COMMISSION ON WATER RESOURCE MANAGEMENT

FROM: ROY
DATE: MAY 28 2009
SUSPENSE DATE:

TO: CHENG, C.
INIT. TO: MILLS, D.
CHING, F. INIT: III
CHONG, R. FOR: Approval
DANBARA, S. Signature
ENGLAND, D. Information
FUJII, N. SAKODA, E.
HARDY, R. SWANSON, S.
HOAGBIN, S. TORRES, R.
ICE, C. UYENO, D.
IMATA, R. YODA, K.
KAWAHARA, K. YOSHINAGA, M.
KIMURA, J.

PLEASE:
See Me
Review & Comment
Take Action
Type Draft
Type Final
File
Xerox ___ copies

For will nos. file 1806-09 & 10.
May 27, 2009

Mr. Ken C. Kawahara, P.E.
DLNR, Commission on Water Resource Management

RE: Final Environmental Impact Statement (FEIS); Proposed 3rd Boiler Expansion of H-POWER Energy-from-Waste Facility, Kapolei, Hawaii

Dear Mr. Kawahara, P.E.,

A copy of the Draft Environmental Impact Statement (DEIS) for the expansion of the H-POWER facility located in the Campbell Industrial Park area of Honolulu County, Hawaii was sent to you in January 2009. The DEIS was published in the Office of Environmental Quality Control (OEQC) Environmental Notice on January 23, 2009. Comments received during the DEIS comment period have been incorporated into the FEIS document. The FEIS was published in the May 23, 2009 OEQC Environmental Notice. As you were identified in the OEQC Participants list and received the DEIS, we are submitting for your review the FEIS.

In keeping with our goal of reducing waste and being “green”, the FEIS can be viewed on the OEQC website, http://hawaii.gov/health/environmental/oeqc/index.html/ and at the following public libraries.

Kapolei Public Library

Hawaii State Library

Pearl City Public Library

City, HI 96782

If you have any questions regarding this letter, please feel free to call me at [redacted] Dr. Russell Okoji of AMEC at [redacted]

Sincerely,

S. Samuel Joshi, P.E., QEP
Manager, Environmental Engineering
Covanta Energy Corporation
May 6, 2009

Mr. Ken C. Kawahara, P.E.
Deputy Director
State of Hawaii
Department of Land and Natural Resources
Commission on Water Resources Management

Subject: Draft Environmental Impact Statement (DEIS);
Proposed 3rd Boiler Expansion of H-POWER Energy-from-Waste Facility, Kapolei, Hawaii

Dear Mr. Kawahara:

Thank you for your letter dated February 19, 2009, concerning the Draft Environmental Impact Statement for the Proposed 3rd Boiler Expansion of H-POWER Energy-from-Waste Facility located in Kapolei, Hawaii. We appreciate your participation in the environmental impact statement review process and have the following responses to your comments, which are numbered in accordance with your comment check list.

Comment 5: We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events.

Response 5: BMPs will be the main resource to ensure the prevention of storm water pollutants entering storm water systems and state waters. Covanta Honolulu Resource Recovery Venture is also in the process of complying with all NPDES general permit coverages, which include the facility's Storm Water Pollution Control Plan and Storm Water Monitoring Plan and a site-specific Construction Storm Water Pollution Control Plan. These plans outline all BMPs and maintenance/monitoring programs that will be put into place to ensure effectiveness and achievement of expected performance standards.

Comment 6: We recommend the use of alternative water sources, wherever practical.

Response 6: Alternative water sources were discussed during application of the water use permit through DLNR. If alternative water resources become available, CHRRV will work with the CWRM to re-evaluate the potential for alternative water sources.

Comment 7: There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

Response 7: The State Department of Health will be involved with this project throughout the review process. Permits from the Department of Health's Clean Air Branch, Clean Water Branch, Safe Drinking Water Branch, and Solid and Hazardous Waste Branch will all be completed prior to any construction activities. The Department of Health was also provided with the opportunity to comment on all sections of the DEIS.
Comment 17: We would like to update the information on pages 4-46 and 4-53 of the report regarding the proposed modification of the water use permit for the two onsite withdrawal wells (Well Nos. 1806-09 & 10). On December 17, 2008, CWRM approved the water use permit modification application to allow up to 3.34 mgd (based on a twelve-month moving average) to be withdrawn from the two wells for industrial use at the H-Power facility. The modified permit still contains the provision that the CWRM may revoke the permit if an alternative source of water becomes available.

There appears to be a typographical error in the first sentence of Section 7-2-4 (page 7-4) in the citation of the State Water Code - should it be "Chapter HRS 174C"?

Response 17: We will update and correct typographical errors as noted in this comment.

If you have any questions regarding this letter, please feel free to call me at [] or Dr. Russell Okoji of AMEC at [].

Sincerely,

[Signature]

S. Samuel Joshi, PE, QEP
Manager, Environmental Engineering
Covanta Energy Corporation
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Total Postage & Fees: $5.49

FEB 12, 2009
Postmark: Here

Mr. William Goldate
Covanta Honolulu Resource Recovery Venture
c/o Covanta Energy Corporation

(Usps No. 862)
Certified Mail Provides:
- A mailing receipt
- A unique identifier for your mailpiece
- A record of delivery kept by the Postal Service for two years

Important Reminders:
- Certified Mail may ONLY be combined with First-Class Mail® or Priority
- Certified Mail is not available for any class of international mail.
- NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. For valuable items, please consider Insured or Registered Mail.
- For an additional fee, a Return Receipt may be requested to provide proof of delivery. To obtain Return Receipt service, please complete and attach a Return Receipt (PS Form 3811) to the article and add applicable postage to cover fee. Endorse mailpiece "Return Receipt Requested". To receive a fee waiver for a duplicate return receipt, a USPS postmark on your Certified Mail receipt is required.
- For an additional fee, delivery may be restricted to the addressee or their authorized agent. Advise the clerk or mark the mailpiece with the endorsement "Restricted Delivery".
- If a postmark on the Certified Mail receipt is desired, please present the article at the post office for postmarking. If a postmark on the Certified Mail receipt is not needed, detach and affix label with postage and mail.

IMPORTANT: Save this receipt and present it when making an inquiry.

PS Form 3800, August 2006 (Reverse) PSN 7530-02-000-9047
Mr. William Goldate  
Covanta Honolulu Resource Recovery Venture  
c/o Covanta Energy Corporation  
40 Lane Road  
Fairfield NJ 07004  

**COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete 4 if Restricted Delivery is desired.
- If you name and address on the reverse that we can return the card to you.
- Attach this card to the back of the mailpiece, on the front if space permits.

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- Express Mail
- Registered
- Return Receipt for Merchant
- Insured Mail
- C.O.D.

4. Restricted Delivery? (Extra Fee)

- Yes | No

**Article Number**

(WUP No. 863)  
(Transfer from service label)  

**PS Form 3811, February 2004**

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Mr. William Goldate  
Covanta Honolulu Resource Recovery Venture

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For delivery information visit our website at www.usps.com®
Certified Mail Provides:
- A mailing receipt
- A unique identifier for your mailpiece
- A record of delivery kept by the Postal Service for two years

Important Reminders:
- Certified Mail may ONLY be combined with First-Class Mail® or Priority Mail®
- Certified Mail is not available for any class of international mail.
- NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. If valuables, please consider Insured or Registered Mail.
- For an additional fee, a Return Receipt may be requested to provide proof of delivery. To obtain Return Receipt service, please complete and attach a Return Receipt (PS Form 3811) to the article and add applicable postage to cover the fee. Endorse mailpiece "Return Receipt Requested". To receive a fee waiver for a duplicate return receipt, a USPS® postmark on your Certified Mail receipt is required.
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IMPORTANT: Save this receipt and present it when making an inquiry.

PS Form 3800, August 2006 (Reverse) PSN 7530-02-000-9047
December 19, 2008

Ref: wup 863.appr.doc

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. William Goldate
Covanta Honolulu Resource Recovery Venture

Dear Mr. Goldate:

Modification of Water Use Permit
WUP No. 62 to WUP No. 863, for Well Nos. 1806-09 and -10
Malakole Ground-Water Management Area, Oahu

This letter transmits your water use permit for the H-Power Facility Maintenance Wells 1 and 2 (Well Nos. 1806-09 and -10). Your permit, which was approved by the Commission on Water Resource Management on December 17, 2008, authorizes use of 3,34 million gallons per day (mgd) of water on a 12-month moving average basis. As part of the Commission's approval, the following special conditions were added and are part of your permit under Standard Permit Condition 19:

Special Conditions

1. Should an alternate permanent source of water be found for this use, then the Commission reserves the right to revoke the permit, after a hearing.
2. In the event that the tax map key at the location of the water use is changed, the permittee shall notify the Commission in writing of the tax map key change within thirty (30) days after the permittee receives notice of the tax map key change.
3. Standard Condition 16 is waived for salt water wells.

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.
We draw your attention to a key condition of your permit that requires your response. Standard Condition 10 requires you to keep a record of your monthly total pumpage, water level, salinity, and water temperature measurements. This information must be submitted routinely to the Commission on a monthly basis using the enclosed water use report form. You should make copies of the enclosed report form as needed. Additional blank forms can be obtained by going to our website at http://www.hawaii.gov/dlnr/cwrm/resources_permits.htm.

If you have any questions, please call Denise Mills of the Commission staff at [missing number]

Sincerely,

LAURA H. THIELEN
Chairperson

Attachments: WUR Form

c: Stephen Langham, City & County of Honolulu
   Glenn Kashiwabara, H-Power
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 921
HONOLULU, HAWAII 96809

GROUND-WATER USE PERMIT
WUP NO. 863

PERMITTEE

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<tr>
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<th>Landowner of Source</th>
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<tr>
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<tr>
<td>Covanta Honolulu Resource Recovery Venture</td>
<td>City and County of Honolulu Department of Environmental Services</td>
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PERMITTED SOURCE INFORMATION

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<td>System Sustainable Yield</td>
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<td>Well Name</td>
<td>Facility Maintenance 1 and 2</td>
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<td>State Well Nos.</td>
<td>1806-09 and -10</td>
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PERMITTED USE INFORMATION

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<td>TMK #</td>
<td>(1) 9-1-026:030</td>
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<td>State land use classification</td>
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<td>County zoning classification</td>
<td>1-2</td>
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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 permittee 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 December 17, 2008, 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. Approved flowmeters must be installed to measure monthly ground-water 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 (see attached form).

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

12. A permit may be transferred, in whole or in part, from the permittee to another, if:
   a. The conditions of use of the permit, including, but not limited to, place, quantity, and purpose of the use, remain the same; and
   b. The Commission is informed of the transfer within ninety days.

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

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

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

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

16. The permittee shall prepare and submit a water shortage plan within 30 days of the issuance of this permit as required by HAR § 13-171-42(c). The permittee's water shortage plan shall identify what the permittee is willing to do should the Commission declare a water shortage in the Malakole Ground-Water Management Area.

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

18. The permittee understands that any willful violation of any of the above conditions or any provisions of HRS § 174C or HAR § 13-171 may result in the suspension or revocation of this permit.

