and military uses only, not for domestic uses. Which is correct? Note that the application for adjacent Well 4159-01 is for irrigation use of non-potable water.

The well site appears to be upgradient from and close to Punahoolapa springs and Punamano National Wildlife Refuge. Potential restrictions on the proposed water use not identified in the application include possible effects on interim instream flow standards for any springs within the refuge and for Punahoolapa springs, existing legal uses of all refuge and spring waters, and inchoate legal uses of these waters as authorized by Native Hawaiian custom and tradition.

Well 4258-04

The well site appears to be upgradient from and close to Punahoolapa and Punamano springs and Punamano National Wildlife Refuge. Potential restrictions on the proposed water use not identified in the application include possible effects on interim instream flow standards for any springs within the refuge and for Punahoolapa and Punamano springs, existing legal uses of all refuge and spring waters, and inchoate legal uses of these waters as authorized by Native Hawaiian custom and tradition.

Mahalo,

David L. Martin, Water Claims Manager

pc: Campbell Estate
   Kuilima Resort Co.
Native Hawaiian Advisory Council, Inc. (NHAC) represents persons with property interests in lands within the hydrologic units of the sources of water supply and/or who will be directly and immediately affected by the proposed water use. Furthermore, NHAC advocates the enforcement of constitutional, statutory, and common laws which require consideration and accommodation of various appurtenant, riparian, correlative, and Hawaiian water rights, as well as other Hawaiian rights, in the Water Commission's (COWRM) allocation process.

NHAC strongly objects to the wording of the legal notices you have published with respect to who may file written objections or comments. One does not have to prove they will be "immediately affected" by a potentially adverse action in order to meet standing requirements. Therefore, the language of the legal notices is misleading and will have an unwarranted chilling effect on public response and participation in the water use permitting proceedings.

Neither the Water Code nor its rules specifically address the question of standing for filing written objections or comments on applications for water use. Under the Administrative Procedure Act (HAPA) standing has been interpreted very broadly. Furthermore, COWRM has not yet finalized its procedures for processing water use permits in newly designated water management areas. NHAC is quite concerned that COWRM appears to be establishing narrow parameters for standing, as evidenced by these legal notices. This arguably constitutes rulemaking which has not been duly undertaken according to procedures required under HRS 91.

Because water resources have been defined as being owned by the people of the State of Hawai'i in McBryde and Reppuhn all people have property interests in the water supply and may be admitted to any and all proceedings involving its disposition, regulation, and management. NHAC requests that you modify all future legal notices
NHAC objects to COWRM's apparent plan to process water use permits applications on a first-come, first-serve basis. In order to fulfill the legislative intent of water management area designation, a comprehensive view of existing, planned, and proposed water uses and water rights in each hydrologic unit is required. COWRM should merely collect applications during the one-year post-designation application period. Then after the application period is closed, and surveys of water rights and reserved water uses are completed, COWRM can assess and evaluate each application with regard to competing applications, reserved water uses, water rights, and the overall water situation in each hydrologic unit. Without such a process, COWRM will not be able to meet Water Code requirements for evaluating competing uses within the framework of the "reasonable and beneficial" standard and other legally-imposed constraints.

In the case of Pearl Harbor Water Management Area, COWRM has identified a new cushion of water which can be allocated. Staff has received over 80 applications for these approximately 10 mgd of allocations. There is no way that the current first-come, first-serve processing of applications can equitably resolve this situation. A finite application period for these allocations should be established, after which all applications received can be comprehensively processed.

We, therefore, state our overall objection to current COWRM procedures and policies regarding water use permit application processing, in a large part because they do not yet exist. We reserve the right to submit specific objections to proposed permits at later dates, since at present there is insufficient information about the overall context of such permits to allow a fair and informed assessment.

NHAC requests that COWRM postpone decision-making on all water use permit applications for the above-discussed Water Management Areas until after the application period has closed and the necessary assessments of water rights and reserved water uses have been completed.

Mahalo,

[Signature]
David L. Martin, Vice-President
State of Hawaii
Commission on Water Resource Management

COMMENTS ON APPLICATIONS FOR WATER USE--WAHIAWA WATER MANAGEMENT AREA

1. DPW, USASCH Well Nos. 2901-02 and/or 04
2. All (Future/Subsequent) Applications for Wahiawa GWMA

Dear Commissioners:

Native Hawaiian Advisory Council, Inc. (NHAC) represents persons with property interests in lands within the hydrologic units of the sources of water supply and/or who will be directly and immediately affected by the proposed water use. Furthermore, NHAC advocates the enforcement of constitutional, statutory, and common laws which require consideration and accommodation of various appurtenant, riparian, correlative, and Hawaiian water rights, as well as other Hawaiian rights, in the Water Commission's (COWRM) allocation process.

NHAC requests clarification of COWRM's referencing the applications listed above as being within the Wahiawa Ground Water Management Area, Oahu. This is the first time we have seen such a reference. Has there been a decision to break the Pearl Harbor Water Management area into sectors? This will have broad implications which merit public discussion and which must meet other rule-making requirements.

NHAC objects to COWRM's apparent plan to process water use permits applications on a first-come, first-served basis. In order to fulfill the legislative intent of water management area designation, a comprehensive view of existing, planned, and proposed water uses and water rights in each hydrologic unit is required. COWRM should merely collect applications during finite application periods. Then after each application period is closed, and surveys of water rights and reserved water uses are completed, COWRM can assess and evaluate each application with regard to competing applications, reserved water uses, water rights, and the overall water situation in each hydrologic unit. Without such a
process, COWRM will not be able to meet Water Code requirements for evaluating competing uses within the framework of the "reasonable and beneficial" standard and other legally-imposed constraints.

In the case of Pearl Harbor Water Management Area; COWRM has identified a new cushion of water which can be allocated. Staff has received over 80 applications for these approximately 10 mgd of allocations. There is no way that the current first-come, first-served processing of applications can equitably resolve this situation. A finite application period for these allocations should be established, after which all applications received can be comprehensively processed.

We, therefore, state our overall objection to current COWRM procedures and policies regarding water use permit application processing, in a large part, because they do not yet exist. We reserve the right to submit specific objections to proposed permits at later dates, since at present there is insufficient information about the overall context of such permits to allow a fair and informed assessment.

NHAC requests that COWRM postpone decision making on all water use permit applications for the above-discussed Water Management Areas until after the application period has closed and the necessary assessments of water rights and reserved water uses have been completed.

Mahalo,

David L. Martin

David L. Martin, Vice-President

DLM/DCP:tr
1992 December 1

State of Hawaii Commission on Water Resource Management

Attn: Rae M. Loui
Deputy Director

Re: OBJECTIONS TO WATER USE PERMIT APPLICATIONS ALL GROUND WATER MANAGEMENT AREAS STATEWIDE AND RESPONSE TO PUBLIC NOTICES AND TO COWRM LETTER OF NOVEMBER 17, 1992

Dear Ms. Loui:

In studying Hawaii Administrative Rules (HAR) Title 13, Chapter 171, we find no explicit or implicit language supporting your contention that processing water use permits as NHAC previously suggested is inconsistent with these rules or would require rulemaking. We would appreciate some clarification on this point as it seems inconsistent with the fact the Pearl Harbor WMA is now being handled in a manner similar to our suggestions.

Two distinct classes of WMAs will emerge if you proceed on a first-come, first-served basis in some WMAs and with a comprehensive management review of all uses and applications in other WMAs. Then the determination of whether competing WUPAs exceed the available supply becomes a second tier of the designation process. NHAC believes such a management regime requires rulemaking. Granting WUPAs on a first-come, first-served basis will circumvent a number of the conditions for a Water Use Permit particularly if specific reservations for Hawaiian Homelands beneficiaries are not previously implemented and allocations to county boards of water supply for municipal purposes are not established.

COWRM appears not to be in compliance with HAR 13-171-11(b), which implies that COWRM will determine water supply allocated to the county boards of water supply in each water management area. These gross allocations to the counties, as well as gross reservations to Hawaiian Home Lands (required under Act 325), must be defined prior to any new water use permitting to other parties.

While NHAC recognizes there is a rule that COWRM act upon permit applications within 90 or 180 days (HAR 13-171-19(c)) we do not see this as a constraint to the approach we are suggesting. COWRM
records over the last 5.5 years shows that "action" includes deferral of decision making until information needs are met, as well as categorization of applications to facilitate future decision making.

While COWRM, staff, and the public have participated in discussions about water use permit application processing, there have been no formal declarations of COWRM permit application processing policy. It appears that COWRM staff and NHAC are advocating different interpretations of the Administrative Rules governing the water use permitting process, and that perhaps public hearings are needed to help the Commissioners decide what kind of interpretation best serves the purposes of the Water Code and the public interest.

Native Hawaiian Advisory Council (NHAC) requests COWRM defer decision making on water use permit applications until the following issues are resolved:


2. Allocation of water to county municipal purposes.

3. Implementation of water use permit application processing methodologies that avoid the continuation of first-come, first-serve permitting. First-come, first-serve water use permit processing contradicts the very heart of the intent of water management area designation. We cannot have comprehensive water resource management without comprehensive evaluation of water use scenarios.

Sincerely,

/3/

David L. Martin

DLM:cln
pc: Water Commissioners
    Department of Hawaiian Home Lands
    County Boards of Water Supply
    Office of Hawaiian Affairs
    Ka Lahui Hawai`i
    Native Hawaiian Legal Corp.
1993 June 22

State of Hawaii
Commission on Water Resource Management

OBJECTIONS TO AND COMMENTS ON WATER USE PERMIT APPLICATIONS
RESPONSE TO PUBLIC NOTICES DATED MAY 24 AND JUNE 27, 1993

These objections incorporate our previously submitted general objections to water use permit application processing (letters of October 12 & 21 and December 1, 1992).

We would like to ask if all water use declarants, water source registrants, and water use permit applicants in the affected areas have been served direct notice of the pending applications and the deadline for filing objections? Without such notice, these persons cannot be expected to have timely knowledge of pending applications, much less file timely objections. The Water Commission, through its Nakata Subcommittee, has acknowledged this reality and recommended implementation of a process for direct notification of affected parties.

NHAC specifically objects to the permit application filed by Grace Pacific Corp. We contend that use of 170,000 gpd of potable water for industrial washing and dust control is not a reasonable and beneficial use of water, and expect that the applicant will provide further information about the availability or nonavailability of nonpotable water and/or further details about the necessity of potable water use. We further request that this available water resource be placed in reserve for Hawaiian Home Lands since no water from this aquifer was allocated to DHHL in the Water Commission's June 2 reservation decision.

Mahalo,

David L. Martin, Water Claims Manager
State of Hawaii
Commission on Water Resource Management
1993 June 22
Page 2

pc w/enc: Mahealani Ranch
Ellen M. Osborne
Thomas N. Matayoshi
Honolulu Board of Water Supply
The Oceanic Institute
Kamehameha Schools
Grace-Pacific, Inc.
Chairperson Hoaliku Drake, DHHL

enc: Letters of October 12 & 21 and December 1, 1992 from
NHAC to COWRM
TO: State of Hawaii Commission on Water Resource Management

SUBJECT: Comments on Water Use Permit Applications
Kawela Plantation Wells (various numbers)
Honolulu Board of Water Supply Kuou III Well No. 2348-06
DLNR DOWALD Waiawa 1-6 Wells (various numbers)

and any other water use permit applications with comments due July 8 and 9, 1993.

GENERAL OBJECTIONS

We reiterate our general objections to current COWRM water use permit application processing and decisionmaking practices as previously submitted on numerous occasions (10/12/92, 10/21/92, 12/1/92, & 6/22/93).

In addition, we are increasingly concerned about the lack of clear guidelines for timing, sequencing, and coordinating COWRM permitting processes with environmental review processes conducted under other authorities (including HRS 343, BLNR Conservation District Use permitting, DOH 401 and NPDES, and County grading and drainage ordinances). This is discussed more fully within the context of specific objections to the Kuou Well III application below.

SPECIFIC OBJECTIONS

1. Kawela Plantation Wells (All)

The permit application information distributed by COWRM for comment should also include the results of COWRM's field verification of declared water uses and should summarize the monthly water use reports submitted over the last six years for comparison of existing uses with quantities of water requested.

2. Kawela Plantation Breadfruit Well No. 0456-04
Kawela Plantation Ag Well No. 0457-04

NHAC objects to the proposed use of potable water for landscape irrigation. Applicant should provide assessments of alternative water source availability and plans for minimizing landscape irrigation requirements before permit application processing proceeds. The "reasonable and beneficial" nature of the proposed
water uses is suspect until these assessments and plans are reviewed and until the proposed water uses are evaluated within the context of all other existing, planned, proposed, and reserved water uses.

The Ag Well (No. 0457-04) is not listed in the July 14, 1992 COWRM Ground Water Index and Summary, but does appear to be a declared use in COWRM Circular C-123 of September 1992 (listing 5 wells for Kawela Plantation).

When was the declaration of water use filed for Well No. 0457-04? If the declared use began after the implementation of the State Water Code, when were well construction and pump installation permits issued?

3. Honolulu Board of Water Supply Kuou Well 3 No. 2348-06

NHAC objects to further processing of this permit application until the Environmental Assessment (EA) process for the proposed project is completed. Today is the deadline for submitting comments on the Draft EA (DEA) for the exploratory well, after which the Final EA must be published with a subsequent waiting period of thirty days during which the Final EA may be contested.

BWS states in that DEA that "Production well development will be subject to the environmental review process as stipulated in Chapter 343, Hawaii Revised Statutes, and Chapter 200 of the State Department of Health Regulations." In response to this, we wrote:

Does BWS intend to prepare another EA for its Production Well at Kuou Well Site III? Will this EA address a broad range of environmental impacts stemming from both the general allocation of water to BWS from the Koolaupoko Ground Water Management Area and the specifics of extracting that allocation from the aquifer at the proposed site? Since BWS already applied to the Commission on Water Resource Management (COWRM) for a Water Use Permit, we objected to that application on the grounds that the environmental review process for the allocation has not been completed. We object to this DEA because it fails to address the allocation and extraction impacts in the comprehensive manner required to inform COWRM water use permit decisionmaking. Also note that COWRM has recently taken a position that permit applications are not complete and cannot be taken up for decisionmaking until environmental review processes are completed.