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

[Signature]
LAURA H. THIELEN, Chairperson
Commission on Water Resource Management

Attachment

c: City and County of Honolulu
AGENDA
FOR THE MEETING OF THE
COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: December 17, 2008
TIME: 9:00 a.m.
PLACE: Kalanimoku Building, Conference Room 132

A. APPROVAL OF MINUTES
1. November 19, 2008

B. ANNOUNCEMENTS

C. STREAM PROTECTION AND MANAGEMENT
1. Application for Stream Channel Alteration Permit (SCAP.2030.2), Installation of Culvert Crossing on Pohakuhonu Stream, Kilauea, Kauai, TMK: (4) 5-2-022:025
2. After-the-Fact Application for a Stream Channel Alteration Permit (SCAP.2061.03), Emergency Stabilization of DOT Pedestrian Bridge across Kapaka/Waimanana Stream, Hauula, Oahu, TMK: (1) 5-3-014:003

D. GROUND WATER REGULATION
1. Covanta Honolulu Resource Recovery Venture APPLICATION FOR A WATER USE PERMIT Facility Maintenance Wells 1 and 2 (Well Nos. 1806-09 and -10), TMK (1) 9-1-026:030 WUP No. 863, Modify Existing (Industrial) Use to 3.34 mgd Malakole Ground Water Management Area, Oahu

E. NON-ACTION ITEMS
1. Update on the Implementation of East Maui Interim Instream Flow Standards

F. NEXT COMMISSION MEETINGS (TENTATIVE)
1. January 22, 2009
2. February 18, 2009

The Commission on Water Resource Management’s monthly meeting agenda and staff submittals are now available on our website at http://www.hawaii.gov/dlnr/cwrm.
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 Commission. H.A.R. Section 13-167-52(a).

If you request a contested case hearing and seek 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 (Kauai) 274-3141 ext. 70214, (Maui) 984-2400 ext. 70214, (Hawaii) 974-4000 ext. 70214, (Molokai or Lanai) 1-800-GOV-INHI ext. 70214 or 587-0214 at least three days in advance of the public hearing or meeting to indicate if they have special needs which require accommodation.

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.
MOTION: (Fujiwara/Kiyosaki)
To approve the submittal.
APPROVED. Dr. Miike, Fujiwara, Ching, Kiyosaki

D. GROUND WATER REGULATION

1. Covanta Honolulu Resource Recovery Venture
APPLICATION FOR A WATER USE PERMIT
Facility Maintenance Wells 1 and 2 (Well Nos. 1806-09 and -10),
TMK (1) 9-1-026:030, WUP No. 863, Modify Existing (Industrial) Use to 3.34 mgd; Malakole Ground Water Management Area, Oahu

PRESENTATION BY: Denise Mills

RECOMMENDATION:

Staff recommends that the Commission approve issuance of water use permit no. 863 to Covanta Honolulu Resource Recovery Venture for the reasonable and beneficial use of 3.34 million gallons per day of brackish water from the Facility Maintenance Wells 1 and 2 (Well Nos. 1806-09 and -10) for industrial use at the H-POWER facility. Approval should be subject to the standard water use permit conditions listed in Attachment B and the following special conditions.

1. Should an alternate permanent source of water be found for this use, then the Commission reserves the right to revoke this permit, after a hearing.

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

Commissioner Kiyosaki asked if reclaimed water is referring to R1 water. Denise Mills said the City is looking at the R1 and RO (reverse osmosis) water options. Commissioner Kiyosaki said RO lines are fairly close by and the R1 water may need a longer extension. Denise Mills said she spoke to Stephen Langham and he said that they are considering both options in the draft EIS and that there is R1 water delivery to the area, however understands it’s not to that property. The City is looking at reclaimed water as an alternative water source and that their objective is to move totally to reclaimed water, R1 or RO, and move away from the salt water source.

Commissioner Kiyosaki stated if R1 water can be used to service most of the needs of H-Power, it would be a real boost to reclaimed water usage. Commissioner Kiyosaki would like to see a time schedule to monitor the movement toward recycle water use so that it doesn’t drag out another 10 years without serious study and thought into getting recycled water out to the H-Power plant.

Dr. Miike asked (Exhibit 4 of the submittal) why the Honolulu Resource Recovery Venture is 2.26 mgd, however the 12 month moving average is 1.428. They are asking for 1.08 but they are not really using their capacity, they’re short about 0.8. Dr. Miike asked staff about Hawaiian Electric’s 14.4 and it wasn’t being reported. Roy Hardy explained that it’s salt water and part of the well
construction standards is that we don’t require meters, hence salt water use it is not that high a priority as brackish or freshwater. However, the water below the brackish water is salt water, and we want to make sure the wells are constructed so they are not sucking salt water up into the brackish zone. Mr. Hardy said that in addition there are many injection wells so they put the salt water right back into the ground. Dr. Miike asked if the applicant could explain how they arrived at the 1.08 request when they’re not using the 2.26 (using only 2/3). Frank Doyle explained that they are using the brackish water for cooling purposes, that’s why they don’t need that much quality water, R1 or RO, so it’s basically cooling the condenser in order to take on return steam, cool it and then use the condensate for cooling tower make-up water. Dr. Miike said the use is not always at maximum use so the average is around 2/3. Mr. Doyle said the new facility will not be producing the same amount of steam as the existing two boilers, however it will produce more than that, and the water usage on that side will go up, so that’s another reason for increasing the amount to the 3+ million gallons per day. Dr. Miike stated that you could actually go above the maximum of what the permit is as long as the twelve month average stays below.

Commissioner Ching asked if the aquifer is not managed by volume but by chlorides, is chloride readings requested. Denise Mills said they are required to report chloride readings with their water usage. Ms. Mills explained that the chloride range in this area is from 1,200 parts per million to over 20,000 parts per million, and that 17,000 is the threshold for salt water. H-Power wells draw water with chlorides at 17,000 to 18,000 parts per million and when pumping it’s a localized effect; all the users in the area are industrial users and the chloride isn’t a problem for them. There are no irrigation users in the area. Ms. Mills mentioned that the water is re-injected into this aquifer, so it’s the feedback system of poor water coming out and poor quality water going back in.

Commissioner Kiyosaki asked if there was an environmental study to look at the recycled water issue; Ms. Mills confirmed that there is as one of the elements of the City’s draft EIS. Commissioner Kiyosaki asked whether there was any way to monitor the movement towards recycled water use. Ms. Mills responded, not under the current standards however, one of the standards water use permit conditions for using the brackish water is that they are required to switch within six months once the water is available. Dr. Miike explained that the condition gives the Commission the authority to do that when time comes or faced with decreased [aka less sustainable yield] supply for the amount of uses. It’s a way of the Commission saying that if needed the Commission can alter the permit so permittees have to use an alternative source. Ms. Mills said that one of the special conditions is on page 10 of the submittal, should an alternate source be found for this use, the Commission reserves the right to revoke the permit after the hearing. Commissioner Kiyosaki feels that no one will push reclaimed water unless the Commission does because economically, it’s easier and cheaper to pump fresh water.

MOTION: (Ching/Fujiwara)
To approve the submittal.
APPROVED. (Ching, Fujiwara, Dr. Miike, Kiyosaki)

9:40 a.m.; Dr. Fukino arrived.
Covanta Honolulu Resource Recovery Venture has applied for a modification to its existing water use permit for the City & County of Honolulu's H-Power facility in Kapolei. The current permit allows up to 2.26 million gallons per day (mgd) of saltwater from the Ewa caprock aquifer to be used as a source of industrial cooling water at the facility.

The existing permit was approved by the Board of Land and Natural Resources in 1985, and that permit has not been modified since that time.

The City is planning to expand the H-Power facility to increase the waste processing capacity from 610,000 tons per year to 910,000 tons per year. The expansion will involve adding a third boiler and therefore increase the demand for cooling water to a total of 3.34 mgd. The net increase requested is 1.08 mgd.

Two saltwater wells, which draw water from the Malakole Aquifer System of the Ewa Caprock Aquifer Sector Area, serve as the water source. No additional wells are needed.

The Ewa caprock aquifer is designated as a nonpotable water source and managed differently from other aquifers on Oahu. Instead of using a volumetric sustainable yield as the basis for managing the resource, a limit of 1,000 parts per million of chloride has been established to protect irrigation uses. This limit corresponds to the generally-accepted upper limit of irrigation-quality water.

To date, there is no chloride standard for industrial uses of caprock water within the Malakole Aquifer System and the industrial water users don't have chloride limitations. The area underlain by the Malakole Aquifer System is largely developed for industrial uses, and most of the water uses in the vicinity of the H-Power facility are industrial for which brackish or salt water can be used.

A total quantity of 43.2 million gallons per day caprock water from the Malakole aquifer system has been allocated under various water use permits, including H-Power's existing permit. The total reported water use from the Malakole system was 17.3 mgd through October 2008, although we don't have pumpage data for all the active wells in this area.

Pumpage records and aquifer test data from the Malakole aquifer system show that this system can produce large quantities of water without causing much drawdown of the water table or interference with other area wells. Staff feels that water is available to supply H-Power's proposed increase in water use and that the requested increase will not interfere with other uses near the facility.
H-Power's reported water use (on a 12-month moving average basis) has been about 63% of its permitted quantity. Why request +1.08 mgd?

The amount of water requested by the applicant is based on the design requirements for the new boiler. The applicant's demand estimates include the portion of historically unused water under the current permit, plus the additional 1.08 mgd requested by this application.

The application included an assessment of five alternatives to the proposed use of brackish water, as required to complete the application. The quality of water from the caprock aquifer can be used to meet H-Power's needs without treatment or desalination.

Potable water is not needed and would not be a prudent option for the proposed use. Except for the option to switch to reclaimed water in the future, no other practical nonpotable sources are available.

We have learned since preparing this submittal, that the City is preparing a draft environmental impact statement for the proposed expansion. It will include an assessment of reclaimed water use alternatives, which lead to other permitting requirements, such as revision of the current underground injection control permit, administered by the Department of Health, to accommodate a treated wastewater effluent water source. For industrial cooling.

The City plans to switch to reclaimed water at some time in the future, after obtaining the necessary approvals and the required infrastructure has been constructed. In the interim, nonpotable caprock water is needed to continue operating the facility at its current capacity and for the expansion.

<<Refer to City's representation to explain details, if interested>>

We received no objections to the application during the public comment period, which ended on November 20, 2008.

Staff recommends that the Commission approve issuance of water use permit no. 863 to the applicant for reasonable and beneficial use of up to 3.34 million gallons per day of saltwater from the Malakole aquifer system area, subject to the standard permit conditions included in Attachment B of the submittal and three special conditions stated in the submittal.
Covanta Honolulu Resource Recovery Venture
APPLICATION FOR A WATER USE PERMIT
Facility Maintenance Wells 1 and 2 (Well Nos. 1806-09 and -10), TMK (1) 9-1-026:030
WUP No. 863, Modify Existing (Industrial) Use to 3.34 mgd
Malakole Ground Water Management Area, Oahu

APPLICANT:
Covanta Honolulu Resource Recovery Venture

LANDOWNER:
City & County of Honolulu
Department of Environmental Services

SUMMARY OF REQUEST:
The applicant is requesting to modify its existing water use permit to increase its use of brackish water to 3.34 million gallons per day (mgd) from two existing wells for industrial cooling at the H-POWER facility in Kapolei. The existing permit allows up to 2.26 MGD to be used for the same purpose. A third boiler is being added to increase the solid waste processing capacity from 610,000 tons per year to 910,000 tons/yr. This expansion will result in a need for an additional supply of 1.08 MGD of water for industrial cooling.

LOCATION MAP: See Exhibit 1

BACKGROUND:
On October 11, 1985, the Board of Land and Natural Resources (BLNR) approved the first water use permit for the facility (WUP No. 62). WUP No. 62 allowed up to 2.26 mgd of brackish water to be used at the facility as makeup water for the cooling towers. H-POWER’s application also states that the
well water is used for quenching fly ash and for washdown procedures at the facility. Two wells, Well Nos. 1806-09 and -10, were constructed in the Ewa caprock aquifer 1986 for the water supply. One well (Well No. 1806-09) serves as the principal source and the second well is maintained as a back-up source.

WUP No. 62 was approved by the BLNR under Chapter 177 HRS. In accordance with Chapter 177 HRS, WUP No. 62 was approved for a term of 20 years from the date of issuance, subject to review every 5 years. Thus, the expiration date of WUP No. 62 was October 20, 2005.