There is huge confusion and problems with the current timing, sequence, and coordination of environmental review processes for both exploratory and production wells (including HRS 343 processes, Conservation district use permitting, and DOH processes) and COWRM permitting processes (water use, well construction, and pump installation). The DEA should explain the BWS view and those of other agencies concerning the timing, sequence, and coordination of these processes. This
would provide a starting point for working with all parties to integrate the processes for the greatest mutual benefit.

Similarly, we now ask COWRM to explain its view and how it perceives that of other agencies with regard to these same issues.

NHAC also objects to further processing of this application until water reservations to Hawaiian Home Lands from the designated windward aquifers are completed. We recommend that this application be consolidated with other BWS applications so that the bulk allocation requested by BWS from Koolaupoko and BWS plans for distributing that allocation are more clearly understood.

4. DLNR DOWALD Waiawa Wells 1-6 (All)

NHAC requests additional information and extended review for these proposed uses. We have not yet received the permit applications and other supporting documentation needed to sort out the following issues:

a. COWRM minutes of June 2, 1993 meeting are confusing, and the presently remaining available allocation in the Waipahu-Waiawa system is unclear. Allocation of 2.0127 mgd to BWS on behalf of HFDC was approved (page 9). Was the 5.093 mgd allocation to BWS recommended in the staff submittal (page 4 number 4.) also approved? If so, does the 5.093 mgd allocation include the 2.0127 for HFDC?

b. We need more information and more time to research the land ownership and water rights issues raised by the Federal transfer to the State of the Waiawa lands where the proposed sources are located.

c. We need assurances that DLNR Plans to operate these systems as State water systems and does not plan to dedicate them to BWS.

d. We need to know how DOWALD has responded to COWRM concerns about the specifications for the proposed wells and their potential impact upon aquifer dynamics and existing groundwater uses.

e. We need to know how COWRM plans to integrate environmental review processes under other authorities with its own permitting processes (see above discussion of Koou Well III application).

Based on the information now available, NHAC raises the following specific objections to the applications, and reserves the right to file additional specific objections as information becomes available:

a. Many of the State projects listed (Exhibit 6 of COWRM submittal of 6/2/92) propose using potable water for landscape irrigation of public facilities. Applicant should provide assessments of alternative water source availability and plans for
minimizing landscape irrigation requirements before permit application processing proceeds. The "reasonable and beneficial" nature of the proposed water uses is suspect until these assessments and plans are reviewed and until the proposed water uses are evaluated within the context of all other existing, planned, proposed, and reserved water uses.

b. There may be insufficient available allocation to meet DOWALD's quantity of use requested.

c. DOWALD's requested uses compete with other requested uses, thus it seems that public hearings are required.

d. Most of the State projects listed in the previous COWRM submittal are not listed in the current version of the State Water Projects Plan.

ADDITIONAL INFORMATION/EXTENDED REVIEW REQUESTED

NHAC has not yet received copies of the permit applications filed for DLNR DOWALD Waiawa 1-6 Wells. We request that this information be sent and the review period extended so that we can more closely analyze these extremely significant applications.

In our review of the Star-Bulletin for June 18, 1993, we did not find public notice of the Honolulu Board of Water Supply water use permit application for Kuou III in the "legal notice section or elsewhere. Thus we are unable to ascertain whether or not any other water use permit applications were publicly noticed at that time. If so, we request that you transmit copies of these applications and extend the associated review period.
Mahalo

David L. Martin, Water Claims Manager

pc: Kawela Plantation Homeowner's Association
    Molokai Working Group for COWRM
    Honolulu Board of Water Supply
    DLNR DOWALD
    Water Commissioners
    Water Code Review Commission and Commissioners
    Ka Lahui Hawai‘i
    Hawaiian Homes Commission
    Office of Hawaiian Affairs
    Native Hawaiian Legal Corp.
Mr. Keith Ahue, Chairperson  
Commission on Water Resource Management  
Department of Land and Natural Resources  
State of Hawaii

Dear Mr. Ahue:

Subject: Your Letters of September 9, 1993 on Water Use Permits for Campbell Estate in the Koolauloa Groundwater Management Area, Windward Oahu: Well No. 4056-01; Well No. 4057-01; Well No. 4057-04; Well No. 4057-06; Well No. 4057-07; Well No. 4057-10; Well No. 4100-01; Well No. 4100-02; Well No. 4157-04; Well No. 4157-05; Well No. 4157-06; Well No. 4157-07; Well No. 4157-09; Well No. 4158-01 through 11; Well No. 4158-14; Well No. 4159-01; and Well No. 4159-02

Thank you for the opportunity to comment on these water use permits for Campbell Estate in the Kahuku area. We have no objections to issuance of permits for these existing uses. We feel, however, that the requested amounts of water for some wells are overstated and should be adjusted based on the actual amounts used and in accordance with the sustainable yield, especially when other well owners such as the Board of Water Supply are considered. The requested sum of 14.7+ mgd already exceeds the sustainable yield from the basal aquifer.

In the interests of preserving the best quality water for domestic consumption, however, the operators of the golf course using Well No. 4100-01 should use an alternative source of lesser quality water for irrigation. This action would be in accordance with the Board of Water Supply Rules and Regulations requiring golf courses to use nonpotable sources for irrigation where possible.

We return for your information the completed forms.

Very truly yours,

KAZU HAYASHIDA  
Manager and Chief Engineer

Attachment
MEMORANDUM

TO: Mrs. Hoaliku L. Drake, Director
   Department of Hawaiian Home Lands

   Dr. John C. Lewin, M.D., Director
   Department of Health

   Mr. Clayton H. W. Hee, Chairperson
   Office of Hawaiian Affairs

   Mr. Kazu Hayashida, Manager & Chief Engineer
   Honolulu Board of Water Supply

FROM: Keith W. Ahue, Chairperson
      Commission on Water Resource Management

SUBJECT: Water Use Permit Application
         Koolauloa Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application for Campbell Estate for Well No. 4159-01. Public notice of this application will be published in the Honolulu Star Bulletin issues of September 8, 1993 and September 15, 1993.

We would appreciate your review of the attached application and please return this form by September 29, 1993.

If you have any questions regarding this application, please contact Roy Hardy at [redacted] or Lenore Nakama at [redacted]

Attachment(s)
Memorandum to:
Mrs. Hoaliku L. Drake
Dr. John C. Lewin
Mr. Clayton H.W. Hee
Mr. Kazu Hayashida

Page 2

Response: Contact person: Herbert H. Minakami
( ) We have no comments
( ) We have no objections
(x) Comments attached
( ) Additional information requested
( ) Extended review period requested

Signed: KAZU HAYASHIDA
Manager and Chief Engineer

Date: 8/23/93
MEMORANDUM

TO: Aquatic Resources
     Forestry and Wildlife
     Historic Preservation
     Land Management
     Natural Area Reserve System
     Office of Conservation and Environmental Affairs
     State Parks
     Water and Land Development
     Other Interested Parties

FROM: Rae M. Loui, Deputy Director

SUBJECT: Request for Comments
          Water Use Permit Application
          Koolauloa Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application for Campbell Estate for Well No. 4159-01. Public notice of this application will be published in the Honolulu Star Bulletin issues of September 8, 1993 and September 15, 1993.

We would appreciate your review of the attached application and please return this form by September 29, 1993.

If you have any questions regarding this application, please contact Roy Hardy at

Response: Contact person: Steve Tagawa        Phone: [redacted]

( ) We have no comments
( ) We have no objections
( ) Comments attached
( ) Additional information requested
( ) Extended review period requested

The subject well site is not located within the Conservation District.

Signed: [signature]    Date: 9/30/93

Attachment(s)
September 23, 1993

Mr. Keith Ahue, Chairperson
Commission on Water Resource Management
Department of Land and Natural Resources
State of Hawaii

Dear Mr. Ahue:

Subject: Your Letter of September 9, 1993 on Water Use Permits for Campbell Estate in the Koolauloa Groundwater Management Area, Windward Oahu: Well No. 4056-01; Well No. 4057-01; Well No. 4057-04; Well No. 4057-06; Well No. 4057-07; Well No. 4057-10; Well No. 4100-01; Well No. 4100-02; Well No. 4157-04; Well No. 4157-05; Well No. 4157-06; Well No. 4157-07; Well No. 4157-09; Well No. 4158-01 through 11; Well No. 4158-14; Well No. 4159-01; Well No. 4159-02; Well No. 4158-04

Thank you for the opportunity to comment on these water use permits. We have no objections to issuance of permits for these existing uses. However, the amounts of water requested, for some wells, are overstated and should be adjusted based on the actual amounts used and the applicable sustainable yields.

In the interest of preserving the best quality water for potable use, the operators of the golf course using Well No. 4100-01 should investigate the use of nonpotable water for irrigation. This action would be in accordance with the Board of Water Supply Rules and Regulations requiring golf courses to use nonpotable sources for irrigation where possible.

Warm personal regards.

Sincerely,

FFF:js
cc: Jeremy Harris, Managing Director
Lenore, I crossed of the words "Pump 2" from this file (4159-02) and added "Punamano (Army) Well" for clarification. Campbell had put the words "Pump 2" on the GWMZ permit application which is why there is confusion. The operation of these sources are completely separate, although Campbell Estate prob. expects to take over 4159-02 in a year or so.

4159-02, Punamano well is a cased well, operated by the Army's DPW for a defunct Air Force installation and a few kuleana homes.

4159-01 AKA "PUMP 2" is a set up of two 40 hp pumps withdrawing from a concrete sump fed by an artesian spring 50' away. Campbell Estate operates this to provide irrigation water for their truck farmers mauka of the highway. The current set up designed by Roscoe Moss to modify 4159-01 is described in the well file 4159-01,02.

Susan
Thank you for the opportunity to review this project. The applicant proposes to use water from existing sources. Since an approved permit will not authorize any ground disturbing activities we believe that there will be "no effect" on historic sites.

EJ:jt
MEMORANDUM

TO: Aquatic Resources
    Forestry and Wildlife
    Historic Preservation
    Land Management
    Natural Area Reserve System
    Office of Conservation and Environmental Affairs
    State Parks
    Water and Land Development
    Other Interested Parties

FROM: Rae M. Loui, Deputy Director

SUBJECT: Request for Comments
          Water Use Permit Application
          Koolauloa Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application for Campbell Estate for Well No. 4159-01. Public notice of this application will be published in the Honolulu Star Bulletin issues of September 8, 1993 and September 15, 1993.

We would appreciate your review of the attached application and please return this form by September 29, 1993.

If you have any questions regarding this application, please contact Roy Hardy at [redacted].

LN:ko
Attachment(s)

Response: Contact person: ____________________________ Phone: ____________

( ) We have no comments
( ) We have no objections
( ) Comments attached
( ) Additional information requested
( ) Extended review period requested

Signed: ____________________________ Date: ____________
MEMORANDUM

TO: Mrs. Hoaliku L. Drake, Director
    Department of Hawaiian Home Lands

Dr. John C. Lewin, M.D., Director
    Department of Health

Mr. Clayton H. W. Hee, Chairperson
    Office of Hawaiian Affairs

Mr. Kazu Hayashida, Manager & Chief Engineer
    Honolulu Board of Water Supply

FROM: Keith W. Ahue, Chairperson
    Commission on Water Resource Management

SUBJECT: Water Use Permit Application
    Koolauloa Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application for Campbell Estate for Well No. 4159-01. Public notice of this application will be published in the Honolulu Star Bulletin issues of September 8, 1993 and September 15, 1993.

We would appreciate your review of the attached application and please return this form by September 29, 1993.

If you have any questions regarding this application, please contact Roy Hardy at

Attachment(s)
Memorandum to:
Mrs. Hoaliku L. Drake
Dr. John C. Lewin
Mr. Clayton H.W. Hee
Mr. Kazu Hayashida

Page 2

Response: Contact person: _______________________________ Phone: ____________

( ) We have no comments
( ) We have no objections
( ) Comments attached
( ) Additional information requested
( ) Extended review period requested

Signed: _______________________________ Date: ____________
Honorable Frank F. Fasi, Mayor  
City & County of Honolulu  
City Hall  
Honolulu, HI  

Attn: Mr. Jeremy Harris  

Dear Mayor Fasi:  

Notice of an Application for a Water Use Permit  
Koolauloa Ground Water Management Area, Oahu  

In accordance with the Department of Land and Natural Resources Administrative Rules, Section 13-171-17(a), we are sending you a copy of the public notice for the water use permit application for the Campbell Estate for Well No. 4159-01, which will be published in the Honolulu Star Bulletin.  

In addition, Section 13-171-13(b) of our Administrative Rules states:  

"Within sixty days after receipt of notice of a permit application, the county shall inform the commission if the proposed use is inconsistent with the county land use plans and policies."  

We have attached a copy of the application for your review and would appreciate receiving your comments, within the next sixty (60) days, on whether this water use is consistent with county plans and policies.  

Very truly yours,  

KEITH W. AHUE  
Chairperson  

JOHN C. LEWIN, M.D.  
ROBERT S. NAKATA  
RICHARD H. COX, P.E.  
GUY K. FUJIMURA  
J. DOUGLAS ING, ESQ.  
RAE M. LOUI, P.E.  
Deputy  

Attach.
PUBLIC NOTICE

Applications for Water Use Permits
Ground Water Management Areas

Applications for the following water use permits have been received and are hereby made public in accordance with Department of Land and Natural Resources Administrative Rules 13-171, "Designation and Regulation of Water Management Areas."

Well 4056-01 (Well No. 4056-01)
Applicant: Campbell Estate

Date Complete Application Received: June 16, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Well 4056-01, Kahuku, Oahu at Tax Map Key: 5-6-6:6
Quantity Requested: 1,000,000 gallons per day
Existing Water Use: Domestic service and irrigation of 135 acres of ranch lands for cattle
Place of Water Use: Kahuku at Tax Map Key: 5-6-6:6

Pump 1 (Well No. 4057-01)
Applicant: Campbell Estate

Date Complete Application Received: June 19, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Pump 1, Well No. 4057-01, Kahuku, Oahu at Tax Map Key: 5-6-6:19
Quantity Requested: 1,500,000 gallons per day
Existing Water Use: Domestic service and irrigation of 218 acres of various crops
Place of Water Use: Kahuku at Tax Map Key: 5-6-6:19

Sugar Mill Pump (Well No. 4057-04)
Applicant: Campbell Estate

Date Complete Application Received: June 16, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Sugar Mill Pump, Well No. 4057-04, Kahuku Sugar Mill, Oahu at Tax Map Key: 5-6-2:17
Quantity Requested: 500,000 gallons per day
Existing Water Use: Domestic service and irrigation of 40 acres various crops
Place of Water Use: Kahuku at Tax Map Key: 5-6-2:0

(more)
Pump 8 (Well No. 4057-06)
Applicant: Campbell Estate
Date Completed Application Received: June 16, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Pump 8, Well No. 4057-06, Kahuku, Oahu at Tax Map Key: 5-6-6:18
Quantity Requested: 500,000 gallons per day
Existing Water Use: Domestic service to Kahuku High School and 10-acre turf farm
Place of Water Use: Kahuku at Tax Map Key: 5-6-6:18

Pump 12 (Well No. 4057-07)
Applicant: Campbell Estate
Date Completed Application Received: June 16, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Pump 12, Well No. 4057-07, Kahuku, Oahu at Tax Map Key: 5-6-6:18
Quantity Requested: 2,000,000 gallons per day
Existing Water Use: Domestic service and irrigation of 120 acres various crops
Place of Water Use: Kahuku at Tax Map Key: 5-6-6:18

Pump 12-A (Well No. 4057-10)
Applicant: Campbell Estate
Date Completed Application Received: June 16, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Pump 12-A, Well No. 4057-10, Kahuku, Oahu at Tax Map Key: 5-6-6:18
Quantity Requested: 1,500,000 gallons per day
Existing Water Use: Aquaculture for 48 acres of prawns
Place of Water Use: Kahuku at Tax Map Key: 5-6-6:6

Well No. 338 (Well No. 4100-01)
Applicant: Campbell Estate
Date Completed Application Received: June 17, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Well No. 338, Well No. 4100-01, Kahuku, Oahu at Tax Map Key: 5-7-1:21
Quantity Requested: 800,000 gallons per day
Existing Water Use: Serves 160-acre golf course
Place of Water Use: Kahuku at Tax Map Key: 5-7-1:22

(more)
Kawela Well (Well No. 4100-02)
Applicant: Campbell Estate
Date Completed Application Received: June 16, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Kawela Well, Well No. 4100-02, Kawela, Oahu at Tax Map Key: 5-7-1:21
Quantity Requested: 1,000,000 gallons per day
Existing Water Use: Domestic service and irrigation of 40 acres of various crops
Place of Water Use: Kawela at Tax Map Key: 5-7-1:21

Pump 15 (Well No. 4157-04)
Applicant: Campbell Estate
Date Completed Application Received: June 16, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Pump 15, Well No. 4157-04, Kahuku Aquafarm - Kamehameha Hwy, Oahu at Tax Map Key: 5-6-2:1
Quantity Requested: 30,000 gallons per day
Existing Water Use: Domestic service to 6 military administrative facilities
Place of Water Use: Kahuku Army training area at Tax Map Key: 5-6-8:2

Well No. 4157-05
Applicant: Campbell Estate
Date Completed Application Received: June 17, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Well No. 4157-05, Kahuku, Oahu at Tax Map Key: 5-6-2:1
Quantity Requested: 82,410 gallons per day
Existing Water Use: Maintenance of habitat for endangered water birds
Place of Water Use: James C. Campbell NWR - Kii Unit at Tax Map Key: 5-6-2:0

Well No. 4157-06
Applicant: Campbell Estate
Date Completed Application Received: June 17, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Well No. 4157-06, Kahuku, Oahu at Tax Map Key: 5-6-2:1
Quantity Requested: 105,572 gallons per day
Existing Water Use: Maintenance of habitat for endangered water birds
Place of Water Use: James C. Campbell NWR - Kii Unit at Tax Map Key: 5-6-2:0

(more)
Well No. 4157-07
Applicant: Campbell Estate
Date Completed Application Received: June 17, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Well No. 4157-07, Kahuku, Oahu at Tax Map Key: 5-6-2:1
Quantity Requested: 106,791 gallons per day
Existing Water Use: Maintenance of habitat for endangered water birds
Place of Water Use: James C. Campbell NWR - Kii Unit at Tax Map Key: 5-6-2:0

Well No. 4157-09
Applicant: Campbell Estate
Date Completed Application Received: June 23, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Well No. 4157-09, Kahuku, Oahu at Tax Map Key: 5-6-2:7
Quantity Requested: 7,000,000 gallons per day
Existing Water Use: Aquaculture for 300 acres of shrimp
Place of Water Use: Kahuku at Tax Map Key: 5-6-2:1

Pump 5 (Well Nos. 4158-01 through -11)
Applicant: Campbell Estate
Date Completed Application Received: June 17, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Pump 5, Well Nos. 4158-01 through -11, Kahuku, Oahu at Tax Map Key: 5-6-5:7
Quantity Requested: 1,500,000 gallons per day
Existing Water Use: Irrigation of 688 acres of various crops in State Agricultural Park
Place of Water Use: Kahuku at Tax Map Key: 5-6-5:7

Well No. 4158-14
Applicant: Kuliima Resort Co.
Date Completed Application Received: July 12, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Well No. 4158-14, Kahuku, Oahu at Tax Map Key: 5-6-3:44
Quantity Requested: 800,000 gallons per day
Existing Water Use: Service to 160-acre golf course
Place of Water Use: Kahuku at Tax Map Key: 5-6-3:40

(more)
Pump 2 (Well No. 4159-01)
Applicant: Campbell Estate
Date Completed Application Received: June 17, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Pump 2, Well No. 4159-01, Kahuku, Oahu at Tax Map Key: 5-6-3:43
Quantity Requested: 3,000,000 gallons per day
Existing Water Use: Irrigation for over 250 acres of various crops
Place of Water Use: Kahuku at Tax Map Key: 5-7-1:21

Punamano Pump 2 (Well No. 4159-02)
Applicant: Campbell Estate
Date Completed Application Received: June 17, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Punamano Pump 2, Well No. 4159-02, Kahuku, Oahu at Tax Map Key: 5-6-3:43
Quantity Requested: 1,500,000 gallons per day
Existing Water Use: Domestic service to two military administrative facilities and irrigation of 75-acre pasture
Place of Water Use: Punamano Air Force Station and pasture at Tax Map Key: 5-6-5:0

Well No. 4258-04
Applicant: Campbell Estate
Date Completed Application Received: June 17, 1993
Aquifer: Koolauloa System, Windward Sector, Oahu
Well Source: Well No. 4258-04, Kahuku-RCA Building, Oahu at Tax Map Key: 5-6-3:32
Quantity Requested: 300,000 gallons per day
Existing Water Use: Fish hatchery
Place of Water Use: Kahuku-RCA Building at Tax Map Key: 5-6-3:32

(more)
Written objections or comments on the applications for water use permits may be filed by any person who has property interest in any land within the hydrologic unit of the source of water supply, any person who will be directly and immediately affected by the proposed water use, or any other interested person. Written objections shall: (1) state property or other interest in the matter; (2) set forth questions of procedure, fact, law, or policy, to which objections are taken; and (3) state all grounds for objections to the proposed permits. Send written objections by September 29, 1993 to 1) the Commission on Water Resource Management, [address redacted], and 2) a copy of the objection letter(s) to the applicant at the above address.

COMMISSION ON WATER RESOURCE MANAGEMENT

KEITH W. AHUE
Chairperson

Dated: AUG 30 1993

Publish in: Honolulu Star Bulletin issues of September 8, 1993 and September 15, 1993
MEMORANDUM

TO: Aquatic Resources
   Forestry and Wildlife
   Historic Preservation
   Land Management
   Natural Area Reserve System
   Office of Conservation and Environmental Affairs
   State Parks
   Water and Land Development
   Other Interested Parties

FROM: Rae M. Loui, Deputy Director

SUBJECT: Request for Comments
Water Use Permit Application
Koolauloa Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application for Campbell Estate for Well No. 4159-01. Public notice of this application will be published in the Honolulu Star Bulletin issues of September 8, 1993 and September 15, 1993.

We would appreciate your review of the attached application and please return this form by September 29, 1993.

If you have any questions regarding this application, please contact Roy Hardy at [redacted].

LN:ko
Attachment(s)

Response: Contact person: ___________________________ Phone: ___________________________

( ) We have no comments
( ) We have no objections
☒ Comments attached
( ) Additional information requested
( ) Extended review period requested

Signed: [signature] Date: 9/10/93
MEMORANDUM

TO: Rae M. Loui, Deputy Director
Commission on Water Resource Management

FROM: Henry Sakuda, Administrator
Division of Aquatic Resources

SUBJECT: Comments on water use permit application for Campbell Estate for Well No. 4159-01 in the Koolauloa Ground Water Management Area, Oahu

The application is for an existing well at low elevation between Kamehameha Highway and Kahuku Point. Approximately 3,000,000 gallons of non-potable artesian water will be released daily for agricultural irrigation use. Given the location of the well and the water source, there is little likelihood that it will reduce surface water habitat for native aquatic species. We have no objections from the aquatic biological resources standpoint.
MEMORANDUM

TO: Aquatic Resources
    Forestry and Wildlife
    Historic Preservation
    Land Management
    Natural Area Reserve System
    Office of Conservation and Environmental Affairs
    State Parks
    Water and Land Development
    Other Interested Parties

FROM: Rae M. Loui, Deputy Director

SUBJECT: Request for Comments
          Water Use Permit Application
          Koolauloa Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application for Campbell Estate for Well No. 4159-01. Public notice of this application will be published in the Honolulu Star Bulletin issues of September 8, 1993 and September 15, 1993.

We would appreciate your review of the attached application and please return this form by September 29, 1993.

If you have any questions regarding this application, please contact Roy Hardy at [Contact Information with Phone Number]

LN:ko
Attachment(s)

Response: Contact person: Phone:

( ) We have no comments
( ) We have no objections
( ) Additional information requested
( ) Extended review period requested

DOFAW HAS NO COMMENTS OR OBJECTIONS TO THE PROPOSED REQUEST.

Signed: Carl March Date: SEP 14 1993
MEMORANDUM

TO:      Aquatic Resources
         Forestry and Wildlife
         Historic Preservation
         Land Management
         Natural Area Reserve System
         Office of Conservation and Environmental Affairs
         State Parks
         Water and Land Development
         Other Interested Parties

FROM:   Rae M. Loui, Deputy Director

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If you have any questions regarding this application, please contact Roy Hardy at

Response: Contact person: [Redacted] Phone: [Redacted]

( ) We have no comments
( ) We have no objections
( ) Comments attached
( ) Additional information requested
( ) Extended review period requested

Signed: [Redacted] Date: 9/16/93
MEMORANDUM

TO:  Aquatic Resources
     Forestry and Wildlife
     Historic Preservation
     Land Management
     Natural Area Reserve System
     Office of Conservation and Environmental Affairs
     State Parks
     Water and Land Development
     Other Interested Parties

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Response: Contact person: ___________________________ Phone: ________________

( ) We have no comments
( ) We have no objections
( ) Comments attached
( ) Additional information requested
( ) Extended review period requested

Signed: ___________________________ Date: SEP 20 1993
Oahu District Office has no objection provided that the applicant obtain the required Federal, State and County permits.

Should you have any questions, please call John Dooling at 7-0433.
MEMORANDUM

TO:
Aquatic Resources
Forestry and Wildlife
Historic Preservation
Land Management
Natural Area Reserve System
Office of Conservation and Environmental Affairs
State Parks
Water and Land Development
Other Interested Parties

FROM:
Rae M. Loui, Deputy Director

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We would appreciate your review of the attached application and please return this form by September 29, 1993.

If you have any questions regarding this application, please contact Roy Hardy at [redacted].

Response: Contact person: Gordon Akita
Phone: [redacted]

Signed: [signature]
Date: SEP 24 1993
Ms. Donna Goth  
Campbell Estate

Dear Ms. Goth:

Applications for a Water Use Permit  
Koolauloa Ground Water Management Area, Oahu

We acknowledge receipt, on June 17, 1993, of your completed water use permit applications for the following wells:

- Pump 2 (Well No. 4159-01)
- Punamano Pump 2 (Well No. 4159-02)
- Pump 5 (Well No. 4158-01 to 11)
- Pump 6 (Well No. 3957-07)
- Pump 8 (Well No. 4057-06)
- Well No. 338 (Well No. 4100-01)
- Well No. 4158-14
- Well No. 4258-04
- Well No. 4157-05
- Well No. 4157-06
- Well No. 4157-07
- Malaekahana Well (Well No. 3956-01)
- Pump 3 (Well No. 3957-01)
- Pump 12 (Well No. 4057-07)
- Pump 15 (Well No. 4157-04)
- Pump 1 (Well No. 4057-01)
- Pump 12A (Well No. 4057-10)
- Pump 3A (Well No. 3957-03)
- Sugar Mill Pump (Well No. 4057-04)
- Pump 15 (Well No. 4157-04)
- Well 4056-01 (Well No. 4056-01)
- Kawela Well (Well No. 4100-02)

We also acknowledge receipt of your water use permit application for Air Base Pump (Well Nos. 4158-12 & 13). However, this application is incomplete. Please specify the Tax Map Key portion(s) at which the water is to be used. In addition, please provide an estimate of the number of acres that will be used for aquacultural operations.
The applications for Well Nos. 3957-01, 4057-07, 4157-04, 4057-01, 4057-10, 4158-12 & 13, 3957-03, 4057-04, 4157-04, 4056-01, and 4100-02 indicate that some water will be used for domestic purposes; please provide an estimate of the number of units to be served by each well. Also, potable water is being requested for irrigation and aquaculture. Would brackish and/or fresh/non-potable water, respectively, suffice for these uses?

Lastly, two separate applications were submitted for Pump 15 (Well No. 4157-04). We recommend that the applications be combined because, even though the end-uses may differ, Campbell Estates is the applicant for both. Also, your reporting of monthly water use would be facilitated by not having to individually meter each end-user if you combine the applications.

Upon receipt of the requested information for the Air Base Pump (Well Nos. 4158-12 & 13), we will continue to process the application. We will send you a copy of the public notices and any further information regarding your applications' status. In addition, we may need to visit and verify your proposed water sources and use sites if we have not done so already under our registration program.