Chapter 177 HRS was repealed on July 1, 1989, and replaced by the State Water Code, Chapter 174C, HRS. Under Chapter 174C HRS, certified uses and permitted water uses approved by the BLNR are recognized by the Commission on Water Resource Management (Commission) as permanent water use permits. Any permit approved by the BLNR, therefore, would remain in effect until the Commission conducts a compliance review, as provided by §174C-56 HRS:

"At least once every twenty years, the commission shall conduct a comprehensive study of all permits issued under this chapter to determine whether the conditions on such permits are being complied with. The commission shall prepare a formal report to the legislature which shall be available to the public."

Mr. Glen Kashiwabara, of H-POWER, contacted the Commission's staff on October 20, 2002 to inquire about the process for renewing the permit. Staff advised Mr. Kashiwabara that a new water use permit application should be submitted for approval by the Commission. Staff also explained that, in accordance with the State Water Code, permits approved by the Commission are permanent and only subject to review. No application was filed at that time.

Subsequently, on January 27, 2005, Mr. Kashiwabara contacted staff again to inquire about the status of WUP No. 62. In a letter, dated January 31, 2005, Deputy Director Yvonne Izu responded that the Chapter 174C HRS provided that water use permits approved by the BLNR are recognized by the Commission as permanent. This letter also explained that the Commission was planning to conduct the required 20-year review of water use permits, as required by §174C-56 HRS, and that WUP No. 62 would remain active until the review was completed, unless a prior modification or revocation action was initiated by the Commission or the permittee.

On October 8, 2008, the Commission received a completed water use permit application from Covanta Honolulu Resource Recovery Venture (CHRRV) to modify H-POWER’s existing WUP No. 62. The application seeks to increase the permitted quantity of brackish (non-potable) water use at the H-POWER facility from 2.26 mgd up to 3.34 mgd. CHRRV has been retained by the City and County of Honolulu, Department of Environmental Services to expand the facility. AMEC Earth & Environmental, Inc. was retained to support the environmental permitting processes, including the modification of the existing water use permit. The expansion will add a third municipal solid waste combustor unit (called a refuse-derived fuel, or "RDF," combustor) at the plant.

Additional information regarding the source, use, and notifications is provided in Attachment A.
ANALYSIS/ISSUES:

Section 174C-49(a) of the State Water Code establishes seven 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

H-POWER currently uses two wells, both constructed in 1986, to supply water for industrial cooling (see Attachment A). The wells are located within the Malakole Aquifer System Area of the Ewa Caprock Aquifer Sector Area. Brackish water extracted from the caprock aquifer is used and, if approved by the Commission, will continue to be used principally as make-up water for the cooling tower. The two existing wells are capable of producing the requested quantity of water without modification.

The Commission has adopted a policy to manage the Ewa caprock aquifer to be a non-potable water resource. The Ewa Caprock Aquifer Sector Area is managed differently than other aquifer systems on Oahu. In lieu of an aggregate sustainable yield figure, water developed in irrigation wells are required to have chloride concentrations under 1,000 milligrams per liter (mg/l). This standard corresponds to the generally-accepted upper limit of irrigation-quality water. Minimum chloride standards are not established to ensure that the brackish portions of the aquifer, which provide irrigation-quality water, are not impacted by industrial wells. H-POWER's use is solely for an industrial purpose that can tolerate higher chloride concentrations.

In 1997, the Commission adopted the 1,000 mg/l chloride limit for irrigation wells. At that time, the Commission also directed staff to work with the industrial users in the Ewa Plain to propose a minimum chloride standard for industrial wells to ensure that mostly salt water or near salt water was being used for industrial purposes and would have little effect on the quality portions of the aquifer suitable for irrigation uses.

Staff sent a letter to Ewa caprock water users notifying them of the Commission's action, and requesting industrial users to propose a reasonable minimum chloride standard for industrial wells based on historical chloride data and actual need. In response, industrial users in the Malakole Aquifer System Area organized to form the Malakole Users' Group, comprised of six business entities located and conducting business within Campbell Industrial Park (AES Barbers Point, Inc.; Chevron Products Company; City and County of Honolulu, H-Power Plant/Honolulu Resource Recovery Venture; Grace Pacific Corporation; Hawaiian Electric Company, Inc.; and Kalaeloa Partners, L.P.).

The Malakole Users' Group provided historical chloride data for their wells, and expressed concern about the setting of individual minimum chloride standards because chloride levels could change over time due to hydrologic factors beyond their control. They proposed that they be exempt from individual well chloride limits and instead all be subject to a 1,000 mg/l minimum chloride level, which would not satisfy the Commission's intent and purpose for the minimum standard. Staff met with representatives of the users' group and sent a letter
informing their designated representative that staff was still reviewing the situation and considering the information that was provided by the group. To date there is still no industrial chloride standard within the Malakole Aquifer System. Unlike irrigation, industrial users in the Malakole System Area really don’t have chloride limitations. In the event chloride concentrations in the industrial area become an issue, staff will resume discussions of setting a chlorides standard.

Staff established a monitoring network of Ewa caprock wells and collected quarterly water level and chloride data from 1994 to 2001. The network initially included some Malakole area wells (i.e., Chevron and Hawaii Raceway Park), but those wells were later dropped and more focus placed on irrigation wells in the Kapolei and Puuloa Aquifer System Areas as a consequence of development pressures at the eastern end of the Ewa Plain. Presently, staff is not aware of any well interference or concerns about chloride concentrations in ground water from the Malakole Aquifer System Area.

In establishing a sustainable capacity for irrigation wells, the Commission found the following:

1. The Ewa caprock aquifer is a thin basal aquifer vulnerable to salinity intrusion (most salinity profiles indicate sharp salinity changes). Therefore, the quantity of developable water supply depends entirely on well location.

2. Because the caprock aquifer lens is thin, salinity intrusion is a significant limitation, particularly for wells in the makai portion of the aquifer. If ground water withdrawal from the aquifer occurs primarily in mauka areas, the developable supply may be greater.

3. The aquifer's main source of recharge is ground water inflow (leakage) from the basalt aquifer at the inland margin of the interbedded coralline rock formations that comprise the Ewa caprock aquifer system. The amount of leakage cannot easily be quantified and is, in part, dependent upon the water levels in the basal aquifer.

4. Sustainable yield is a theoretical number that assumes optimal well placement in an aquifer. The spatial distribution of chloride in the caprock aquifer, however, doesn't fit the notion of managing ground water allocations and withdrawals on the basis of a single sustainable yield number.

5. The magnitude of tidal influences are equal to or greater than pumping influences and thus makes water level monitoring as a means for estimating sustainable yield and regulating water use extremely difficult.

6. The caprock aquifer is para-basal inland, which means that the bottom of the aquifer is truncated by the low-permeability clay layer that underlies the upper limestone aquifer.
8. The hydrology of the Ewa caprock aquifer is sufficiently unique to warrant consideration of alternative regulatory considerations. This is particularly appropriate given the change in irrigation returns and availability of reclaimed water to supplement the naturally-occurring recharge.

The Commission directed that a minimum chloride standard be established for industrial use wells to ensure that water withdrawals will not adversely impact irrigation wells operating within the Ewa caprock aquifer. Exhibit 2 lists the existing caprock wells within the Malakole Aquifer System Area and includes information the use or status of each well. Exhibit 3 shows the wells that are within a 1-mile radius of the H-POWER wells. There are no irrigation wells within 1 mile of H-POWER’s wells or within the Malakole Aquifer System Area.

In addition to H-POWER’s two wells, used solely for industrial cooling water supply, the wells owned and operated by Tesoro, Kalaeloa, AES Hawaii, Inc., Hawaiian Electric Company, and Chevron are used for industrial or fire protection purposes or are maintained as back-up industrial wells (see Exhibit 2). Chloride data from these wells range from 1,250 mg/l (Kalaeloa, Well No. 1805-04) up to 20,500 mg/l (AES Hawaii, Well No. 1806-11). The remaining wells in the area are either permanently sealed, unused, or maintained as observation or monitoring wells for environmental and/or remediation projects.

Exhibit 4 shows the active water use permits for the Malakole Aquifer System Area, and includes the average pumpage reported to the Commission (a 12-month moving average, or “12-MAV”). The pumpage reported for the H-POWER facility for the past 4 years is included as Exhibit 5. H-POWER’s water use reporting records show that its actual use from October 2007 through October 2008 was approximately 63 percent of the quantity permitted by WUP No. 62. Usage in 2005 and 2006 was slightly less (see Exhibit 5).

A review of AES Hawaii’s reported water use (through December 2007) shows the 12-MAV to be 11.309 mgd pumped from wells located approximately 500 feet south of the H-POWER wells. This is an order of magnitude higher that pumpage reported by H-POWER (1.428 mgd), Kalaeloa (1.342 mgd), and Chevron (2.192 mgd at the acid plant and 0.977 mgd at the liquefied petroleum gas storage facility).

Pump test data show that the caprock aquifer is capable of producing large quantities of brackish water without causing much drawdown of the water table. Based on this information and usage records, it is unlikely therefore that increasing the quantity of water pumped at the H-POWER facility will interfere with other industrial uses in the area.

Staff finds water is available to meet the proposed use for the following reasons:

- H-POWER’s water use does not rely on a certain chloride quality of the well water.
Staff Submittal

• The aquifer is a thin basal aquifer, and the salinity impacts of withdrawals at an individual well site will likely be confined to the immediate vicinity of the pumping well.

• There are no irrigation wells in the area.

• Based on the hydraulic properties of the caprock aquifer and an assessment of other industrial uses in the vicinity of the H-POWER facility, it is unlikely that the proposed withdrawal of up to 3.34 mgd will interfere with other industrial users in the area.

• No minimum chloride limit has been established for industrial wells.

(2) Reasonable-beneficial

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

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

I. Purpose of Use

The applicant is requesting approval to increase its permitted quantity of water use from 2.26 mgd up to 3.34 mgd, to accommodate an increased need for industrial cooling water. The applicant states that the non-potable water is also used for quenching ash or for washdown procedures at the facility. The source of water is non-potable, brackish ground water drawn from the Ewa caprock aquifer.

A third boiler is being added to increase the solid waste processing capacity from 610,000 tons per year to 910,000 tons/yr. This expansion will result in a need for an additional supply of 1.08 MGD of water for industrial cooling. The Declaration of Policy section, §174C-2(c) HRS, states that the Water Code shall be liberally interpreted to obtain maximum beneficial use of the waters of the State for various purposes including industrial uses.

II. Quantity Justification

The applicant is requesting a total of 3.34 mgd to provide a supply of make-up water for the cooling towers at the H-POWER facility, after the facility expansion has been completed. The facility currently holds an active water use permit that allows use of up to 2.26 mgd of non-potable brackish water for this purpose.

The H-POWER facility has operated for 18 years, using a refuse-derived fuel technology to produce energy from municipal solid waste. It currently operates with two boilers. The H-
POWER expansion project consists of adding a third municipal solid waste combustor unit to the existing two refuse-derived fuel combustors. This expansion will require an increase in flow volume from the two existing wells. No new wells will be constructed.

The quantity of water requested is based on an engineering analysis and design requirements for the new boiler and an assessment of past water use. The requested quantity takes into account the amount of water that CHRRV estimates is available in the existing water use allocation that can be used to supply the need for the new boiler, in addition to the additional 1.08 mgd requested to modify the existing permit.

III. Efficiency of Use

The applicant re-injects water that has been used in the cooling towers. The towers are designed and manufactured to prevent wasting water during operation.

IV. Analysis of Practical Alternatives

The applicant has provided an assessment of five alternatives to the proposed use of brackish water for its cooling water needs. Non-potable water is currently used and will continue to be used, if approved by the Commission, solely as make-up water for the cooling tower. Brackish water from the Ewa caprock aquifer is the current source of cooling water used at the site, supplied by the two existing wells, under an existing water use permit. These wells have been in service for over 15 years and are capable of producing the increased volume of water the applicant is requesting without modification.

Potable water is not required for the industrial processes at the H-POWER facility, and therefore not evaluated further with respect to the subject application. The applicant's analysis of alternative non-potable sources follows.