If you have any questions, please contact Roy Hardy at [5XXX].

Sincerely,

RAE M. LOUI
Deputy Director

LN:ko
Encl.
Mr. Roy Hardy  
State of Hawaii  
Commission on Water Resource Management  
Department of Land and Natural Resources

Dear Mr. Hardy:

Application for Water Use  
Permits - Non-Potable Water

Enclosed are 11 applications for water use permits for the following wells, along with a $25 filing fee for each application.

- Pump 2 - 4159-01
- Pump 2 - 4159-02
- Pump 5
- Pump 6
- Pump 8
- Well 338
- Well 4158-14
- RCA 4258-04
- Well 4157-05
- Well 4157-06
- Well 4157-07

If you need additional information, please give me a call at [phone number]

Sincerely,

James E. Menor  
Administrator,  
Natural Resources

Enclosures
FIELD INSPECTION CHECKLISTS FOR CAMPBELL ESTATE WELLS OPERATED OR USED BY AMORIENT AS OF JUNE, 1993

Note: Salt Water Wells on Amorients leased land, Wells # 4258-12, 13, 14, 15, 16, 17 and 4157-09, have been recently added to the State Well map. Until a change in policy, salt water wells were not being recorded on the State well map and were not consistently being assigned state well numbers such as fresh water wells are numbered. The fact that not all wells in the area were clearly identified with well numbers may have contributed to the confusion of the situation when, in 1989, Amorient filed water use declarations and misidentified some of their wells. In essence, they filed for some of the wrong wells.

Dr. Linden Burzell, formerly of Amorient, is no longer with the company. Dr. Burzell assisted field personnel in an inspection in 4/91, but misidentified wells on the declarations and during the field inspections. This report supercedes any previous inspections.

Wells in use documented in this report: WELLS 4258-08 & 14, 4258-12 & 13, 4157-09 (IKKO Well), 4157-04 (PUMP 15) -- THOSE WELLS ARE CURRENTLY BEING USED BY AMORIENT.
Also included in this report are Wells 4258-04, -15, -16, -17, 4157-03 (buried) which are located on property leased by Amorient but are not currently in use.

Of the above wells, Amorient filed water use declarations for the following: 4258-04, 4258-08, and pump 15 (4157-04). Amorient also filed for Wells 4258-05, 06 & 07 but I think that he just misidentified wells 4258-15, 16 & 17. When Dr. Burzell, in 1991, took staff to inspect what he was calling Pump 5, he actually took them to the Kahuku Airbase Well (4158-12,13). He misidentified the well on the declaration and in person, and also didn't have access to a key to the pump house. Amorient's office in the RCA Building is a small end user of water from the Kahuku Airbase well. Campbell Estate operates Well 4158-12 & 13. The operation and use of water from the Kahuku Airbase well will be documented in the File Ref: CAMPBELL EST water use declaration file. Both Pump 5 and the Kahuku Airbase well are reported on under CAMPBELL EST.

Under the category "Wells Amorient filed declarations for, that are abandoned or buried" are the following:
1) a well buried under an access road, (4157-03),
and 2) well "4157-05" which evidently was an abandoned salt water dug well, which no longer exists. The number was reassigned in 1987 to a new well drilled for the U.S. Fish & Wildlife.

NOT CONTAINED IN THIS REPORT: File Ref: CAMPBELL EST will contain individual reports on the following wells: (Campbell Estate is the operator of the following wells.)
1) the battery of six wells at Pump 3 (3957-01 to 06) -- no apparent relation with Amorient. This battery of wells has been documented in the File Ref: CAMPBELL EST.
2) Dr. Burzell filed a water use declaration for Pump 5, a battery of abandoned wells that Campbell owns. When Dr. Burzell took staff to inspect what he was calling Pump 5, he actually took them to the Kahuku Airbase Well (4158-12,13). He misidentified the well on the declaration and in person, and also didn't have access to a key to the pump house. Amorient's office in the RCA Building is a small end user of water from the Kahuku Airbase well. Campbell Estate operates Well 4158-12 & 13. The operation and use of water from the Kahuku Airbase well will be documented in the File Ref: CAMPBELL EST water use declaration file. Both Pump 5 and the Kahuku Airbase well are reported on under CAMPBELL EST.
3) Pump 2 (4159-01) at one time, was managed but not used by Amorient. Campbell Estate took over the operation of this well. It will be reported on in File Ref: CAMPBELL EST.
APPLICATION FOR WATER USE PERMIT

1. **(a) APPLICANT**
The Estate of James Campbell
Firm/Name: Donna Goth
Contact Person: Donna Goth

2. **(b) LANDOWNER**
The Estate of James Campbell
Firm/Name: Donna Goth
Contact Person: Donna Goth

3. **WATER MANAGEMENT AREA:**
   Windward Oahu/Ko'olauoa
   ISLAND: Oahu

4. **EXISTING SOURCE NAME AND STATE NUMBER:**
   Pump 2, Well No. 4159-01
   (well or stream diversion name/number)

5. **SOURCE LOCATION:**
   Address: Kahuku
   Tax Map Key: 5-6-03:43
   (Attach a USGS map, scale 1"=2000', and a property tax map showing source location referred to established property boundaries.)

6. **SOURCE TYPE (check one):**
   - Stream
   - Dike-confined
   - Perched
   - Caprock

7. **METHOD OF TAKING WATER (check one):**
   - Hawaiian Flow
   - Diverted Surface Flow
   - Other (explain)

8. **LOCATION OF PROPOSED WATER USE:**
   (If possible, show on same maps as source location. Otherwise, attach similar maps)
   - (a) Address: Kahuku
     Tax Map Key: 5-7-01:21
   - (b) Land Use District (check one): Urban
     - AG-1 Agriculture
     - Conservation
     - Rural
   - (c) County Zoning (describe):

9. **QUANTITY OF WATER REQUESTED:**
   3,000,000 gallons per day

10. **METHOD OF MEASUREMENT:**
    - Flowmeter
    - Open-pipe
    - Well
    - Office
    - Other (explain)

11. **QUALITY OF WATER REQUESTED:**
    - Fresh
    - Brackish
    - Salt
    - Potable
    - Non-Potable

12. **PROPOSED USE:**
    - Municipal (including hotels, stores, etc.)
    - Domestic (individual, noncommercial, etc.)
    - Irrigation
    - Industrial
    - Military
    - Other (explain)

13. **NUMBER AND TYPE OF UNITS TO BE SERVED:**
    Agriculture

14. **TOTAL ACRES PROPOSED FOR IRRIGATION AND TYPE OF CROP:**
    250
    - Various
    - (acre)
    - (crop)

15. **PROPOSED TIME OF WATER WITHDRAWAL OR DIVERSION:**
    24 hours per day
    - (indicate hours of operation)

16. **APPLICANT MUST BRIEFLY DESCRIBE FOLLOWING POTENTIAL RESTRICTIONS ON USE:**
    (a) Impact on Sustainable yield (7):
        Unknown
    (b) Permanant or Interim
        Instream Flow Standards affected (7):
        None
    (c) Hawaiian Home Land uses affected (7):
        None
    (d) Other existing legal uses affected (7):
        None
    (e) Other:

16. **REMARKS, EXPLANATIONS:**
    This well is an artesian flow into the Punahulola sump.

---

Note: Signing below indicates that the applicant understands that, if a water use permit is granted by the Commission on Water Resource Management, a permit is subject to prior existing permitted uses, changes in sustainable yields and water flow standards, reserved uses as defined by the Commission, and Hawaiian Home Lands Water Uses. In addition, applicant understands that, upon permit approval, a water shortage plan must be submitted should the Commission require one.

**Applicant (print):**
The Estate of James Campbell

**Landowner (print):**
The Estate of James Campbell

**Date:**
6/3/97

---

For Official Use Only:
Date Received:
Date Accepted:
Diversion Works No.:
State Well No.:

Notice Date:
Public Mayor BWS Mail List Bulletin Public Hearing
THE ESTATE OF JAMES CAMPBELL
HONOLULU, HAWAII

THE ESTATE OF JAMES CAMPBELL
JAMES CAMPBELL BUILDING • SUITE 500

DATE CHECK NO. AMOUNT
JUN 10 93 91360 $25.00

TO THE ORDER OF
Department of Land & Natural Resources
Commission on Water Resource Management

VOID AFTER 90 DAYS

Pavel to kary 6/24/93
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

FIELD MEMORANDUM

FILE REF.: CAMPBELL ESTATE

WELL #: 4159-01, also known as Pump 2

SOURCE: Water is withdrawn from a concrete canal and sump which collects upwelling water from an artesian spring. Two 40 hp pumps, each with a capacity of 645 gpm, provide water for 250 acres of truck farms on the mauka side of Kam Hwy, plus being the partial source of water for 65 cattle.

SOURCE TMK: 5-6-3:43

DATE: May 21, 1993

PRESENT: Jim Menor, Campbell Estate
Susan Swanson, CWRM

LOCATION: Source located makai of Kamehameha Hwy,
Use area located between Turtle Bay & Waialae Beach Park, Oahu

FIELD NOTES:

A site visit to Pump 2, State Well 4159-01, had previously been done on 10/90 when it was operated by Amorient for the well owners, Campbell Estate. This report supercedes the 10/10/90 report. The major use of this well is by truck farmers on a 2.5 mile long strip on mauka side of Kam Hwy between Pump 2 and Waialae Beach Park. Also, this water provides a major source of drinking water for 65 cattle grazing on the mauka side of the highway.

The newer golf course at Turtle Bay Resort had used some water from Pump 2 during the golf course's "growing in" period, but that use stopped when the well was returned to Campbell Estate control & operation. Former users, Amorient and Kailima Resort, are no longer connected with this well.

Two 40 hp pumps installed on well 4159-01 irrigate approx 250 acres of truck farms. In addition, 65 cattle use water from Pump 2 as a partial source of drinking water. The cattle are located on 1105 acres of land on the mauka side of the Hwy adjacent to the Kahuku Airbase Well, 4158-12, which also provides some water to the cattle.

The purpose of this visit was to document where the water is being used. I photographed various truck farm parcels along Kam Hwy but was unable to get more information as to specific acreage under cultivation from Mr. Menor. Crops being cultivated are papaya, banana, dry land taro, etc.

Campbell Estate has requested 3,000,000 gpd from Pump 2. There are two 40 hp pumps installed to operate the system at a constant pressure of 40 psi. Each pump has a capacity of 645 gpm (Roscoe Moss). The system is automated to provide water as the truck farmers need it.

If the system were operating at maximum capacity 24 hours/day, the pumps together would put out 1,857,600 gallons/day. During the last 18 months, the greatest pumpage reported averaged to 1,269,064 gallons per day, less than half of the amount requested.

Attachments: Photos, Field Inspection Checklist
Tax Map Keys, USGS maps, GWMZ permit application, water use declaration
PART I: USE OF WATER

WELL NO. 4159-01, aka Pump 2  Applicant:  Campbell Estate

Zone:  5 Is this an existing well?  It is existing, it is a spring fed sump.

Ground Water Management Zone Permit Application filed by: Campbell Estate

Water Use Declaration File for this well?  Yes  File Ref:  CAMPBELL EST (current operator) and AMORIENT (No longer operates or uses the well). Kuilima no longer has an interest in this well.

Field Inspection Date? 5/21 & 9/1/93  Is the inspection complete?  YES

Water Use at time of inspection:  The pumpage from Pump 2 has varied in the last 18 months from 185,000 gpd to 1,269,000 gpd. Campbell Estate is requesting 3,000,000 gpd for "250 acres of various crops", more than double their current usage.

<table>
<thead>
<tr>
<th>MONTH</th>
<th>GALLONS</th>
<th>GALLONS PER DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 1993</td>
<td>34,756,400</td>
<td>1,158,546 GPD</td>
</tr>
<tr>
<td>May 1993</td>
<td>36,102,800</td>
<td>1,164,606 GPD</td>
</tr>
<tr>
<td>April 1993</td>
<td>14,273,600</td>
<td>474,786 GPD</td>
</tr>
<tr>
<td>March 1993</td>
<td>39,341,800</td>
<td>1,269,090 GPD</td>
</tr>
<tr>
<td>February 1993</td>
<td>28,485,000</td>
<td>1,017,321 GPD</td>
</tr>
<tr>
<td>January 1993</td>
<td>17,590,300</td>
<td>567,429 GPD</td>
</tr>
<tr>
<td>December 1992</td>
<td>6,639,000</td>
<td>214,161 GPD</td>
</tr>
<tr>
<td>November 1992</td>
<td>14,865,700</td>
<td>495,523 GPD</td>
</tr>
<tr>
<td>October 1992</td>
<td>missing from the file</td>
<td></td>
</tr>
<tr>
<td>January thru Sept. 1992</td>
<td>504,000,000</td>
<td>185,294 GPD</td>
</tr>
</tbody>
</table>

1. Tax Map Key where the water is used: Truck farmers use the water on TMK: 5-7-1:21 (See Photos). Does the applicant (Campbell Estate) own this land?  Yes

2. What is the water used for? Truck farms on the mauka side of Kam Hwy. between Kuilima and Pahipahialua. Not all of the land is in cultivation, but there are numerous parcels being cultivated in papaya, corn and other vegetables.

If for irrigation, how many acres are being irrigated? I was not able to confirm the specific number of acres of vegetables and fruit being irrigated, but believe that 250 acres may be accurate. The use area stretches along a 2.5 mile long strip mauka of Kam Hwy between the well and Waialee Beach Park. Not all the land available is under cultivation. There are two types of water use from this well: 1) Campbell Estate leases out 1109 acres of unimproved grazing land for 65 head of cattle and horses. The cattle's water troughs are filled from Kahuku Airbase Well and from Pump 2. This land is not irrigated.

2) Truck farms mauka of Kam Hwy. use water from pump 2 for drip and sprinkler irrigation. See attached photos.
3. Is the quantity of water use being measured? yes, there is a McCrometer installed on the system serial # 93-6 00152. The meter read 25,575,100 at the time of inspection. Campbell Estate reports pumpage information on a monthly basis.

4. If this person takes from a multi-user pipe or ditch system? NO

PART II: WATER SOURCE

1. Where does the water come from/what kind of source is this? An artesian spring flows into a canal-like structure. The two 40 hp Peerless pumps withdraw water from a sump in the canal. Water is discharged through a 16" transmission line.