1. Municipal Sources
   No municipal sources of non-potable water are available to meet the volume demand at the H-POWER facility. The only municipal source of water currently available to the facility is potable water, which is not required for the intended use.

2. Wastewater Reuse (Reclaimed Water) *
   Reclaimed wastewater would not provide the volume of water required for the H-POWER plant operation. Additionally, the infrastructure needed to deliver reclaimed water to the facility is not currently in place, making this alternative impractical.

3. Ditch System
   Water from a ditch system is not a feasible alternative to provide non-potable water to the Campbell Industrial Park, where the H-POWER facility is located. The infrastructure needed to deliver ditch water to the facility is not currently in place, making this alternative impractical.
4. *Desalinization*

Desalinized water is not required for H-POWER's water uses. Water from the caprock aquifer, which at the H-POWER facility has chloride concentrations in the range of 18,000 mg/l, is suitable for use as make-up water for the cooling towers. (Water with chloride concentrations above 17,000 mg/l is considered to be salt water.)

5. *Surface Water*

There are no surface water basins or sources available in or near the Campbell Industrial Park. If surface water were available, the water would be of better quality than what is required for industrial cooling water at the H-POWER facility.

The 2000 Legislature amended the Water Code to include a new section, §174C-51.5, HRS that provides the Commission with the authority to require dual line (potable and non-potable) water supply systems in new industrial and commercial developments located in designated water management areas. In this case, the application is to modify an existing water user permit to increase the quantity of non-potable water use at the facility; it is not a new development project. Therefore, this provision does not apply to this facility.

The consistency of this application with other beneficial-reasonable use criteria will be discussed in the following sections.

(3) **Interference with other existing legal uses**

None. A discussion of other ground water users in the vicinity of the H-POWER facility and within the Malakole Aquifer System Area is provided above in Section 1, Water Availability.

(4) **Public interest**

In its application, CHHRV asserts that its current and expanded use of brackish water for industrial cooling is in the public interest for several reasons, all centered on the nature of the facility's operations, and how the facility benefits the local community and the state of Hawaii. CHHRV explains that the expansion project will: (1) increase the energy generated from the H-POWER facility's waste disposal operations; (2) increase the energy and recyclable metals recovered annually; and (3) further reduce the need for landfilling of municipal solid waste on Oahu. The applicant asserts that these factors are all in the best interests of the public.

Additionally, the applicant has explained that the environmental characteristics of the expansion project will comply with federal, state, and local permits and programs designed for the protection and stewardship of environmental resources. The City and County of Honolulu is requiring a full assessment of potential environmental consequences of facility expansion be prepared for community review and comment. This is to include assessment of the existing natural and human environment, including potential impacts and mitigation measures, as well as an assessment of how the project conforms to federal, state, and local planning policies, and a sustainability analysis.
Other aspects of the facility expansion raised by the applicant are as follows:

- H-POWER currently employs 145 island residents, with a $10 million annual payroll. The expansion project is expected to result in 300 construction jobs and several additional operational positions.

- Each year H-POWER spends more than $8.5 million locally on equipment and services from Hawaii vendors. The expansion project is expected to result in significant local spending during the construction period.

- The existing H-POWER facility has been shown to be a cost-effective and practical solution for municipal solid waste management on Oahu. The expansion will provide capacity for handling a growing demand for waste management services.

- H-POWER has been producing energy from solid waste combustion since it started operation in 1990. It produces 5 percent of the power used on the island of Oahu, which otherwise would have been produced from combustion of petroleum-based fuels.

No public comments or objections were received on this application during the comment period.

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

The facility is located within the State Land Use Urban District. Activities or uses with the Urban District are under the jurisdiction of the City and County of Honolulu, Department of Planning and Permitting. The current zoning for the parcel is I-2 Intensive Industrial District and the use is permitted as a public use. Further, the City and County of Honolulu, Department of Planning and Permitting confirmed during its review of the subject application that the public use of the H-POWER site is consistent with the Ewa Development Plan and the Public Review Draft of the Ewa Development Plan.

(6) County land use plans and policies

This industrial use is consistent with County land use plans and policies. (See discussion under Section 5, above).

(7) Interference with Hawaiian home lands rights

The applicant asserts that the proposed increased use of water will not interfere with Section 221 of the Hawaiian Homes Commission Act. The water is currently being used for industrial purposes, and is not suitable for domestic, agriculture or livestock uses because of the high chloride concentrations.

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) were provided a
copy of this application for review. No comments or objections were received from DHHL or OHA regarding this application.

Further, standard conditions 3.g., 6., and 9.f. of all water use permits notify permittees that the Commission’s approval of their permits is subject to the requirements of the Hawaiian Homes Commission Act, as amended, and cannot interfere with Hawaiian home land rights, in accordance with §174C-101(a) HRS.

With these provisions and the location and nature of operations at the H-POWER facility, the proposed increased water use is not expected to interfere with Hawaiian home land rights.

OTHER

In addition to requiring applicants to respond to the seven criteria required by statute, as discussed in the preceding section, the ground water use permit application was recently updated to require applicants to explain how the proposed new use(s) of water will not interfere with any other legal use(s) of water.

CHRRV’s application states that the proposed increase of use will not interfere with any existing legal uses. This statement is based on the fact that the Commission has already approved use of up to 2.26 mgd of water from two existing wells within the Malakole Aquifer System Area, the aquifer is used for other industrial purposes including injection of effluents for disposal, and there are no individual household uses in the area. Finally, as noted in staff’s assessment of water availability, no irrigation wells would be affected and it is unlikely that other industrial users in the area will be affected.

RECOMMENDATION:

Staff recommends that the Commission approve issuance of water use permit no. 863 to Covanta Honolulu Resource Recovery Venture for the reasonable and beneficial use of 3.34 million gallons per day of brackish water from the Facility Maintenance Wells 1 and 2 (Well Nos. 1806-09 and -10) for industrial use at the H-POWER facility. Approval should be subject to the standard water use permit conditions listed in Attachment B and the following special conditions.

1. Should an alternate permanent source of water be found for this use, then the Commission reserves the right to revoke this permit, after a hearing.

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

December 17, 2008

3. Standard Condition 16 is waived for salt water wells. <water shortage plan>

Respectfully submitted,

KEN C. KAWAHARA, P.E.
Deputy Director

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

Exhibit(s):
1 (Location Map)
2 (Nearby Wells and Water Uses)
3 (Map of wells near H-POWER facility)
4 (Active Water Use Permits in the Malakole Aquifer System Area)
5 (12-MAV for H-POWER, 1/1/2004-9/30/2008)

APPROVED FOR SUBMITTAL:

LAURA H. THIELEN
Chairperson

Who will press for timeline to switch to recycled water? No water available, doesn’t know if RL water is -

Approved.
WATER USE PERMIT DETAILED INFORMATION

Source Information

AQUIFER
Sustainable Yield: Malakole System, Ewa Caprock Sector, Oahu
Existing Water Use Permits: N/A
Available Allocation: 43.211 mgd
Total other pending applications: N/A
This application: 0 mgd
3.34 mgd

WELL DATA
Location: Facility Maintenance Wells 1 and 2 (Well Nos. 1806-09 and -10)
Year Drilled: 900 ft west of Hanua Street, Oahu, TMK: (1) 9-1-026:030
Casing Diameter: 1986
18 in.

Elevations (datum = mean seal level elevation, 0.0 ft)
Water Level: 1806-09, 0.3 ft // 1806-10, 0.2 ft
Ground (same in both wells): 12 ft
Bottom of Solid Casing (same in both wells) -38 ft
Bottom of Perforated (same in both wells): -88 ft
Bottom of Open Hole: 1806-09, -91 ft // 1806-10, -93 ft
Total Depth: 1806-09, 103 ft // 1806-10, 105 ft
Grouted Annulus Depth (same in both wells): 47 ft
Pump Capacity (same in both wells): 1,450 gpm

ATTACHMENT A
Staff Submittal

Use Information

Quantity Requested: 3.34 mgd
Existing Type of Water Use: Industrial
Place of Water Use: TMK: (1) 9-1-026:030

Reported Industrial Water Usage (12-MAV)

<table>
<thead>
<tr>
<th>Company</th>
<th>Usage (mgd)</th>
</tr>
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<tbody>
<tr>
<td>H-POWER (through 10/31/2008)</td>
<td>1.428</td>
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<td>Chevron, Boiler Plant (2007)</td>
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</table>

Malakole Aquifer System
Current 12-MAV Withdrawal (See Exhibit 4): 17.25 mgd

Nearby Surrounding Wells and Other Registered Ground Water Use

There are 21 other industrial or backup wells within 1 mile of H-POWER’s wells (see Exhibits 2 and 3). The total permitted quantity of water from the Malakole Aquifer System Area is 43.211 mgd (see Exhibit 4). The reported water use from wells within the Malakole Aquifer System is 17.25 mgd (Exhibit 4).

The water use permit for Grace Pacific was approved for 2 mgd and is included in the list of water use permits issued for the Malakole Aquifer System Area; however, these wells were abandoned in 2005.

Other active water use permits in the management area have been issued to Tesoro Hawaii Corp., VIP Sanitation, Hawaiian Electric Company (HECO), and the State DLNR, and to Chevron for fire protection. Water usage data are not available for these wells at this time. The only significant use approved among these permit holders is 14.4 mgd for HECO, which is on the parcel adjacent to the H-POWER facility.

It is not expected that the proposed increase in water withdrawals from the H-POWER wells will impact any of these users.

Public Notice

In accordance with §13-171-17, HAR, a public notice was published in the Honolulu Star Bulletin on October 29, 2008 and November 5, 2008, and a copy of the notice was sent to Mayor Hannemann’s office. Copies of the completed application were sent to the Honolulu Board of Water Supply, the City and County of Honolulu Department of Planning and

ATTACHMENT A
Permitting, the state Departments of Health and Department of Hawaiian Home Lands, various divisions of the Department of Land and Natural Resources, the Land Use Commission, and the Office of Hawaiian Affairs. Comments and objections to the proposed permit were to be filed with the Commission by November 20, 2008. Comments were received from some of the review agencies and are addressed in the analysis of the application. No comments were received from the general public or special interest groups.

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 November 20, 2008.

No objections were filed.
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 December 17, 2008 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.

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

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

12. A permit may be transferred, in whole or in part, from the permittee to another, if:
   a. The conditions of use of the permit, including, but not limited to, place, quantity, and purpose of the use, remain the same; and
   b. The Commission is informed of the transfer within ninety days.

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

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

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

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

16. The permittee shall prepare and submit a water shortage plan within 30 days of the issuance of this permit as required by HAR § 13-171-42(c). The permittee's water shortage plan shall identify what the permittee is willing to do should the Commission declare a water shortage in the Malakole Ground Water Management Area.

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

18. The permittee understands that any willful violation of any of the above conditions or any provisions of HRS § 174C or HAR § 13-171 may result in the suspension or revocation of this permit.

19. Special conditions in the attached cover transmittal letter are incorporated herein by reference.
### H-POWER WUPA No. 863

**Malakole Aquifer System / Ewa Caprock Aquifer**  
**Wells, Well Status, and Water Uses**

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**EXHIBIT 2**
Aquifer System Area Water Use Permit Index (total)

ISLAND OF OAHU

Aquifer System Ground Water Management Area: MALAKOELE

Sustainable Yield =

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- **Active**
Denise,

Sorry, I didn't update you on the 're-do' or 'not re-do' submittal. Ken called and he said it can be brought up for discussion like you suggested.

Kathleen

Denise E Mills/DLNRI/StateHiUS

Roy,

Ken signed the submittal on Friday, but had a question about use of reclaimed water at the facility. He recalls that the City Council was moving toward using reclaimed water at the H-POWER facility.

Roy and Ken,

I called Steve Langham at the C&C, Dept of Environmental Services and he explained that they are planning to shift entirely to RO or R-1 water at the facility, but the water is not available to this property yet. There is an R-1 line in the vicinity of the property. Here's what Steve told me:

Before the City can switch to RO or R-1 water, it needs to obtain approval from DOH to modify the current UIC permit. The switch also requires re-engineering of the cooling tower (scrubbers?) to accommodate a treated effluent water supply. With salt water, the salinity increases when water is run through the towers; there will be other residuals besides salt accumulations when reclaimed water is used.

The City is moving forward with its expansion plan, and needs the additional requested saltwater supply as a cooling water source until it has received all required permit approvals. The City is in the process of completing an EIS that considers alternatives for reclaimed water use. The EIS is expected to be released Dec 26. If there are no objections, the City is aiming to be prepared for the switch to RO or R-1 water in 10-12 months. They are also anticipating making a new application to CWRM for modification of the WUP, if ground water is still needed to supply some of the cooling water.

Can this be explained at the Commission meeting without modifying the submittal? Or do you want me to add a paragraph explaining this to the submittal and have Susan H prepare a fresh copy for Ken's signature?

--Denise
Mahalo Nui Loa,

-----Original Message-----
From: Langham, Stephen F
Sent: Thursday, November 13, 2008 6:54 AM
To: Doyle, Frank
Subject: RE: Ahupuaa Updates

Huh? How do you propose handling it? My thought was to raise the issue in the DEIS and then attempt to modify the Water Use and UIC permits. Currently we have submitted Permit Modification applications (October 7), solely to increase the flow from the third boiler addition (1.2 to 1.82 mgd) requiring re injection.

In the water use permit application, we stated we would use cap rock water and further stated there was no available source of re used potable water.

If we decide to use R1 or RO then I believe we have to submit yet another to change the Characteristics in the UIC permit and perhaps modify the Water Use permit application to state re used potable water source is available.

Relative to the APC and after further thought I don't see much advantage to sticking w/ same vendor:

1. different flue gas composition and flow, therefore different size unit
2. probably different components any way as SPE is basically a designer and they sub out fab and bid out parts and pieces;
3. total APC system including scrubber

Bigger issue relates to VLN. With VLN back end is undersized due to recirculation of flue gas. HDR's over bearing concern is if VLN does not work, and back end is under sized, what do we do?. Safest bet is to select a unit/system with margin.

Greg is traveling, will address with him next week.

How about pre meeting before Eric's Monday meeting?

Mahalo Nui Loa,

Stephen Langham, PE
Energy Recovery Administrator
H-POWER
-----Original Message-----
From: Doyle, Frank
Sent: Wednesday, November 12, 2008 4:36 PM
To: Langham, Stephen F
Subject: RE: Ahupuaa Updates

It goes in the EIS if Covanta agrees to use it and the cost are not significantly prohibitive. I do not think it is a water quality issue as the recharging of the aquifier was approved in the past.

-----Original Message-----
From: Langham, Stephen F
Sent: Wednesday, November 12, 2008 3:11 PM
To: Doyle, Frank
Subject: RE: Ahupuaa Updates

I do not think it is a cost issue, I think it is a ground water quality issue, can we inject reclaimed water? That is why I suggested addressing it in the EIS.

Mahalo Nui Loa,

Stephen Langham, PE
Energy Recovery Administrator
H-POWER

-----Original Message-----
From: Doyle, Frank
Sent: Wednesday, November 12, 2008 12:46 PM
To: Langham, Stephen F
Subject: RE: Ahupuaa Updates

Steve, when will we have Covanta's reply. This may go beyond just cost. We have agreements with EPA that may have to be satisfied. Frank

-----Original Message-----
From: Langham, Stephen F
Sent: Tuesday, November 11, 2008 6:10 AM
To: Takamura, Eric; Nagamine, David; Okabe, Martin P
Cc: Houghton, Tim; Kiyono, Helene; Doyle, Frank
Subject: RE: Ahupuaa Updates

I have forwarded subject letter to Covanta and their consultant AMEC, requesting we deal with the use of Reclaimed water in the DEIS.

I posted both the letter and my request on docushare under permits, water.

The Water Use permit has already been submitted as has been the UIC permit.

The UIC may be the limiting factor as we will need to inject reclaimed water. I believe the prudent course is to go forward as planned, using
Dave: Can you address the first item.

Steve/(Martin) Can you address the second item.

Eric

Eric,

BWS was asking about 2 items with ENV.

The first is they are still waiting on the return of a MOA to be signed by you on the low-flow toilet rebates for this fiscal year.

Secondly, they sent a letter dated Oct. 28 regarding using recycled water in the plan, design and expansion of HPOWER.

Markus
Denise;

Can you kindly assist. As stated, we intend to address in the DEIS, scheduled for submittal 26 DEC.

Mahalo Nui Loa,

Stephen Langham, PE
Energy Recovery Administrator
H-POWER

-----Original Message-----
From: Druckman, Herb
Sent: Monday, November 24, 2008 3:43 AM
To: Langham, Stephen F
Subject: FW: Recycled water Quality Parameters

Have we ever gotten any answers on this question?

-----Original Message-----
From: Langham, Stephen F [mailto:slangham@honolulu.gov]
Sent: Thursday, October 23, 2008 12:40 PM
To: Druckman, Herb
Cc: Doyle, Frank
Subject: RE: Recycled Water Quality Parameters

Herb;

The analysis in the e-mail attachment, isn't it.

I'll pass on your other questions.

Mahalo Nui Loa,

Stephen Langham, PE
Energy Recovery Administrator
H-POWER

-----Original Message-----
From: Druckman, Herb
Sent: Tuesday, October 21, 2008 11:54 PM
To: Langham, Stephen F
Cc: Diffenderfer, Thomas; Terramoccia, Robert; Smith, Rodney; Webster, Robert; Swanson, Steven
Subject: Re: Recycled Water Quality Parameters

I am sure that this has been discussed before but not in detail. Do we have a current delivered water analysis and current costs for each? Do we know specifically where the water is delivered to at the present time?

How dependent will we be on other users if it passes thru easements or others systems? (Like AES or Reit Management?)

If I understand correctly you want this to be addressed for the present Operation and the new Unit.

Herb

-----Original Message-----
From: steve <2008>
Subject: Fw: Recycled Water Quality Parameters
Sent from my BlackBerry(r) smartphone with SprintSpeed

From: "Doyle, Frank" <fdoyle@honolulu.gov>
Date: Tue, 21 Oct 2008 10:32:06 -1000
To: Langham, Stephen F<slangham@honolulu.gov>
CC: Serikaku, Steven<sserikaku@honolulu.gov>
Subject: FW: Recycled Water Quality Parameters

Steven, please have Covanta incorporate the use of RO and RI water in the design of the third boiler and if applicable to use in the existing H-Power facility. the following are some questions and water quality data to be included in the design and in the EIS. Call me to discuss.

Barry - several questions to help us further evaluate the R0/R1 alternative:

Can you send me information on the Water System Facilities Charge (per 1000 gallons) for the R1 and RO water and how it would compare to the potable water.

As an alternative to having on-site storage (in case of a R0 or R1 mainbreak), could we interconnect the potable and R0 and/or R1 water systems for backup purposes - with the appropriate backflow devices.

Regarding the R0 and R1 water quality reports, is that at the spigot or at the R0 plant? Does the R0 water pickup any minerals from the pipeline? Is there any guarantee for the quality of the R0 and R1 water.

Can you provide us with the hours of pressurized service for the R1 and RO lines - as you mentioned these were both pump pressurized systems (no reservoir).

Thanks
-----Original Message-----
From: BARRY USAGAWA
Sent: Monday, October 20, 2008 4:32 PM
To: Doyle, Frank; Serikaku, Steven
Cc: MICHAEL MATSUO
Subject: Recycled Water Quality Parameters
Frank and Steve,

Here are the RO and R1 water quality parameters that Veolia Water must contractually adhere to. If you need additional information, please let me know.

Thanks for agreeing to consider recycled water for the H-Power expansion.

Thanks,

Barry
Roy,

Ken signed the submittal on Friday, but had a question about use of reclaimed water at the facility. He recalls that the City Council was moving toward using reclaimed water at the H-POWER facility.

Roy and Ken,

I called Steve Langham at the C&C, Dept of Environmental Services and he explained that they are planning to shift entirely to RO or R-1 water at the facility, but the water is not available to this property yet. There is an R-1 line in the vicinity of the property. Here's what Steve told me:

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Can this be explained at the Commission meeting without modifying the submittal? Or do you want me to add a paragraph explaining this to the submittal and have Susan H prepare a fresh copy for Ken's signature?

--Denise
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FIGURE 2

TMK Map

H-POWER Application for Ground Water Use Permit Modification.
Site Photographs of the Sources and Locations of Proposed End Uses
H-POWER Application for Ground Water Use Permit Modification.
### CWRM Water Use Permit

#### Reviewer Comments / Routing

<table>
<thead>
<tr>
<th>Reviewer</th>
<th>Comments Received</th>
<th>Date</th>
<th>Comments</th>
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<td>DLNR Divisions</td>
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<tr>
<td>Aquatic Resources</td>
<td>✓</td>
<td>11/19/08</td>
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<td>Forestry and Wildlife/NARS</td>
<td>✓</td>
<td>11/18/08</td>
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<td>Historic Preservation</td>
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<td>11/24/08</td>
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<td>Land Division, Atta</td>
<td>✓</td>
<td>11/18/08</td>
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<td>State Parks</td>
<td>✓</td>
<td>11/10/08</td>
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<td>LUC (Dave Davidson)</td>
<td>✓</td>
<td>11/21/08</td>
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<td>DHHL (Hon. Micah Kane)</td>
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<td>DOH (Hon. C.L. Fukino)</td>
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<td>WW Branch (T. See)</td>
<td>✓</td>
<td>11/5/08</td>
<td>Sumps tanks nearby.</td>
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<td>SDW Branch (S. Yamada)</td>
<td>✓</td>
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<td>Office of Hawaiian Affairs</td>
<td>✓</td>
<td>12/10/08</td>
<td>Sacks assurance that will not adversely affect Native Hawaiian needs in area.</td>
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<td>Honolulu BWS (Clifford Lum)</td>
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<td>Chester Lao</td>
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<td>Barry Usegawa</td>
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<td>C&amp;C of Honolulu</td>
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<td>Dept of Planning &amp; Permitting</td>
<td>✓</td>
<td>11/21/08</td>
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</table>

#### Other interested parties

| Other interested parties | | 1 | 2 | 3 | 4 | 5 |

#### Payment received for public notice?

When: 12/1/08
COMMISSION ON WATER RESOURCE MANAGEMENT

FROM: ROY
DATE: DEC 10 2008
SUSPENSE DATE: 

TO: CHENG, C.
INIT: TO: KUNIMURA, I.
INIT: FOR: Approval
FOR: Signature
FOR: Information

TO: CHING, F.
INIT: TO: MILLS, D.
INIT: FOR: Approval
FOR: Signature
FOR: Information

TO: CHONG, R.
INIT: TO: OHYE, L.
INIT: FOR: Approval
FOR: Signature
FOR: Information

TO: DANBARA, S.
INIT: TO: OHYE, M.
INIT: FOR: Approval
FOR: Signature
FOR: Information

TO: ENGLAND, D.
INIT: TO: OSHIRO, K.
INIT: FOR: Approval
FOR: Signature
FOR: Information

TO: FUJII, N.
INIT: TO: SAKODA, E.
INIT: FOR: Approval
FOR: Signature
FOR: Information

TO: HARDY, R.
INIT: TO: SWANSON, S.
INIT: FOR: Approval
FOR: Signature
FOR: Information

TO: HOAGBIN, S.
INIT: TO: TORRES, R.
INIT: FOR: Approval
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FOR: Information

TO: ICE, C.
INIT: TO: UYENO, D.
INIT: FOR: Approval
FOR: Signature
FOR: Information

TO: IMATA, R.
INIT: TO: YODA, K.
INIT: FOR: Approval
FOR: Signature
FOR: Information

TO: KAWAHARA, K.
INIT: TO: YOSHINAGA, M.
INIT: FOR: Approval
FOR: Signature
FOR: Information

TO: KIMURA, J.
INIT: TO: 
INIT: FOR: Approval
FOR: Signature
FOR: Information

PLEASE:

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

2.26
+ 1.08 (additional)
3.34

✓
November 20, 2008

Denise Mills  
Commission on Water Resource Management

RE: Request for comments on the proposed Water Use Permit Application (WUPA), Malakole Ground Water Management Area, O‘ahu, TMK: 9-1-26: 30.