2. Show the source location on maps, determine latitude and longitude, and document the nature of source development by measurements, sketches, and photographs.

   How is the water taken? Two 40 hp General Electric pumps w/6" intakes.

   What is the capacity for taking (gpm)? 645 gpm
   How often is it taken (used)? It is an automated system, the pumps turn on when the pressure in the system falls below 40 psi. The two 645 gpm pumps supply water to drip and sprinklers systems on the mauka Haleiwa side of Kam Hwy. Use depends on season, weather and crop.

3. Tax Map Key at the source: TMK: 5-6-3:43
   Determine applicant's relation to source.

   Does the applicant:
   1) Operate and maintain the source? yes
   2) Own the land at the source? yes
   3) Use the water from this source? yes, Campbell leases land and provides water for truck farmers.

4) Own the land where the water is being used? yes

4. Does anyone else also use water from this source? No. The Army operates a well, 4157-02 within several hundred feet, but their well is a cased well which provides potable water to several kuleanas nearby.

   Kuilima used the well during the construction of their golf course, but they no longer use this source. Amorient used to be the operator, but they no longer use or operate the system. The Campbell Estate lessees on the mauka side of Kam Hwy use the water, Campbell Estate operates the well.

Verified By: Susan Swanson          Dates of Inspection: 5/21 & 9/1/93
March 11, 1986

Attention: Ed McSweeny

Reference: Proposal to Supply and Install one (1) Duplex Constant Speed Skid-Mounted Pump Package.

Gentlemen:

This proposal is to supply two (2) each constant speed vertical turbine pumps, complete with piping, butterfly valves, check valves, hydraulic pressure regulating claton valve and a 250 gallon hydрапnuematic control tank and a pre-wired electric control panel complete with hard-wired relay logic to control the pumps.

The proposed vertical turbine pumps are arranged and controlled in such a manner as to provide pumpage from 200 GPM to 1,290 GPM at a constant system pressure of 40 PSI. The pumps are electrically interconnected by the motor control which provides the lead lag logic circuitry required to maintain parralell pumpage.

The basic package is mounted on a structural steel skid arranged in such a way as to span the existing concrete intake structure at the Kahuku pump #2 site.

The pumps will operate as follows:

The lead pump will start when the system pressure falls below 35 PSI which activates a set point on the pressure switch. The lead pump will stop when the flow rate falls to a field determined value and will be indicated by the clav-valve and a position switch. Both pumps are provided with minimum run timers, which have field adjustable capability.

The lead pump will be a Peerless short coupled vertical pump model 10MA and is sized to produce 645 GPM @ 160' TDH. The pump and motor will operate at 3,540 RPM and will require a 480V, 3 phase electrical power service. The lag pump is similar to the lead pump and is a Peerless model 10MA which is sized to produce 645 GPM @ 160' TDH.
The lag pump like the lead pump will start on pressure drop when the tank mounted pressure switch reaches a set point of 30 PSI. Both lag and lead pumps are electrically and mechanically interlocked to provide a start on falling pressure only. When the lag pump starts it will remain in the system and will maintain the system pressure at approximately 30 - 40 PSI for all flow demands between 650 GPM and 1,290 GPM. Both the lead and the lag pumps have in their electrical control logic adjustable minimum run timers to prevent short cycle nuisance stops.

Parallel pumping will occur when the system drops below a field determined pressure set point which will occur when the lead pump cannot supply the demand. The lag pump will automatically come into the system to provide the parallel pumping. The lag pump will then remain in a parallel pumping mode until the system demand drops below 650 GPM. All lead and lag stop set points are controlled by micro switches mounted on the cla-valve operating stem.

When the lag pump is dropped off the system the lead pump continues to operate until a 200 GPM set point on the cla-valve is reached and provided that the system pressure exceeds 35 PSI. At this point the lead pump will shut down.

We propose to provide all of the foregoing equipment mounted on a skid, completely wired and connected to the existing 16" discharge pipeline. This proposal proposes to uses two of the 60 horsepower magnetic starters now located in the pump #2 building.

The duplex control panel will be locally provided and will be fabricated by Pacific Electro Mechanical who will design the system logic, design and fabricate the panel, provide field installation adjustment and startup service.

All of the foregoing is quoted lump sum in place and tested $27,345.00.

Very truly yours,

Bill Moore, Manager
Pump Sales/Service

BM:eya

Exceptions:

1) Amorent Inc. will clear and grub the area around the concrete intake structure as there now exists considerable jungle growth.

2) Amorent will remove the the beehive in the pump house.
Irrigation Pump Layout

Scale: 1' = 1/0

1. 300 Gallon Hydro Tank
2. 6" Discharge Head
3. 6" Water Check Valve
4. 60 HP Pumps
5. 3/4" Galvanized Header
6. 10" I Beam (Typical)
7. 10" Channel Beam (Typical)
8. Intake Structure
9. Clayton Valve
10. 3/4" Jack Plate Under Tank
SPECIFICATIONS - PUMPS

MOTORS: NP-1 - 40. HORSE POWER
480 VOLT
60 HERTZ
3300 RPM
VERTICAL HOLLOW SHAFT
CENTER OIL SEAL

DISCHARGE HEAD
CAST STEEL: 10 x 10 x 16 1/2
STUFFING BOX: Packed
BASE PLATE: COST ITEM

COLUMN: 6" Dia. - STEEL
CHAFT: 1" 1/16" Dia. - 416 St. St.

BOWL: CI STEEL
BRONZE IMPELLERS
1" 1/16" St. St. BOWL START
BASKET: STRAINER

TANK: 36" Dia.
75" OA.
378 GALLONS
150 PSI @ 500° F MAX

VALVE: METRA FLEX
CUT-GUARDED CHECK

Piping: STEEL

SKID: STRUCTURAL STEEL PRINTED
IN SIZES INDICATED
## Monthly Ground Water Use Report

**Month of June, 1993**

6/1/93 to 6/30/93

(Month / Day / Year) (Month / Day / Year)

### INSTRUCTIONS

Complete this form to report total monthly ground water use from each of your well sources, and mail to Division of Water Resource Management. A separate form is available for reporting of surface water use.

<table>
<thead>
<tr>
<th>Well Name</th>
<th>State Well No.</th>
<th>Water Use Quantity</th>
<th>Method of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump 2</td>
<td>4159-01</td>
<td>34,756,400</td>
<td>Metered</td>
</tr>
</tbody>
</table>

Additional information: (Water level, chlorides, temperature, pump condition, change in use, etc.)

**Submitted by (print) James E. Menor**

**Signature** [Signature]

**Title** Administrator, Nat'l Res.

**Date** July 8, 1993
APPLICATION FOR WATER USE PERMIT

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

APPLICATION FOR WATER USE PERMIT

☐ Ground Water or ☐ Surface Water

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management. Application must be accompanied by a non-refundable filing fee of $25.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at.

1. (a) APPLICANT
   Firm/Name: The Estate of James Campbell
   Contact Person: Donna Goth

   (b) LANDOWNER
   Firm/Name: The Estate of James Campbell
   Contact Person: Donna Goth

2. WATER MANAGEMENT AREA: Windward Oahu/Koolauloa
   ISLAND: Oahu

3. (a) EXISTING SOURCE NAME AND STATE NUMBER:
   WATER REQUESTED: Pump 2, Well No. 4159-01
   (well or stream diversion name/number)
   (b) PROPOSED (NEW) SOURCE NAME:
   None

4. SOURCE LOCATION: Address: Kahuku
   Tax Map Key: 5-6-03:43
   (Attach a USGS map, scale 1:2000, and a property tax map showing source location referenced to established property boundaries.)

5. SOURCE TYPE (check one):
   □ Stream □ Dike-confined
   □ Perched □ Caprock

6. METHOD OF TAKING WATER (check one):
   □ Artesian Flow □ Well & Pump
   □ Diverted Surface Flow □ Other (explain)

7. LOCATION OF PROPOSED WATER USE: (If possible, show on same maps as source location. Otherwise, attach similar maps)
   (a) Address: Kahuku
   Tax Map Key: 5-7-01:21
   (b) Land Use District (check one):
   □ Urban □ Agriculture □ Conservation □ Rural
   (c) County Zoning (describe)

8. QUANTITY OF WATER REQUESTED: 3,000,000 gallons per day

9. METHOD OF MEASUREMENT:
   □ Floometer □ Open-pipe □ Wells □ Office □ Other (explain)

10. QUALITY OF WATER REQUESTED:
    □ Fresh □ Brackish □ Salt □ Potable □ Non-Potable

11. PROPOSED USE:
    □ Municipal (including hotels, stores, etc.) □ Domestic (individual, non-commercial, etc.)
    □ Irrigation □ Industrial □ Military
    □ Agriculture □ Other (explain)

12. NUMBER AND TYPE OF UNITS TO BE SERVED (explain):

13. TOTAL ACRES PROPOSED FOR IRRIGATION AND TYPE OF CROP:
    250 Various (acre) (crop)

14. PROPOSED TIME OF WATER WITHDRAWAL OR DIVERSION:
    24 hours per day
    (Indicate hours of operation)

15. APPLICANT MUST BRIEFLY DESCRIBE FOLLOWING POTENTIAL RESTRICTIONS ON USE:
    (a) Impact on Sustainable yield (?):
    Unknown
    (b) Permanant or interim
    Instream Flow Standards affected (?):
    None
    (c) Hawaiian Home Land uses affected (?):
    None
    (d) Other existing legal uses affected (?):
    None
    (e) Other:

16. REMARKS, EXPLANATIONS:
    This well is an artesian flow into the Punaluula sump.

(Note: Signing below indicates that the applicant understands that, if a water use permit is granted by the Commission on Water Resource Management, a permit is subject to prior existing permitted uses, changes in sustainable yields and Instream Flow Standards, reserved uses as defined by the Commission, and Hawaiian Home Land Acts. In addition, applicant understands that, upon permit approval, a water shortage plan must be submitted should the Commission require one.)

Applicant (print) The Estate of James Campbell
Signature ________________________________
Date 6/3/13 ________________________________
Landowner (print) The Estate of James Campbell
Signature ________________________________
Date 6/3/13 ________________________________

For Official Use Only:
Date Received ________________________________
Date Accepted ________________________________

Notice Dates:
Pub Date Mayor BWS Mail List

(If more space is needed, continue on back side)
STATE OF HAWAII
COMMISSION ON WATER RESOURCE MANAGEMENT
DEPARTMENT OF LAND AND NATURAL RESOURCES
DEPARTMENT OF WATER AND LAND DEVELOPMENT

REGISTRATION OF WELL AND
DECLARATION OF WATER USE

STATE WELL NO.: 4159-01
GLAND: Oahu
WELL NAME OR DESIGNATION: 341-A (see Bulletin 4, 1938, p. 194)
SOURCE OR STATION NAME (For a battery of wells):

A. WELL OPERATOR
Firm name: Amorent
Contact person: [Last name redacted]

B. OWNER OF WELL SITE
Firm name: Campbell Estate
Contact person: Sam Keala

C. WELL LOCATION
Tax Map Key: 56-03-03
Town, Place, District: Koolauloa, Kahuku
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.

Ground elevation (mean sea level): 6 ft.
Reference point (used to measure depth to water): 12 ft.
Elevation: Description:

Depth to water (below reference point): 12 ft.
Maximum recorded chloride: 177 ppm
Minimum recorded chloride: 174 ppm
Maximum chloride in 1937: 177 ppm

E. INSTALLED PUMP DATA
Pump type: [Select one]
Centrifugal
Other (specify):
Power: [Select one]
Electric, 2 HP each
Gas, 2 @ 40 HP each
Dia: 6 in.

For Official Use Only:
Date received: [Redacted]
Date accepted: [Redacted]
Field checked by: [Redacted]
Data: [Redacted]
Latitude: 21°41'59"
Longitude: 157°53'10"
Hydrologic Unit:
State Well No.: 4159-01

References: Hawaii Revised Statutes, Chapter 174C.
Hawaii Administrative Rules, Chapters 13-167 to 13-171.

This well no longer operated or used by Amorent, Campbell Estate.

*Signature*

[Signatures redacted]
F. DECLARATION OF WATER USE

NOTE: The purpose of the Declaration of Water Use is to obtain information necessary for the management of the State's water resources. The Declaration does not confer a legal right to water or its use.

Water use data are recorded: □ Daily □ Weekly □ Monthly

Method of measurement: □ Flow Meter □ Orifice □ Other (Describe): ________________________________

Quantity of Use (Report metered or estimated monthly water use from the well described on the reverse side of this form, for the calendar years 1983 through 1987. For a battery of wells which are not individually metered, but which are connected to a single meter or other measuring device, report total use from the battery):

<table>
<thead>
<tr>
<th>WATER USE, IN GALLONS x 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>February</td>
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<td>March</td>
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<td>September</td>
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<td>October</td>
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<tr>
<td>November</td>
</tr>
<tr>
<td>December</td>
</tr>
<tr>
<td>ANNUAL</td>
</tr>
</tbody>
</table>

Minimum day's use: _______________ gallons  Maximum day's use: _______________ gallons

Typical times of usage: ________________________________

Type of Use (Check all category boxes that apply and provide additional information as indicated):

<table>
<thead>
<tr>
<th>Category</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Municipal (including resorts, hotels, businesses)</td>
<td>Number of service connections: ________________________________</td>
</tr>
<tr>
<td>□ Domestic (systems serving 25 people or less)</td>
<td>Acres Irrigated: ________________________________</td>
</tr>
<tr>
<td>□ Irrigation</td>
<td>Crop(s): □ Sugar □ Pineapple</td>
</tr>
<tr>
<td></td>
<td>Other (specify): ________________________________</td>
</tr>
<tr>
<td></td>
<td>Non-Crop: □ Landscape □ Golf Course</td>
</tr>
<tr>
<td></td>
<td>Other (specify): ________________________________</td>
</tr>
<tr>
<td></td>
<td>Method: □ Drip □ Furrow □ Sprinkler</td>
</tr>
<tr>
<td></td>
<td>□ Cooling □ Manufacturing □ Mill</td>
</tr>
<tr>
<td></td>
<td>Other (specify): ________________________________</td>
</tr>
<tr>
<td>□ Industrial</td>
<td>Specify (livestock, aquaculture, etc): ________________________________</td>
</tr>
<tr>
<td>□ Military</td>
<td>________________________________</td>
</tr>
<tr>
<td>□ Other</td>
<td>________________________________</td>
</tr>
</tbody>
</table>

I declare that the contents of the above Declaration of Water Use are, to the best of my knowledge and belief, true, correct, and complete.

Water User's Signature: ___________________________  Date: 22 May 1989

Printed Name: ___________________________  Firm or Title (Well Operator, etc.): ___________________________

[Handwritten signature and additional notes]
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

STATE WELL NO.: 4159-01

WELL NAME OR DESIGNATION: 341-A (see Bulletin 4, 1938, p. 194)

SOURCE OR STATION NAME (For a battery of wells): 

A. WELL OPERATOR
Firm name: Amoriente
Contact person: LINDAY BURTELL

B. OWNER OF WELL SITE
Firm name: Campbell Estate
Contact person: Sam Keala

C. WELL LOCATION
Tax Map Key: 5-6-03:43
Town, Place, District: Koolauloa, Kahuku

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

D. WELL DATA
For Drilled Wells, submit "as-built" drawing, drilling log, and pump test results, and complete items below.
For Tunnels and Shafts, submit construction drawings, plot plan, or sketch map.

Ground elevation (mean sea level): 6 ft.
Reference point (used to measure depth to water):
Elevation: ft.
Description:

Depth to water (below reference point): ft.
Maximum recorded chloride: ppm
Minimum recorded chloride: ppm
Maximum chloride in 1987: ppm

E. INSTALLED PUMP DATA
Pump type: Vertical shaft
Submersible
Centrifugal
Other

Power: Diesel HP
Gas HP
Electric HP
Other

Pump capacity: 2 @ 40 HP each
Pump installation contractor:

(continued over)

For Official Use Only:
Date received: 
Date accepted: 
Field checked by: HE/MA
Data: 4/17/1
Latitude: 21°41'51"
Longitude: 159°59'10"
State Well No.: 4159-01

References: Hawaii Revised Statutes, Chapter 174C.
Hawaii Administrative Rules, Chapters 13-167 to 13-171.

2 forms for same well.

Amendment to
F. DECLARATION OF WATER USE

NOTE: The purpose of the Declaration of Water Use is to obtain information necessary for the management of the State's water resources. The Declaration does not confer a legal right to water or its use.

Water use data are recorded: ☐ Daily ☐ Weekly ☑ Monthly
☐ Other (describe): ____________________________

Method of measurement: ☐ Flow Meter ☐ Orifice
☐ Other (describe): ____________________________

Quantity of Use: (Report metered or estimated monthly water use from the well described on the reverse side of this form, for the calendar years 1983 through 1987. For a battery of wells which are not individually metered, but which are connected to a single meter or other measuring device, report total use from the battery):

WATER USE, IN GALLONS x 1000

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
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<tbody>
<tr>
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<td>1700</td>
<td>70103</td>
<td>45497</td>
<td>66331</td>
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<td>February</td>
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<td>77755</td>
<td>14669</td>
<td>42879</td>
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<td>119731</td>
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<td>168768</td>
<td>12342</td>
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<tr>
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<td>129763</td>
<td>22824</td>
<td>209900</td>
<td>14023</td>
</tr>
<tr>
<td>May</td>
<td>33100</td>
<td>124400</td>
<td>280201</td>
<td>169030</td>
<td>15999</td>
</tr>
<tr>
<td>June</td>
<td>53800</td>
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<td>204498</td>
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<td>11675</td>
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<td>July</td>
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<td>89049</td>
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<td>8779</td>
<td>12591</td>
</tr>
<tr>
<td>August</td>
<td>33100</td>
<td>70219</td>
<td>206090</td>
<td>11799</td>
<td>22316</td>
</tr>
<tr>
<td>September</td>
<td>50900</td>
<td>45528</td>
<td>158008</td>
<td>15777</td>
<td>16895</td>
</tr>
<tr>
<td>October</td>
<td>38300</td>
<td>37727</td>
<td>150707</td>
<td>13358</td>
<td>9087</td>
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<tr>
<td>November</td>
<td>27400</td>
<td>59294</td>
<td>64896</td>
<td>11651</td>
<td>11784</td>
</tr>
<tr>
<td>December</td>
<td>23500</td>
<td>49321</td>
<td>87843</td>
<td>12039</td>
<td>11302</td>
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<tr>
<td>ANNUAL</td>
<td>383800</td>
<td>976510</td>
<td>1683671</td>
<td>879991</td>
<td>160927</td>
</tr>
</tbody>
</table>

Minimum day's use: ____________ gallons
Maximum day's use: ____________ gallons
Typical times of usage: __________________________

Type of Use (Check all category boxes that apply and provide additional information as indicated):

- Municipal (including resorts, hotels, businesses)
- Domestic (systems serving 25 people or less)
- Irrigation
- Industrial
- Military
- Other

Additional Information

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of service connections:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipals</td>
<td></td>
</tr>
<tr>
<td>Domestic</td>
<td></td>
</tr>
<tr>
<td>Irrigation</td>
<td></td>
</tr>
<tr>
<td>Industrial</td>
<td></td>
</tr>
<tr>
<td>Military</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Specify (livestock, aquaculture, etc.):</td>
</tr>
</tbody>
</table>

Acres Irrigated: ___________________
Crop(s): ☐ Sugar ☐ Pineapple
☐ Other (specify): ___________________
Non-Crop: ☐ Landscape ☐ Golf Course
☐ Other (specify): ___________________
Method: ☐ Drip ☐ Furrow ☐ Sprinkler
☐ Cooling ☐ Manufacturing ☐ Mill
☐ Other (specify): ___________________

I declare that the contents of the above Declaration of Water Use are, to the best of my knowledge and belief, true, correct and complete.

Water User's Signature: ____________________________ Date: 22 May 1989
Printed Name: ____________________________
Firm or Title (Well Operator, etc.): ____________________________
**REGISTRATION OF WELL AND DECLARATION OF WATER USE**

**STATE OF HAWAII**
**COMMISSION ON WATER RESOURCE MANAGEMENT**
**DEPARTMENT OF LAND AND NATURAL RESOURCES**
**DIVISION OF WATER RESOURCE MANAGEMENT**

**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. Phone 548-3948 or 548-7543 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>STATE WELL NO.: 4159-01</th>
<th>ISLAND: Oahu</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELL NAME OR DESIGNATION: 341-A (see Bulletin 4, 1938, p. 194)</td>
<td></td>
</tr>
<tr>
<td>SOURCE OR STATION NAME</td>
<td>(For a battery of wells):</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A. WELL OPERATOR</th>
<th>B. OWNER OF WELL SITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm name: Americast</td>
<td>Firm name: Campbell Estate</td>
</tr>
<tr>
<td>Contact person: Lindsey Burnett</td>
<td>Contact person: Sam Keala</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C. WELL LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Map Key: 5-6-03:43</td>
</tr>
<tr>
<td>Attach USGS &quot;Quad&quot; map (scale 1:24,000), tax map, or other map showing the well location.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D. WELL DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Drilled Wells, submit &quot;drill&quot; drawing, drilling log, and pump test results, and complete items below. For Tunnels and Shafts, submit construction drawings, plan, or sketch map.</td>
</tr>
<tr>
<td>Ground elevation (mean sea level):</td>
</tr>
<tr>
<td>Reference point (used to measure depth to water):</td>
</tr>
<tr>
<td>Elevation:</td>
</tr>
<tr>
<td>Description:</td>
</tr>
<tr>
<td>Depth to water (below reference point):</td>
</tr>
<tr>
<td>Maximum recorded chloride:</td>
</tr>
<tr>
<td>Minimum recorded chloride:</td>
</tr>
<tr>
<td>Maximum chloride in 1907:</td>
</tr>
<tr>
<td>Year drilled or constructed:</td>
</tr>
<tr>
<td>Well contractor:</td>
</tr>
<tr>
<td>Casing diameter:</td>
</tr>
<tr>
<td>Solid casing depth (below ground):</td>
</tr>
<tr>
<td>Perforated casing depth (below ground):</td>
</tr>
<tr>
<td>Total depth of well:</td>
</tr>
<tr>
<td>Minimum chloride in 1987:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E. INSTALLED PUMP DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump type:</td>
</tr>
<tr>
<td>Power:</td>
</tr>
<tr>
<td>Pump capacity:</td>
</tr>
<tr>
<td>Pump installation contractor:</td>
</tr>
</tbody>
</table>

**For Official Use Only:**
<table>
<thead>
<tr>
<th>Date received:</th>
<th>Date accepted:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field checked by:</td>
<td>Date:</td>
</tr>
<tr>
<td>Comments:</td>
<td>Latitude:</td>
</tr>
<tr>
<td>Hydrologic Unit:</td>
<td>Longitude:</td>
</tr>
<tr>
<td>State Well No.:</td>
<td></td>
</tr>
</tbody>
</table>

**References:** Hawaii Revised Statutes, Chapter 174C.
Hawaii Administrative Rules, Chapters 13-167 to 13-171.
F. DECLARATION OF WATER USE

NOTE: The purpose of the Declaration of Water Use is to obtain information necessary for the management of the State's water resources. The Declaration does not confer a legal right to water or its use.

Water use data are recorded:  
☐ Daily  ☐ Weekly  ☐ Monthly

Method of measurement:  
☐ Flow Meter  ☐ Orifice

☐ Other (Describe):_________________________

Quantity of Use (Report metered or estimated monthly water use from the well described on the reverse side of this form, for the calendar years 1983 through 1987. For a battery of wells which are not individually measured, but which are connected to a single meter or other measuring device, report total use from the battery):

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<tr>
<td>November</td>
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<tr>
<td>December</td>
</tr>
<tr>
<td>ANNUAL</td>
</tr>
</tbody>
</table>

Minimum day's use:__________ gallons  Maximum day's use:__________ gallons

Typical times of usage:_______________________________________________________

Type of Use (Check all category boxes that apply and provide additional information as indicated):

- ☐ Municipal (including resorts, hotels, businesses)
- ☐ Domestic (systems serving 25 people or less)
- ☐ Irrigation
- ☐ Industrial
- ☐ Military
- ☐ Other

Additional Information

Number of service connections:______________________________________________

Acres Irrigated:

☐ Sugar  ☐ Other (specify):________________________

☐ Pineapple  ☐ Other (specify):________________________

Non-Crop:

☐ Landscape  ☐ Golf Course

☐ Other (specify):________________________

Method:

☒ Drip  ☐ Furrow  ☐ Sprinkler

☐ Cooling  ☐ Manufacturing  ☐ Mill

☐ Other (specify):________________________

Specify (livestock, aquaculture, etc.):________________________

I declare that the contents of the above Declaration of Water Use are, to the best of my knowledge and belief, true, correct and complete.

Water User's Signature:________________________ Date:______________

Printed Name:________________________

Firm or Title (Well Operator, etc.):________________________
Portion of channel used to collect water from spring source.

Spring source is to left of photo.

New pump installed over sump at pump #2 site serve as backup to golf course irrigation system.

Campbell Farm water for 250+ acres truck farmers.

3/29/92

3/1/92
Spring-fed channel w/ 2 original 40 HP pumps
(Well 4159-01, Pump 2)

Two original pumps on Well 4159-01, Pump 2.
Pumps have 6" intakes, 40 HP motors, combined capacity of 1290 gpm.
Pump 2, Well 4159-01. Source is artesian spring flowing into concrete sump.

Air Force line from Well 4159-02

ARMY - KAHUKU PUMP
Pump 2, Well 4159-01
Campbell Estate Field Inspection
Photos taken on 5/21, 6/4, 9/1/93
Pump 2, Well 4159-01
Campbell Estate Field Inspection
Photos taken on 5/21, 6/4, 9/1/93
Pump 2, Well 4159-01
Campbell Estate Field Inspection
Photos taken on 5/21, 6/4, 9/1/93
Pump 2, Well 4159-01
Campbell Estate Field Inspection
Photos taken on 5/21, 6/4, 9/1/93
Pump 2, Well 4159-01
Campbell Estate Field Inspection
Photos taken on 5/21, 6/4, 9/1/93

Photo # 4 View of Pump 2 from the Punamano well site, (well 4159-02) that the Army's Dept. Public Works operates for the Air Force.

Photos # 5 - 24
Pump 2's system is automated to turn pumps on as needed to maintain 40 psi in the system. Truck farmers use the water on the mauka side of Kam Hwy between Pump 2 and Waialae Beach Park. The following 20 photos depict truck crops being irrigated with water from Pump 2. How much of the field is under cultivation is variable, crops were seen in all stages of growth.
Pump 2, Well 4159-01
Campbell Estate Field Inspection
Photos taken on 5/21, 6/4, 9/1/93

Photos 1, 2 & 3 Three views of Pump 2, Well 4159-01.

Pump 2, Well 4159-01, has two 40 hp pumps with capacities of 645 gpm and 6" intakes to withdraw water from a concrete sump.

The white shed in the top photo contains the Air Force cased Well, 4159-02.

The source of Pump 2, shown in the middle photo, is an artesian spring which upwells near an edge of the sump canal.

Pumpage is recorded by a McCrometer meter, serial # 93-6-00152, read 25,575,100 on 5/21/93 located at the arrow in the bottom photo.
9/20/93
THIS REPORT of 10/10/90 SUPERCEDED. Information regarding 4159-02 incorrect. Only 4159-01 described within this report. The source for 4159-01 is an artesian spring that flows into a concrete sump, not a drilled well. Campbell Estate now operates this well -- Neither Amorent nor Kuilima are currently connected with this well.
FIELD MEMORANDUM

DECLARANT (File Reference)  KUILIMA RES  DATE 10/10/90
PRESENT Allan Parker, Construction Manager; Mitchell Ohye and Anne Okamura, field team
LOCATION Kahuku, TMK 5-6-3:43

SOURCE(S) Inspected Wells 4159-01 and 02, were trying to locate 4258-01 to 03.
These wells have been sealed, and are most likely buried.

USE(S) 4159-01 and 02 are used for construction purposes.