Aloha e Denise Mills,

The Office of Hawaiian Affairs (OHA) is in receipt of the above-mentioned letter dated October 28, 2008. OHA has reviewed the project and offers the following comments.

OHA seeks assurances that uses from this source will not adversely affect constitutionally protected Native Hawaiian uses in the area and as protected in the state water code. Further, we note that the applicant is adding a third boiler to increase municipal solid waste processing and, therefore, they seek to modify an existing water use permit. OHA points out that the application twice states that the new boiler will require 1.08 MGD additional water. However, the applicant seeks 3.34 MGD in this application. This discrepancy should be clarified to justify this request and meet the reasonable/beneficial burden that water permits require.

Thank you for the opportunity to comment. If you have further questions, please contact Grant Arnold by phone at (123) 456-7890.

‘O wau iho nō me ka ‘oia‘i‘o,

Clyde W. Nāmu‘o  
Administrator
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<tr>
<th>F YR</th>
<th>APP D</th>
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<td>TOTAL $423.74</td>
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REMARKS:

LINE (1) Reimbursement for Public Hearing Notice cost for WUP No. 825
LINE (2) Reimbursement for Public Hearing Notice cost for WUP No. 853
LINE (3) Reimbursement for Public Notice cost for WUP No. 863
LINE (4)  
LINE (5)  
LINE (6)  
LINE (7)  
LINE (8)  
LINE (9)  
LINE (10)  

Mr. S. Samuel Joshi, PE, QEP
Covanta Honolulu Resource Recovery Venture
c/o Covanta Energy Corporation

Dear Mr. Joshi:

Invoice for Public Notice
Water Use Permit Application
WUPA No. 863 (Well Nos. 1806-09 and -10)

We are attaching a copy of the Affidavit of Publication and the Invoice/Receipt for the subject notice. Please submit a check payable to the Department of Land and Natural Resources at the address shown above for the amount due by the date specified below.

Amount Due: $336.24
Due Date: December 1, 2008

All water use permit applicants are required to pay the cost to publish the public notice(s) of their application(s). Payment is required to complete your application. Failure to submit the full amount due by December 1, 2008 will result in a rejection of your application. If you decide to proceed with this project in the future, a new water use permit application must be made, and you will be required to pay for the costs of both this public notice and the new public notice.

If you have any questions, please contact Denise Mills at (DEM:ss)

Sincerely,

KEN C. KAWAHARA, P.E.
Deputy Director

DEM:ss
Enclosure

c: Glenn Kashiwabara, COVANTA Honolulu Resource Recovery Venture
Stephen Langham, City and County of Honolulu
November 20, 2008

Ken C. Kawahara, P.E., Deputy Director
Commission on Water Resource Management
Department of Land and Natural Resources

Dear Mr. Kawahara:

SUBJECT: Chapter 6E-42 Historic Preservation Review – Water Use Permit Application, WUPA NO. 863, Malakole Ground Water Management Area
Honouliuli Ahupua'a, 'Ewa District, Island of O'ahu
TMK: (1) 9-1-026:030

Thank you for the opportunity to comment on the aforementioned project. We received the submittal on October 30, 2008. The proposed undertaking involves using water from two existing wells (Well No. 1806-09 and -10) located the subject parcel.

We determine that no historic properties will be affected by this undertaking because:

- Intensive cultivation has altered the land
- Residential development/urbanization has altered the land
- Previous grubbing/grading has altered the land
- An accepted archaeological inventory survey (AIS) found no historic properties
- SHPD previously reviewed this project and mitigation has been completed
- Other: Water will be used from existing wells and no ground disturbing activities are proposed

However, in the event that historic resources, including human skeletal remains, are identified during the construction activities, all work needs to cease in the immediate vicinity of the find, the find needs to be protected from additional disturbance, and the State Historic Preservation Division, O'ahu Section, needs to be contacted immediately at [phone number] if you have any questions or concerns regarding this letter.

Aloha,

Nancy McMahon, Archaeology and Historic Preservation Manager
State Historic Preservation Division

[Signature]
Ms. Laura H. Thielen, Chairperson
Commission on Water Resource Management
Department of Land and Natural Resources
State of Hawaii

Dear Ms. Thielen:

Subject: Water Use Permit Application, WUPA No. 863
Malakole Ground Water Management Area, Oahu

We have reviewed the subject application and provide the following comments:

1. The current zoning for TMK: 9-1-026: 030 is I-2 Intensive Industrial District and the use is permitted as a public use.

2. We understand that the application is to modify an existing water use permit with an increase of approximately 1.08 million gallons per day of caprock water from two (2) currently permitted and existing caprock supply wells. This additional brackish/saline water would be used for a third boiler to support the H-POWER expansion project, which will increase municipal solid waste processing from 610,000 tons/year to 910,000 tons/year. The Department of Planning and Permitting also confirms that the public use on the existing H-POWER site is consistent with the existing Ewa Development Plan and the Public Review Draft of the Ewa Development Plan.

3. The above-referenced Tax Map Key is not located within the Special Management Area (SMA) and is not subject to the SMA requirements of Chapter 25, Revised Ordinances of Honolulu.

If you have any questions, please call Matt Higashida at [REDACTED]

Very truly yours,

[Signature]
Henry Eng, FAICP, Director
Department of Planning and Permitting
November 19, 2008

TO: Laura H. Thielen, Chairperson
Commission on Water Resource Management
Department of Land and Natural Resources

FROM: Orlando Davidson, Executive Officer

SUBJECT: Water Use Permit Application
Malakole Groundwater Management Area, Oahu

We have reviewed the subject application forwarded by your transmittal dated October 28, 2008. Based on the representation of Well Nos. 1806-09 and 1806-10 on the site map, we find that they are located within the State Land Use Urban District.

With respect to your request as to whether the current designation is appropriate for the proposed project, please be advised that pursuant to section 205-2(b), Hawaii Revised Statutes, activities or uses within the Urban District are the jurisdiction of the respective counties as provided by their ordinances or regulations. As such, we suggest that you contact the City and County of Honolulu Department of Planning and Permitting directly for their comments on this matter.

Thank you for the opportunity to comment on the subject application. As requested, we are returning the cover memo for the subject application.

Please feel free to contact Bert Saruwatari of my office at [redacted], should you require clarification or any further assistance.

Enclosure
TO: Mr. Dan Davidson, Executive Officer
   Land Use Commission
FROM: Laura H. Thielen, Chairperson
       Commission on Water Resource Management
SUBJECT: WATER USE PERMIT APPLICATION, WUPA No. 863
          Malakole Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application (WUPA No. 863) submitted by Covanta Honolulu Resource Recovery Venture for Well Nos. 1806-09 and -10. Public notice of this application will be published in the Honolulu Star Bulletin issues of October 29, 2008 and November 5, 2008.

We would appreciate your review of the proposed use is described in the attached application (see application Items 6, 7, and 11). Specifically, we request that you confirm for us the current state land use designation for the use TMK listed in the application. Please also tell us whether the current state land use designation is appropriate for the project. Figures 1, 2, and 3, attached to the application, show the well locations and the proposed use location.

Please respond by returning this cover memo along with your review comments by November 20, 2008, which is the legal deadline for objections. If we do not receive your comments by this date, we will assume you have no objections to this application.

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

Response:
[ ] We have no objections or comments.
[ ] Objections attached.
[ ] Only comments attached.

Contact person: BEAT JARIJATARI
Signed: BEAT JARIJATARI
Phone: 808-3822
Date: November 18, 2008
October 28, 2008

TO: Aquatic Resources
    Forestry and Wildlife/Natural Area Reserve System
    Historic Preservation
    State Parks

FROM: Ken C. Kawahara, P.E., Deputy Director
      Commission on Water Resource Management

SUBJECT: Request for Comments
Water Use Permit Application, WUPA No. 863
Malakole Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application (WUPA No. 863) submitted by Covanta Honolulu Resource Recovery Venture for Well No. 1806-09 and 110. Public notice of this application will be published in the Honolulu Star Bulletin issues of October 29, 2008, and November 5, 2008.

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 November 20, 2008, which is the legal deadline for objections. If we do not receive your comments by this date, we will assume you have no objections to this application.

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

Response:

[ ] We have no objections or comments
[ ] Objections attached
[✓] Only comments attached

Contact person: Glenn Higaishi

Phone: [redacted]

Date: 11/18/08
STATE OF HAWAII
Department of Land and Natural Resources
DIVISION OF AQUATIC RESOURCES

MEMORANDUM

TO: Dan A. Polhemus, Administrator
FROM: Glenn R. Higashi, Aquatic Biologist
SUBJECT: Comments on Water Use Permit Application (WUPA No. 856)

Comments  Ken C. Kawahara
Requested By: Commission on Water Resource Management
Date of Request: 10/28/08  Date Received: 10/29/08

Summary of Project

Title: Water Use Permit Application (WUPA No. 863) submitted by Covanta Honolulu Resource Recovery Venture for Well No. 1806-09 and 1806-10 (existing backup and primary water supply wells).

Project By: Covanta Honolulu Resource Recovery Venture
            Kapolei, HI 96707

Location: Malakole System, Ewa Caprock Sector, Kapolei, Oahu TMK: (1) 9-1-026: 030

Brief Description:

The applicant, Covanta Honolulu Resource Recovery Venture (CHRRV) has been contracted by the City and County of Honolulu Department of Environmental Service to expand the H-POWER facility. CHRRV proposes to modify the existing Water Use Permit (WUP) No. 62 to increase the amount of brackish groundwater withdrawal from 2.26 million gallons per day (MGD) to 3.34 million gallons per day from Well No. 1806-09 and 1806-10 (existing backup and primary water supply wells) on its property in Campbell Industrial Park, Kapolei, Oahu, Tax Map Key (1) 9-1-026: 030. This application is to accommodate a third boiler being added to increase municipal solid waste processing from 610,000 tons/yr to 910,000 tons/yr. The new boiler will require 1.08 MGD additional cooling water for facility operations.

Comments:

The Division of Aquatic Resources (DAR) has no objections to this request since the proposed project is not expected to have significant adverse impact on aquatic resources values in the area.
October 28, 2008

TO: Morris Atta, Administrator
Land Division

FROM: Ken C. Kawahara, P.E., Deputy Director
Commission on Water Resource Management

SUBJECT: Request for Comments
Water Use Permit Application, WUPA No. 863
Malakole Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application (WUPA No. 863) submitted by Covanta Honolulu Resource Recovery Venture for Well Nos. 1806-09 and -10. Public notice of this application will be published in the Honolulu Star Bulletin issues of October 29, 2008 and November 5, 2008.

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 November 20, 2008, which is the legal deadline for objections. If we do not receive your comments by this date, we will assume you have no objections to this application.

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

DEM:ss
Attachment(s)

Response:

[ ] A water lease/permit is required of this applicant and an application for such will be requested by our division.

X A water lease/permit is not required of this applicant.

[ ] A water lease/permit has been obtained by the applicant through lease no.

[ ] Other relevant Land Division rules/regulations, information, or recommendations are attached.

[ ] No objections

[ ] Other comments:

Contact person: Gary Martin

Signed: [redacted]

Date: Nov 18 2003
TO:  Aquatic Resources
    Forestry and Wildlife/Natural Area Reserve System
    Historic Preservation
    State Parks

FROM:  Ken C. Kawahara, P.E., Deputy Director
        Commission on Water Resource Management

SUBJECT:  Request for Comments
Water Use Permit Application, WUPA No. 863
           Malakole Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application (WUPA No. 863) submitted by Covanta Honolulu Resource Recovery Venture for Well No. 1806-09 and -10. Public notice of this application will be published in the Honolulu Star Bulletin issues of October 29, 2008 and November 5, 2008.

We would appreciate your review of the attached application for any conflicts of consistencies with the programs, plans, and objectives specific to your division only. Please respond by returning the cover memo form by November 20, 2008, which is the legal deadline for objections. If we do not receive your comments by this date, we will assume you have no objections to this application.

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

DEM:ss
Attachment(s)

Response:

[ ] We have no objections or comments
[ ] Objections attached
[ ] Only comments attached

Contact person:  Nelson L. Ayers

Signed:  Paul G. Corr

Phone:  7-4175

Date:  NOV 17 2008
TO: Aquatic Resources
    Forestry and Wildlife/Natural Area Reserve System
    Historic Preservation
    State Parks

FROM: Ken C. Kawahara, P.E., Deputy Director
      Commission on Water Resource Management

SUBJECT: Request for Comments
        Water Use Permit Application, WUPA No. 863
        Malakole Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application (WUPA No. 863) submitted by Covanta Honolulu Resource Recovery Venture for Well No. 1806-09 and -10. Public notice of this application will be published in the Honolulu Star Bulletin issues of October 29, 2008 and November 5, 2008.

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 November 20, 2008, which is the legal deadline for objections. If we do not receive your comments by this date, we will assume you have no objections to this application.

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

DEM:ss
Attachment(s)

Response:

[ ] We have no objections or comments
[ ] Objections attached
[ ] Only comments attached

Contact person: Daniel S. Quin
Phone: [Redacted]
Signed: [Redacted]
Date: 11/6/08
October 28, 2008

TO: Honorable Micah Kane, Chairperson
Department of Hawaiian Home Lands

Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attn: Mr. Tomas See, Chief, Wastewater Branch
Attn: Stuart Yamada, Chief, Safe Drinking Water Branch

Mr. Clyde W. Namu’o, Administrator
Office of Hawaiian Affairs

Mr. Clifford Lum, Manager
Honolulu Board of Water Supply
Attn: Mr. Chester Lao
Attn: Mr. Barry Usugawa

FROM: Laura H. Thielen, Chairperson
Commission on Water Resource Management

SUBJECT: Water Use Permit Application, WUPA No. 863
Malakole Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application (WUPA No. 863) submitted by Covanta Honolulu Resource Recovery Venture for Well Nos. 1806-09 and -10. Public notice of this application will be published in the Honolulu Star Bulletin issues of October 29, 2008 and November 5, 2008.

We would appreciate your review of the proposed use 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 November 20, 2008, which is the legal deadline for objections. If we do not receive your comments by this date, we will assume you have no objections to this application.

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

DEM:ss
Attachment(s)

Response: [ ] We have no objections or comments
[ ] Objections attached
[ ] Only comments attached

Contact person: Johnny Ong, Eng. on Oahu
Signed: [Signature] Date: 10-31-08
Date: 10-31-08
To: Commission on Water Resource Management
Department of Land & Natural Resources
State of Hawaii
Attn: Denise Mills
From: Lori Morikami, Planner
Planning & Design Section
Email: [redacted] (as of 06-21-2007)
Subject: Well Construction/Pump Installation Permit/Water Use Permit for
Well No. 1806-09 & 10 Nalakole Grd Water - WUP 863
Well No. 1901-09, 2001-12, 1901-05, 2000-06 & 1900-24 Punloa Grd Water
Well No. 2001-05 Punloa Grd Water

Please find enclosed the application of the above subject project.
TO:
Honorable Micah Kang, Chairperson
Department of Hawaiian Home Lands
Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attn: Mr. Tomas See, Chief, Wastewater Branch
Attn: Stuart Yamada, Chief, Safe Drinking Water Branch
Mr. Clyde W. Namu’o, Administrator
Office of Hawaiian Affairs
Mr. Clifford Lum, Manager
Honolulu Board of Water Supply
Attn: Mr. Chester Lao
Attn: Mr. Barry Usugawa

FROM:
Laura H. Thielen, Chairperson
Commission on Water Resource Management

SUBJECT: Water Use Permit Application, WUPA No. 863
Malakole 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 Denise Mills at [REDACTED].

DEM:ss
Attachment(s)

Response:
[ ] We have no objections or comments
[ ] Objections attached
[ ] Only comments attached

Contact person: [REDACTED] Phone: ____________________________
Signed: [REDACTED] Date: [REDACTED]
**COMMISSION ON WATER RESOURCE MANAGEMENT**

**ROUTE SLIP FOR NEW APPLICATIONS**

**FROM:** DENISE  
**DATE:** 16-Oct-08  
**SUSPENSE DATE:** 23-Oct-08

<table>
<thead>
<tr>
<th>TO</th>
<th>INIT</th>
<th>TO</th>
<th>INIT</th>
<th>FOR</th>
<th>PLEASE</th>
</tr>
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<tbody>
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<td>KUNIMURA, I.</td>
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<tr>
<td>FUJI, N.</td>
<td></td>
<td>Mills, D.</td>
<td></td>
<td>5 Signature</td>
<td>1 Review &amp; Comment</td>
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<tr>
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<td>OHYE, M.</td>
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<td>SAKODA, E.</td>
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<td>SWANSON, S.</td>
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<td>IMATA, R.</td>
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<td>YODA, K.</td>
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<td>KAWAHARA, K.</td>
<td></td>
<td>YOSHINAGA, M.</td>
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</tbody>
</table>

**WELL NUMBER:** 1806-09&10  
**WELL NAME:** Backup & Primary  
**WUP Number:** Old= 062/ New= 863

- **WUPA** Aquifer Sys. Area: 30207 - Malakole

**ATTACHMENTS FOR APPLICATION PROCESSING - Both applicant & staff generated**

1. TRANS. LETTER ✔
2. PERMIT PROCESS TABLE ✔
3. CWRM MAP ✔
4. APPL. FORM (11 COPIES) ✔
5. USGS MAPS (11 COPIES) ✔
6. TAX MAPS (11 COPIES) ✔
7. PARCEL OWNER VERIF. ✔
8. CONTRACTOR VERIF. ✔
9. ALL INFO FILLED IN ✔
10. BACKGROUND CHECK ✔
11. $25 FEE DEPOSIT SLIP ✔
12. DHP/CDUP/SMA pre-screen ✔

**(SMA map printout http://gis.hicentral.com/website/parcelzoning/viewer.htm., or INGRID'S SMA/CD MAP)**

**(LUC map printout http://luc.state.hi.us/luc_maps.htm., or INGRID'S SMA/CD MAP)**

**FOLDER:**
- MADE NEW FILE FOLDER, ATTACHED
- FILE FOLDER ALREADY MADE, IN FILE CABINET

**INCOMPLETE ACTION DATES:**

<table>
<thead>
<tr>
<th>DATE</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/20/08</td>
<td>Application complete as received on 10/8/08.</td>
</tr>
<tr>
<td></td>
<td>Drafted for public notice publication on Oct 29</td>
</tr>
<tr>
<td></td>
<td>and Nov 5, of comment deadline Nov 20</td>
</tr>
<tr>
<td></td>
<td>Since agent complete on 10/8, seems we should try to process in this timeline yet.</td>
</tr>
</tbody>
</table>
Mr. S. Samuel Joshi, PE, QEP  
Covanta Honolulu Resource Recovery Venture  
c/o Covanta Energy Corporation

Dear Mr. Joshi:

We acknowledge receipt, on October 8, 2008, of your completed water use permit application (WUPA No.863) for the Backup Well and Primary Well (Well Nos. 1806-09 and -10) at the City and County of Honolulu's municipal waste processing facility in Kapolei. 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 application which will be published in the Honolulu Star Bulletin on October 29, 2008 and November 5, 2008. You will be required to pay the cost to publish the public notice, which usually runs around $400. We will send an invoice shortly after the notice has been published.

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

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

If you have any questions, please contact Denise Mills at

Sincerely,

Signed

KEN C. KAWAHARA, P.E.
Deputy Director

DEM:ss  
Enclosure

c: Glenn Kashiwabara, COVANTA Honolulu Resource Recovery Venture  
Stephen Langham, City and County of Honolulu
TO: Aquatic Resources
    Forestry and Wildlife/Natural Area Reserve System
    Historic Preservation
    State Parks

FROM: Ken C. Kawahara, P.E., Deputy Director
      Commission on Water Resource Management

SUBJECT: Request for Comments
          Water Use Permit Application, WUPA No. 863
          Malakole Ground Water Management Area, Oahu

Transmitted for your review and comment is a copy of a water use permit application (WUPA No. 863) submitted by Covanta Honolulu Resource Recovery Venture for Well No. 1806-09 and -10. Public notice of this application will be published in the Honolulu Star Bulletin issues of October 29, 2008 and November 5, 2008.

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 November 20, 2008, which is the legal deadline for objections. If we do not receive your comments by this date, we will assume you have no objections to this application.

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

DEM:ss
Attachment(s)

Response:

[ ] We have no objections or comments
[ ] Objections attached
[ ] Only comments attached

Contact person: _____________________________ Phone: _____________________________
Signed: _____________________________ Date: _____________________________
TO: Morris Atta, Administrator  
Land Division  

FROM: Ken C. Kawahara, P.E., Deputy Director  
Commission on Water Resource Management  

SUBJECT: Request for Comments  
Water Use Permit Application, WUPA No. 863  
Malakole Ground Water Management Area, Oahu  

Transmitted for your review and comment is a copy of a water use permit application (WUPA No. 863) submitted by Covanta Honolulu Resource Recovery Venture for Well Nos. 1806-09 and -10. Public notice of this application will be published in the Honolulu Star Bulletin issues of October 29, 2008 and November 5, 2008.

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 November 20, 2008, which is the legal deadline for objections. If we do not receive your comments by this date, we will assume you have no objections to this application.

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

DEM:ss  
Attachment(s)  

Response:

[ ] A water lease/permit is required of this applicant and an application for such will be requested by our division.

[ ] A water lease/permit is not required of this applicant.

[ ] A water lease/permit has been obtained by the applicant through lease no.

[ ] Other relevant Land Division rules/regulations, information, or recommendations are attached.

[ ] No objections

[ ] Other comments:

Contact person: ___________________________ Phone: ___________________________

Signed: ___________________________ Date: ___________________________
TO: 
Honorable Micah Kane, Chairperson
Department of Hawaiian Home Lands

Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attn: Mr. Tomas See, Chief, Wastewater Branch
Attn: Stuart Yamada, Chief, Safe Drinking Water Branch

Mr. Clyde W. Namu'o, Administrator
Office of Hawaiian Affairs

Mr. Clifford Lum, Manager
Honolulu Board of Water Supply
Attn: Mr. Chester Lao
Attn: Mr. Barry Usugawa

FROM: Laura H. Thielen, Chairperson
Commission on Water Resource Management

SUBJECT: Water Use Permit Application, WUPA No. 863
Malakole Ground Water Management Area, Oahu

October 28, 2008

Transmitted for your review and comment is a copy of a water use permit application (WUPA No. 863) submitted by Covanta Honolulu Resource Recovery Venture for Well Nos. 1806-09 and -10. Public notice of this application will be published in the Honolulu Star Bulletin issues of October 29, 2008 and November 5, 2008.

We would appreciate your review of the proposed use 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 November 20, 2008, which is the legal deadline for objections. If we do not receive your comments by this date, we will assume you have no objections to this application.