FIELD NOTES  Field inspection lasted from 10:45 to 11:15 AM. Weather was sunny. Met Mr. Parker at the golf course parking lot of the Turtle Bay Hilton. He was not sure of the location of the wells, and neither were the people he phoned. He took us to the site of the only wells he knew of on Kuilima land, 0.6 miles towards Laie from the entrance of the resort. The tax maps indicate that this land is owned by Campbell Estate. The site we visited had a sump which resembled a concrete-lined drainage canal located next to a building which housed six old booster pumps which were not being used. Two 40 HP pumps, each with a 6" intake pipe, were being used to take water from the sump. A single 6" line led from the pumps, around the pump house, to a storage tank on a truck. Water is being used during construction on the adjacent and nearby areas.

Wells inspected were not the wells reported in the declaration. Wells 4258-01, 02, and 03 were sealed in 1939, 1957, and 1939, respectively. They were also farther away from the highway than the wells visited. Most likely, these wells would be impossible to locate in the field as they have probably been buried. The wells which were inspected appear to be Wells 4159-01 and 02, which are owned by Campbell Estate and were registered by Amorient, Inc. Amorient is aware that Kuilima is using water from their wells during the construction of the new golf course. The well index has a reported combined capacity for the two wells of 4.2 MGD.
FIELD INSPECTION INFORMATION CHECKLIST

PART I: USE OF WATER

Declarant's File Reference: KUOLUMA REG

1. Tax Map Key where the water is used: 5 - L - 3 - 43. Does the declarant own this land? Unsure. If not, who does? Unsure.

2. What is the water used for? Construction.
   If for irrigation, how many acres are being irrigated by crop type? N/A.
   If for drinking, at how many houses? N/A by how many people? N/A.

3. Is the quantity of water use being measured? No. If yes, document the location of the measurement point and method of measurement; also get use records if these were not submitted previously. N/A.

4. If this person takes from a multi-user pipe or ditch system: N/A.
   How is the water taken from the system? ____________________________
   What is the capacity for taking (gpm)? ____________________________
   How often is it taken (used)? ____________________________

PART II: WATER SOURCE

Source #: 4159-01-02. Name: Kahuku P2 Battery.

1. Where does the water come from / what kind of source is this? Two drilled wells.

   Types of sources include:
   1) Wells (drilled, dug, tunnel)
   2) Diversions (ditch, pipe, or pump from a stream, spring, swamp, pond)
   3) Multi-source systems. (Declared use cannot be traced to a single well or diversion)

   NOTE: If a multi-user system: take from pipe or ditch (need to determine whether this is a multi-source or single-source system before the data can be input to the computer.
   4) Instream (i.e., livestock drink from stream, or crops planted along water edge)

2. Show the source location on maps, determine latitude and longitude, and document the nature of source development by measurements, sketches, and photographs. How is the water taken? Two 40-HP pumps w/ 6" intake.
   What is the capacity for taking (gpm)? From well index: combined cap = 42 MGP.
   How often is it taken (used)? N/A.

3. Tax Map Key at the source: 5 - L - 3 - 43. Determine declarant's relation to source. Does the declarant:

   1) Operate and maintain the source? Yes. If not, who does? N/A.
   2) Own the land at the source? Unsure. If not, who does? Unsure.
   3) Use the water from this source? Yes. If not, who does? N/A.
   4) Own the land where the water is being used? Unsure.

4. Does any one else also use water from this source? No. If yes, is their use included in this user's declaration? N/A. Who are the other users? Did they file? N/A.

VERIFIED BY: Mitchell Ohye & Anne Okamura. DATE: October 10, 1990

Visited source believed to be Wells 4258-01 to 03. Most likely these wells.
AMORIENT filed for these sources. They operate. Kuilima using water during construction.
Water truck - used to transport water for construction site.
Four new pumps installed on Well 4159-01, Pump 2. Combined capacity of 1500 gpm. - Pumps gone. 2-40 hp remain capacity 1290 gpm
PART I: USE OF WATER

Declarant's File Reference: 4/169-065

1. Tax Map Key where the water is used: 5-7-J-21-250. Does the declarant own this land?  No.
   If not, who does?  Campbell Estate.

2. What is the water used for?  Irrigation of truck crops; construction (halftime).
   If for irrigation, how many acres are being irrigated by crop type?  N/A.
   If for drinking, at how many houses?  N/A. By how many people?  N/A.

3. Is the quantity of water used being measured?  No. If yes, document the location of the measurement point and method of measurement; also get use records if these were not submitted previously.  N/A.

4. If this person takes from a multi-user pipe or ditch system:  N/A.
   How is the water taken from the system?  N/A.
   What is the capacity for taking (gpm)?  N/A.
   How often is it taken (used)?  N/A.

PART II: WATER SOURCE

Source #: 4/169-065  Name: Kohuku P2

1. Where does the water come from / what kind of source is this?  Drilled well, Artesian spring flows into old plantation sump 4/73.
   Types of sources include:
   1) Wells (drilled, dug, tunnel)
   2) Diversions (ditch, pipe, or pump from a stream, spring, swamp, pond)
   3) Multi-source systems. (Declared use cannot be traced to a single well or diversion)
   NOTE: If a multi-user system: take from pipe or ditch (need to determine whether this is a multi-source or single-source system before the data can be input to the computer)
   4) Instream (i.e., livestock drink from stream, or crops planted along water edge)
   Show the source location on maps, determine latitude and longitude, and document the nature of source development by measurements, sketches, and photographs.
   How is the water taken?  Two 1/4 HP pumps.  9/93.
   What is the capacity for taking (gpm)?  4000-4500 gpm (2000-2500) 1290 gpm.
   How often is it taken (used)?  Continuously.

2. Tax Map Key at the source: 5-6-8-63. Determine declarant’s relation to source. Does the declarant:
   1) Operate and maintain the source?  Yes.  If not, who does?  N/A.
   2) Own the land at the source?  Yes.  If not, who does?  Campbell Estate.
   3) Use the water from this source?  Yes.  If not, who does?  N/A.
   4) Own the land where the water is being used?  No.  Yes.

3. Does anyone else also use water from this source?  Yes.  If yes, is their use included in this user’s declaration?  No.  Who are the other users? Did they file?  Report filed, but not for this well.

VERIFIED BY:  Neal Fuji / Anne Oshawa.  DATE: April 17, 1991.

Relisted 4/93 Susan Sekum
Pump house contains six booster pumps for water from Well 4159-01, Pump 2. Building gone 9/93.

Booster pumps for water from Well 4159-01, Pump 2.
Photo 1: View of Pump 2
This is the main intake into the irrigation system

Photo 2: Pump 2A out to ditch
This is a supplemental feed to the ditch

Photo 3: View up the ditch
At left is the trench from Pump 2A

Photo 4: View towards the berm at artesian outlet
The sand berm can restrict inflow from marsh, if required

Photo 5: Artesian source
This is another supplemental feed to the ditch

Photo 6: Source at golf course
This is the previous main supply to the ditch

Exhibit S1
Photos
Exhibit 2
Chlorides at various points taken on 12/16/97
CAMPBELL ESTATE PUMPAGE
PUMP 2 (Well No. 4159-01)

MONTHLY VALUES

REQUESTED AMOUNT

Month (Latest Data 10/93)
Crop Area presently served by 4159-01

Crop Area irrigated from Existing Water Allocation at KP-2 (814,000 gpd)

KP-2 Pump
KP-2 Pipeline
Diversified Crop Area
Ryan,
Here's my thoughts,

I checked an old print out of the well data base. maybe 5-7 years old..the same info, i.e., 12" casing was listed for both sources...but the info was only good for one of the two.

I can trace our use of the 4159-01 for pump 2
and 4159-02 for the Punamana well back to the late '80's.. we may have records further back but they weren't in the well folder. Many users have used wells in the area...lots of them have gone out of business - that's why you see so many names the records have kept under.

Take any info from Linden Burzell of Amorient with a grain of salt.. he took an early field inspection crew to the wrong wells - a source of misinformation. I think his Decl of Water use form was wrong too...

Any sketches we make should have enough well known reference points like Kam Hwy or the ocean to orient the sketch..
The army well is a separate source which could dump water into the ditch – Campbell could have initiated that to maximize the water available to them...they didn't have use of that well before..

Anyone looking at a sketch may not take the time to read the whole well record so the concept of how the system works needs to be clear and simple...I copied one of Mitch's sketches was in the well file here..

If we look back into the record..the army well is potable and chlorinated..the chlorides are less than the irrigation well/spring loosely called "Pump 2"

There was a summary page copied out of some publication (do you know what the source was?) showing chlorides over time....it's probable that 341A (4159-02) is the army well (low chlorides)
Anyway it agrees with our numbering..

The board of water supply used to read the Pump two meter inside the old wooden pump house, pressure gauges on the pumps and/or reading the electric meters on the front of the house (it was an old wooden converted plantation house) then fudging a water use figure out of it..no telling how accurate that was..

I read meters at that source for 5 years at the BWS...when I look back at the list of meters I was reading it said 4159-01 & 02...but I know we weren't including any water from the army well Punamanu in that reading.  

Susan
Kahuku Region Representative Salinity
(Chloride in mg/l)

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**DATA SOURCES:**

- Territory of Hawaii Division of Hydrography, Bulletin 1, Bulletin 5.
- Board of Water Supply.
- 1980-81 and 1988 chloride calculated from specific conductivity by formula:
  \[ \text{Chloride} = 0.309(\text{specific conductivity}) - 47 \]
4159-01 withdrawal from sump
AMOCIENT Pumps (2)
4.5 GPM EA. @ 100' TDH

KAILIMA RESERVOIR PUMP

CONCRETE LINED SMP

DITCH & SUMP

WELL 4159-02

WELL 4159-01

KAILUKU PUMP No. 2
WELL No. 4159-01, 02

SPRING SOURCE
To whom it may concern:

1. KP-2 was installed during the early days of Kahuku Sugar Company, Ltd. ("KSCo"), most likely in the late 1890’s. There is no record of the exact date of installation. It was the only irrigation water source for all sugarcane fields on the Waimea section of the plantation. The water source at KP-2 was normally composed of two (2) different natural artesian sources that were collected in a channel leading to the sump of the KP-2 pumping station:

   a. A fresh water spring close to the KP-2 pumping station; and

   b. A saltier source channeled in from the marsh closer to the ocean.

A third artesian source at times was also used, when supplementary water was required; this water was from the KP-2A 12” well casing located close to the KP-2 pumping station (see Item No. 4 below).

2. Most of the crop area was irrigated directly from the KP-2 ditch, but several fields above the ditch were irrigated from booster-pumped water. Booster Pump #4 lifted water from Pump #4 Reservoir to the ditch at the top of the upper fields. Booster Pump #16 lifted water directly from the KP-2 ditch to several fields on top of the bluff (see Exhibit “A”).

3. Four (4) small pumps in the general area irrigated by KP-2 water were used mainly for providing domestic water to three (3) plantation labor camps and Kahuku Air Base (see Exhibits “B” and “C”).
4. The KP-2A supplementary irrigation water source was controlled by a 12" gate-valve on the side of the 12" well casing, bringing deep well water to the surface. It was opened as needed throughout the year, but was used most heavily during the summer peak-use period, with the valve being kept open 24-hours a day. The water flowed from the 12" casing into the collecting channel through a rock-lined ditch. This system was observed in use from 1931 until the shutdown of KSCo in March 1971; the actual installation of the KP-2A 12" well and ditch was earlier than that, but the exact date is not known.

5. Sugarcane was grown continuously in the area shown in Exhibit “A” from the initial plantings in the late 1890’s and early 1900’s until the plantation closed in 1971, except for the makai area withdrawn for Kuilima development in 1969.

Respectfully submitted by:

Tom Nakayama
former Field Superintendent of Kahuku Sugar Co., Ltd.
Employment period: 1931-1971

Dated: Dec 11, 1997

Dan Kahawai
former Irrigation Supervisor of Kahuku Sugar Co., Ltd.
Employment period: 1936-1969

Dated: Dec 11, 1997
LEGEND

Kahuku Sugar Co., Ltd.
Crop Area Irrigated from KP-2 Water Source in the Waimea Section - 1964

- KP-2 Source - Direct
- KP-2 Source & Pump 4 Booster Pump
- KP-2 Source & Pump 16 Booster Pump

R. H. TOWILL CORPORATION
233 MERCHANT STREET   HONOLULU, HAWAII
CIVIL ENGINEERS SURVEYORS, PHOTOGRAMMETRIC ENGINEERS

CAMPBELL ESTATE
LANDS SITUATED AT KAHUKU, KOOLAULOA
OAHU, HAWAII

SCALE IN FEET

DATE OF PHOTOGRAPHY 5-12-64   DATE 6-9-64
DOMESTIC WATER SOURCES FOR THE
WAIMEA SECTION OF KAHUKU SUGAR CO., LTD.

<table>
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<tr>
<th>Pump Name</th>
<th>GPM Capacity</th>
<th>State Well No.</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>KP-17C (for Camp 3)</td>
<td>180</td>
<td>338</td>
<td>4100-01 Also used to supply water to steam locomotives for haul cane cars along highway</td>
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<tr>
<td>KP-19 (for Kawela Bay)</td>
<td>115</td>
<td>338-1</td>
<td>4100-02</td>
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<td>KP-18 (for KAB)</td>
<td>350</td>
<td>339-A</td>
<td>4158-12 Also used to provide low chloride artesian flow into the KP-2 sump for supplemental irrigation, through a 12&quot; gate valve on the 12&quot; well casing.</td>
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<td>KP-17B* (for Camp 2)</td>
<td>200</td>
<td>341-B</td>
<td>4159-02</td>
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*Now known as KP-2A.
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<tr>
<th>State No</th>
<th>Old No</th>
<th>Elev</th>
<th>ElevBot</th>
<th>ElevBotCsq</th>
<th>Chloride</th>
<th>StaHD</th>
<th>PRate</th>
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Notes:
- **Elev**--Elevation (ft)
- **ElevBot**--Elevation Bottom (ft)
- **ElevBotCsq**--Elevation Bottom of Casing (ft)
- **Chloride**--in mg/l
- **StaHD**--Static Head (ft)
- **PRate**--Pump Rate (gpm)
- **AvDr**--Average Draft (mgd)
AMENDMENT TO AGRICULTURE LAND.
KAUAI FIELD IRRIGATION SYSTEM.

Pump 2
4" BLANKET AVE.
60 HP, 3500 RPM, 670 GPM
4000 GPM CHAIR, 40-90 PSI

FIELD 5
1014' B TOWER (900')
400 GPM @ 72 PSI, 55 A C, 600' PVC C/I

FIELD 2
970' B TOWER (1000')
450 GPM @ 68 PSI, 58 AC

FIELD 3
1204' 10 TOWER (1500')
450 GPM @ 65 PSI, 112 AC

FIELD 1
1014' B TOWER (1500')
750 GPM @ 75 PSI, 110 AC

AVC SUPPLY LINE
TRANSITE SUPPLY LINE
1" RISER W/ WESTERN VALVE
NOT TO SCALE
WELL MODIFICATION PERMIT

TO: Mr. O.K. Stender
The Estate of James Campbell

Your application of May 5, 1986 has been approved in accordance with Chapter III of our Rules and Regulations for the Protection, Development and Conservation of Water Resources in the City and County of Honolulu.

You are hereby granted a permit to modify Well No. 4159-01, 02 (Kahuku Sugar Co., Pump No. 2) at 5-6-3:43, and in accordance with the plans provided with your application.

This permit is granted subject to the Rules and Regulations of the Board of Water Supply and the following conditions:

1. Mr. Chester Lao of the Board of Water Supply shall be notified before any work covered by this permit commences.

2. A master meter shall be installed before the sub-lessee's connections, and that reading shall be submitted to the Board of Water Supply on a monthly basis.

KAZU HAYASHIDA
Manager and Chief Engineer
Board of Water Supply

5/9/86
Date of Permit

cc: Dr. Linden A. Burzell
We recommend approval of the Well Modification Permit for Well No. 4159-01, 02. The modification of this well will give us a more accurate account of water use in the Kahuku area.

HERBERT H. MINAKAMI

cc: C. Lao
25 April, 1986

Board of Water Supply
City and County of Honolulu

Attn: Mr. Chester Lao

Subject: Well Modification Permit
Well No. 4159-01/02
Kahuku Sugar Co. Pump 2

Dear Chester,

Pursuant to our recent discussions, we submit herewith our application to modify the pumping station at Pump 2. The primary purpose of the modifications is to improve the capacity of the system to deliver water to our sub-lessees who will soon be planting our former corn lands in a variety of vegetable crops.

Since they plan to use a combination of drip and small sprinkler irrigation, they require better pressure regulation than the existing pumps can supply; Roscoe Moss's proposal (copy included) should rectify this.

Please note that the modifications will somewhat reduce the maximum pumping rate, since two of the six existing pumps will be taken out of service and the overall maximum operating pressure will be reduced. The conversion to partial drip makes it possible to live with the smaller total yield.
Note also that all subtenants using the system are required by the terms of their lease to meter all connections to this system; we will therefore be able in the future to report actual metered volumes as opposed to extrapolations from electric meter readings as a present.

If you have any questions, please give me a call.

Yours truly,

AMORIENT AQUAFARM, INC.

Linden A. Burzell, Ph.D.
General Manager

Encl.

cc: Mr. Sam Keala
    Estate of James Campbell
March 11, 1986

Attention: Ed McSweeny

Reference: Proposal to Supply and Install one (1) Duplex Constant Speed Skid-Mounted Pump Package.

Gentlemen:

This proposal is to supply two (2) each constant speed vertical turbine pumps, complete with piping, butterfly valves, check valves, hydraulic pressure regulating control valve and a 250 gallon hydraulic control tank and a pre-wired electric control panel complete with hard-wired relay logic to control the pumps.

The proposed vertical turbine pumps are arranged and controlled in such a manner as to provide pumpage from 200 GPM to 1,290 GPM at a constant system pressure of 40 PSI. The pumps are electrically interconnected by the motor control which provides the lead lag logic circuitry required to maintain parallel pumpage.

The basic package is mounted on a structural steel skid arranged in such a way as to span the existing concrete intake structure at the Kahuku pump #2 site.

The pumps will operate as follows:

The lead pump will start when the system pressure falls below 35 PSI which activates a set point on the pressure switch. The lead pump will stop when the flow rate falls to a field determined value and will be indicated by the check valve and a position switch. Both pumps are provided with minimum run timers, which have field adjustable capability.

The lead pump will be a Peerless short coupled vertical pump model 10MA and is sized to produce 645 GPM @ 160' TDH. The pump and motor will operate at 3,540 RPM and will require a 480V, 3 phase electrical power service. The lag pump is similar to the lead pump and is a Peerless model 10MA which is sized to produce 645 GPM @ 160' TDH.
The lag pump like the lead pump will start on pressure drop when the tank mounted pressure switch reaches a set point of 30 PSI. Both lag and lead pumps are electrically and mechanically interlocked to provide a start on falling pressure only. When the lag pump starts it will remain in the system and will maintain the system pressure at approximately 30 - 40 PSI for all flow demands between 650 GPM and 1,290 GPM. Both the lead and the lag pumps have in their electrical control logic adjustable minimum run timers to prevent short cycle nuisance stops.

Parallel pumping will occur when the system drops below a field determined pressure set point which will occur when the lead pump cannot supply the demand. The lag pump will automatically come into the system to provide the parallel pumping. The lag pump will then remain in a parallel pumping mode until the system demand drops below 650 GPM. All lead and lag stop set points are controlled by micro switches mounted on the clo-valve operating stem.

When the lag pump is dropped off the system the lead pump continues to operate until a 200 GPM set point on the clo-valve is reached and provided that the system pressure exceeds 35 PSI. At this point the lead pump will shut down.

We propose to provide all of the foregoing equipment mounted on a skid, completely wired and connected to the existing 16” discharge pipeline. This proposal proposes to use two of the 60 horsepower magnetic starters now located in the pump #2 building.

The duplex control panel will be locally provided and will be fabricated by Pacific Electro Mechanical who will design the system logic, design and fabricate the panel, provide field installation adjustment and startup service.

All of the foregoing is quoted lump sum in place and tested $27,345.00.

Very truly yours,

Bill Moore, Manager
Pump Sales/Service

Exceptions:

1) Amorient Inc. will clear and grub the area around the concrete intake structure as there now exists considerable jungle growth.

2) Amorient will remove the the beehive in the pump house.
SPECIFICATIONS - PUMPS

MOTORS: NP-1 - 70 HP, 480 VOLT
60 Hertz
3600 RPM
VOLTEL HOLLOW SHAFT CENTER GULL

DISCHARGE HEAD
CAST IRON - 10 x 10 x 16"
STUFFING BOX - PULLED BASE PLATE - CAST IRON

COLUMN: 6" Dia - STEEL

SHFT: 1 1/16" Dia - 416 ST. ST.

BOWL: CI. SHELLS
BRONZE IMPPELLERS
4 1/2 ST. St. BOWL SHFT
BASKET STRAINER

TANK: 36" Dia
75" QA.
398 GALLONS
150 PSI @ 500°F. A.M.E

VALVE: METRA FLEX - CNT. GUIDED CHECK

Piping: STEEL

SKID: STRUCTURAL STEEL PRIMED IN SIZES INDICATED
APPLICATION FOR DRILLING, MODIFYING, RECASING OR REUSING WELLS

INSTRUCTIONS: Please send 1 copy to Honolulu Board of Water Supply, who will distribute to other agencies concerned. In filling out, refer to Rules and Regulations of the Honolulu Board of Water Supply adopted on May 10, 1976 and applicable rules and regulations of the State Department of Health.

OWNER: (See BWS Rules and Regulations Chapter III, Sec. 3-305, Item 1a)

THE ESTATE OF JAMES CAMPBELL

ADDRESS:

APPLICANT: AMORIENT AQUAFARM

KAHU, HAWAII

1. APPLICATION FOR WELL: (See Chapter III, Sec. 3-305, Item I)

Drill  _____  Reuse  _____
Modification  X  Recase  _____
Change in use  _____

2. WORK TO BE PERFORMED BY: (See Chapter III, Sec. 3-311)

Roscoe Moss Company

WR 900 (Rev. 10-76)
APPLICATION FOR DRILLING, MODIFYING, RECASING, OR REUSING WELLS

3. USE OF WELL: (See Chapter III, Sec. 3-305, Item 1c)

NO CHANGE; TERRESTRIAL AGRICULTURAL IRRIGATION AND AQUACULTURE

4. ATTACHMENTS: (Each copy of the application shall have a complete set of attachments)

(a) Location of well: WELL No. 4/15-01/02
    Tax Map Key: 5-6-3:43

(b) Land area served: (Attach map showing exact location of well and area served. See Chapter III, Sec. 3-305, Items 1b and 1d)

    NO CHANGE

(c) Description of well and appurtenant details:
(See Chapter III, Sec. 3-305, Item 1e)

UNCHANGED, EXCEPT FOR MODIFICATIONS

INDICATED IN ATTACHED PROPOSAL FROM

ROSCOE MOSS CO. PURPOSES OF MODIFICATION:

(1) TO PROVIDE CONSTANT PRESSURE UNDER VARYING DEMAND

(2) TO AUTOMATE / SIMPLIFY OPERATION OF PUMP STATION

(3) FLOW METERS TO BE INSTALLED FOR EACH SUB.LESSEE USING THE SYSTEM, THEREBY IMPROVING ACCURACY OF FLOW MEASUREMENT (NOW BASED ON ELECTRIC METER READINGS).
5. The Owner hereby agrees to install, operate, and maintain control of the well in accordance with the laws of the State of Hawaii and the Rules and Regulations of the Honolulu Board of Water Supply and the State Department of Health.

The Owner hereby understands that a fee of One Hundred Dollars ($100.00) and a permittee bond of the amount not greater than Twenty-five Thousand Dollars ($25,000.00), said amount of the bond to be set by the Engineer, are required for the drilling or excavation of each new well. The $100.00 fee per well shall be payable to the Board and shall accompany this application. The amount of the permittee bond shall be stipulated when the well owner is notified that his permit has been granted.

(See Chapter III, Sec. 3-305, Items 2 and 2a)

6. The Owner hereby agrees to the following special conditions for this well:

25 April 1986
Date Submitted

Signature of Owner

Name of applicant if other than Owner
Amorient Aquafarm, Inc.
TO: Mr. O. K. Stender  
The Estate of James Campbell  
828 Fort Street Mall, Suite 500  
Honolulu, Hawaii 96813  

Your application of February 4, 1980 has been approved in accordance with Chapter III of our Rules and Regulations for the Protection, Development and Conservation of Water Resources in the City and County of Honolulu.  

You are hereby granted a permit to modify and reuse Well No. 4159-01 and 02 at TMK: 5-6-03; 43, at the location as shown on the plans and in accordance to the specifications presented in your application.  

This permit is granted subject to the Rules and Regulations of the Board of Water Supply and the following conditions:  

1. Mr. Chester Lao, [redacted], of the Board of Water Supply shall be notified before any work covered by this permit commences.  
2. The average amount of water withdrawn per month from this well shall be determined by Campbell Estate. The Estate will allocate this amount based upon current estimates of sustainable yield in the area.  
3. A flow meter shall be installed and pumpage reported monthly to the Board of Water Supply.  

KAZU HAYASHIDA  
Manager and Chief Engineer  

MAR 6 1980  
Date of Permit  

Pure Water... man's greatest need – use it wisely
TO: Mr. O. K. Stender
The Estate of James Campbell

Your application of February 4, 1980 has been approved in accordance with Chapter III of our Rules and Regulations for the Protection, Development and Conservation of Water Resources in the City and County of Honolulu.

You are hereby granted a permit to change the use of Well No. 4159-01 and 02 at TMK: 5-6-3: 43, at and for the location shown on the map, and only for the use indicated in the application.

This permit is granted subject to the Rules and Regulations of the Board of Water Supply and the following conditions:


MAR 6 1980
Date of Permit

KAZU HAYASHIDA
Manager and Chief Engineer
BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU

APPLICATION FOR DRILLING, MODIFYING, RECASING OR REUSING WELLS

INSTRUCTIONS: Please send 1 copy to Honolulu Board of Water Supply, who will distribute to other agencies concerned. In filling out, refer to Rules and Regulations of the Honolulu Board of Water Supply adopted on May 10, 1976 and applicable rules and regulations of the State Department of Health.

OWNER: (See BWS Rules and Regulations Chapter III, Sec. 3-305, Item 1a)

Campbell Estate

ADDRESS:

1. APPLICATION FOR WELL: (See Chapter III, Sec. 3-305, Item I)

Drill _____ Reuse X
Modification X Recase _____
Change in use _____

2. WORK TO BE PERFORMED BY: (See Chapter III, Sec. 3-311)

Lowe, Inc.

900 (Rev. 10-76)
3. USE OF WELL: (See Chapter III, Sec. 3-305, Item 1c)

Agricultural purposes (terrestrial crops)

4. ATTACHMENTS: (Each copy of the application shall have a complete set of attachments)

a. Location of well: Kahuku, Hawaii Wells 4159-01 and 02

Tax Map Key: 5-6-03-43

b. Land area served: (Attach map showing exact location of well and area served. See Chapter III, Sec. 3-305, Items 1b and 1d)

See map attached area outlined in red.

c. Description of well and appurtenant details:
(See Chapter III, Sec. 3-305, Item 1e)

Well Nos. 4159-01 and 02 (Kahuku Sugar Pump 2) 250 hp

16x16 Split Case Worthington (rated at 8500 gpm at 35 psi). Replaced by 6 ea 5x4 B-4E PBL Berkeley

Centrifugal rated for 520 gpm at 125 psi.
5. The Owner hereby agrees to install, operate, and maintain control of the well in accordance with the laws of the State of Hawaii and the Rules and Regulations of the Honolulu Board of Water Supply and the State Department of Health.

The Owner hereby understands that a fee of One Hundred Dollars ($100.00) and a permittee bond of the amount not greater than Twenty-five Thousand Dollars ($25,000.00), said amount of the bond to be set by the Engineer, are required for the drilling or excavation of each new well. The $100.00 fee per well shall be payable to the Board and shall accompany this application. The amount of the permittee bond shall be stipulated when the well owner is notified that his permit has been granted.

(See Chapter III, Sec. 3-305, Items 2 and 2a)

6. The Owner hereby agrees to the following special conditions for this well:

NONE

Date Submitted

Signature of Owner

Name of applicant if other than Owner