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

DEM:ss
Attachment(s)

Response:

[ ] We have no objections or comments
[ ] Objections attached
[ ] Only comments attached

Contact person: _____________________________ Phone: _____________________________
Signed: _____________________________ Date: _____________________________
Transmitted for your review and comment is a copy of a water use permit application (WUPA No. 863) submitted by Covanta Honolulu Resource Recovery Venture for Well Nos. 1806-09 and -10. Public notice of this application will be published in the Honolulu Star Bulletin issues of October 29, 2008 and November 5, 2008.

We would appreciate your review of the proposed use is described in the attached application (see application Items 6, 7, and 11). Specifically, we request that you confirm for us the current state land use designation for the use TMK listed in the application. Please also tell us whether the current state land use designation is appropriate for the project. Figures 1, 2, and 3, attached to the application, show the well locations and the proposed use location.

Please respond by returning this cover memo along with your review comments by November 20, 2008, which is the legal deadline for objections. If we do not receive your comments by this date, we will assume you have no objections to this application.

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

Response:

[ ] We have no objections or comments.
[ ] Objections attached.
[ ] Only comments attached.

Contact person: ___________________________ Phone: ___________________________

Signed: ___________________________ Date: ___________________________
TO:  Mr. Henry Eng, FAICP, Director  
Department of Planning and Permitting  
City and County of Honolulu  

FROM:  Laura H. Thielen, Chairperson  
Commission on Water Resource Management  

SUBJECT: WATER USE PERMIT APPLICATION, WUPA No. 863  
Malakole Ground Water Management Area, Oahu  

For your review and record, we are forwarding a copy of a water use permit application (WUPA No. 863) submitted by Covanta Honolulu Resource Recovery Venture for Well Nos. 1806-09 and -10, for confirmation of the zoning designation for the proposed use on the attached application, confirmation of the consistency of the proposed project with the current zoning designation, and any special management area issues. Public notice of this application will be published in the Honolulu Star Bulletin issues of October 29, 2008 and November 5, 2008. Please respond by returning this cover memo form by November 20, 2008, which is the legal deadline for objections. If we do not receive your comments by this date, we will assume you have no objections to this application.

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

Response:

[ ] The proposed water use(s) is consistent with the current zoning designation(s).

[ ] This well project [ ] requires [ ] does not require an SMA permit. If an SMA permit is required, it [ ] has been approved [ ] has not been approved and [ ] is currently active [ ] is not currently active.

[ ] Comments attached.

Contact person: ____________________________ Phone: ____________________________

Signed: ____________________________ Date: ____________________________
October 28, 2008

Honorable Mufi Hannemann, Mayor
City & County of Honolulu
City Hall

Dear Mayor Hanneman:

Notice of an Application for Water Use Permit, WUPA No. 863
Malakole 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 and water use permit application (WUPA No. 863) submitted by the Covanta Honolulu Resource Recovery Venture for Well Nos. 1806-09 and -10. This notice 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."

In accordance with the procedure that has been established between our staff and the City's Department of Planning and Permitting (DPP), we have sent copies of the application to DPP and the Board of Water Supply for review and comment. We look forward to receiving comments from DPP and BWS within the next sixty (60) days, on whether the proposed water use is consistent with the City's plans, policies, land use designations, and zoning.

Sincerely,

Laura H. Thielen
Chairperson

Enclosures
TO: Other Interested Parties  
FROM: Ken C. Kawahara, P.E., Deputy Director  
Commission on Water Resource Management  
SUBJECT: Request for Comments  
Water Use Permit Application, WUPA No. 863  
Malakole Ground Water Management Area, Oahu  

October 28, 2008  

In addition to serving you notice as required by 174C-52 (a), Hawaii Revised Statutes, we transmit for your review and comment a copy of a water use permit application (WUPA No. 863) submitted by Covanta Honolulu Resource Recovery Venture for Well Nos. 1806-09 and -10. Public notice of this application will be published in the Honolulu Star Bulletin issues of October 29, 2008 and November 5, 2008.  

We would appreciate your review of the attached application for any conflicts or inconsistencies 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, Hawaii Administrative Rules, and must be filed by the November 20, 2008 deadline. If we do not receive your comments by this date, we will assume you have no objections to the application.  

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

DEM:ss  
Attachment(s)  

Response:  
[ ] We have no objections or comments.  
[ ] Objections attached.  
[ ] Only comments attached.  

Contact person: __________________________ Phone: __________________________  
Signed: __________________________ Date: __________________________
PUBLIC NOTICE

Application for Water Use Permit
Malakole Ground Water Management Area, Oahu

The following application to modify an existing water use permit has been received by the Commission on Water Resource Management. The Commission's receipt of this application is hereby made public in accordance with Section 13-171, Hawaii Administrative Rules, "Designation and Regulation of Water Management Areas."

WUPA No. 863  
Backup Well and Primary Well (Well Nos. 1806-09 and 1806-10)

Applicant:  
Covanta Honolulu Resource Recovery Venture

Landowner:  
City and County of Honolulu  
Department of Environmental Services

Date Application Filed as Complete:  
October 8, 2008

Hydrologic Unit: Aquifer Areas:  
Malakole System, Ewa Caprock Sector, Oahu

Water Source:  
Well Nos. 1806-09 and 1806-10 (existing backup and primary water supply wells)

Quantity Requested:  
3.34 million gallons per day (MGD)

Existing Use:  
A third boiler is being added to increase municipal solid waste processing from 610,000 tons/yr to 910,000 tons/yr. The new boiler will require 1.08 MGD additional cooling water for facility operations. The existing WUP No. 62 allows up to 2.26 MGD for this purpose.

Place of Water Use:  
TMK (1) 9-1-026:030, H-POWER facility in Campbell Industrial Park, Kapolei

Written objections or comments on the above application may be filed by any person who has property interest in any land within the hydrologic unit of the source of water supply, any person who will be directly and immediately affected by the proposed water use, or any other interested person. Written objections 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 November 20, 2008. Objections must be sent to: (1) the Commission on Water Resource Management, [insert address] and (2) the applicant at the above address.

COMMISSION ON WATER RESOURCE MANAGEMENT

KEN C. KAWAHARA, P.E., Deputy Director for
LAURA H. THIELEN, Chairperson

Dated: October 23, 2008

October 7, 2008

State of Hawaii
Department of Land and Natural Resources
Commission on Water Resource Management

Re: Application for Water Use Permit Modification
Water Use Permit No: 62

To Whom It May Concern:

Covanta Honolulu Resource Recovery Venture (CHRRV) has been contracted by the City and County of Honolulu Department of Environmental Services to expand the H-POWER facility. CHRRV has in turn contracted with AMEC Earth & Environmental, Inc. (AMEC) to support the environmental permitting process including modification of the facility's existing Water Use permit.

CHRRV and AMEC are pleased to submit 15 copies of the attached Water Use Permit Modification application to the State of Hawaii Commission on Water Resource Management to support the H-POWER Expansion project. The expansion project consists of adding a third municipal waste combustor unit to the existing 2 (two) refuse derived fuel (RDF) combustors. This expansion requires an increase in flow volume from the two currently permitted and existing caprock supply wells. No new wells are to be constructed. The H-POWER facility is located in the Campbell Industrial Park area of Honolulu County, Hawaii.

Enclosed are the Water Use Permit Application, required attachments, and figures describing the proposed project and the impact to the water use system. We hope that the information provided is sufficient for your approval.

If you have any questions regarding the enclosed please feel free to call me directly at [phone number] or Dr. Russell Okoji of AMEC at [phone number].

Sincerely,

S. Samuel Joshi, PE, QEP
Manager, Environmental Engineering
Covanta Energy Corporation

closures: Application for Ground Water Use Permit
Attachment A - Items 13-16
Figure 1 - Site Map
Figure 2 - TMK Map
Figure 3 - Site Photographs of Sources and Locations of Proposed End Uses
APPLICATION FOR GROUND WATER USE PERMIT MODIFICATION
H-POWER EXPANSION PROJECT
KAPOLEI, O'AHU, HAWAII

SUBMITTED TO:
Department of Land and Natural Resources
Commission on Water Resource Management

SUBMITTED BY:
THE CITY AND COUNTY OF HONOLULU
COVANTA HONOLULU RESOURCE RECOVERY VENTURE

PREPARED BY:
AMEC EARTH & ENVIRONMENTAL, INC.

October 07, 2008
**APPLICATION FOR GROUND WATER USE PERMIT FOR PROPOSED NEW USE IN A DESIGNATED GROUND WATER MANAGEMENT AREA**

**FORM GWUPA-N**

- **Application for New Use**
- **Application to Modify WUP No.**

**STATE OF HAWAII**

**DEPARTMENT OF LAND AND NATURAL RESOURCES**

**COMMISSION ON WATER RESOURCE MANAGEMENT**

**For Official Use Only:**

**RECEIVED**

**OCT 8**

**P 3:07**

**COMMISSION ON WATER RESOURCE MANAGEMENT**

**APPLICANT INFORMATION**

- Name/Contact: Oahu Resource Recovery Venture
- Contact Person: Glen Kaohalii

**SOURCE LANDOWNER'S INFORMATION**

- Name/Company: City and County of Honolulu
- Contact Person: Stephen Langham

**SOURCE INFORMATION**

- Island: Oahu
- Ground-water Management Area: Ewa Caprock Aquifer - Pearl Harbor Groundwater Control Area

**PROPOSED USE INFORMATION**

- **use Numbers**:
  - **1808-06**: Backup Well
  - **1808-10**: Primary Well

**WELL INFORMATION**

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<thead>
<tr>
<th>Well Number</th>
<th>Well Name</th>
<th>Existing or Proposed?</th>
<th>TMK</th>
<th>Flowmeter installed?</th>
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<td>1808-06</td>
<td>Backup Well</td>
<td>Existing</td>
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<td>Yes, date installed</td>
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<tr>
<td>1808-10</td>
<td>Primary Well</td>
<td>Existing</td>
<td>0</td>
<td>Yes, date installed</td>
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</table>

**SUSTAINABLE YIELD FOR ITEM 4**

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<th>Well Number</th>
<th>Yield in gpd</th>
<th>Chloride Content</th>
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<tbody>
<tr>
<td>1808-06</td>
<td>1,000</td>
<td>1,000 mg/l</td>
</tr>
<tr>
<td>1808-10</td>
<td>1,000</td>
<td>1,000 mg/l</td>
</tr>
</tbody>
</table>

**TOTAL QUANTITY OF WATER REQUESTED**

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<tr>
<th>Gallons per day</th>
<th>Average over 1 year</th>
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</thead>
<tbody>
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<td>3.34 M</td>
<td></td>
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</tbody>
</table>

**PROJECT USE(S):**

- Agriculture
- Domestic
- Industrial

**LOCATION OF PROPOSED WATER USE(S):**

- Other...

**NOTE:**

1. Certificates and affidavits that the information provided on this application is accurate and true to the best of their knowledge. Further, the signatures understand that:
   - If necessary, further information may be required before the application is considered complete;
   - If a water use permit is granted by the Commission, the permit is subject to any existing legal use, changes in sustainable yields and current law standards, reserved uses as defined by the Commission, and Hawaiian Homes Lands future use, and the applicant is responsible for paying a public notice fee associated with this application.

**APPLICANT**

- Signature: William Goldate
- Printed Name: William Goldate
- Date: 10/7/08

**SOURCE LANDOWNER**

- Signature: Stephen Langham
- Printed Name: Stephen Langham
- City/County: Honolulu
- Date: 10/7/08
### Proposed New Use or Modified Use Information

**Table 1: Land Use Consistency / Efficiency of Use** (Attach additional copies, if necessary.)

<table>
<thead>
<tr>
<th>Land Use Consistency</th>
<th>Efficiency of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td><strong>B</strong></td>
</tr>
<tr>
<td>PURPOSE / WATER USE CATEGORY</td>
<td>TAKING FOR PROPOSED LOCATION OF USE category descriptions.)</td>
</tr>
<tr>
<td>1. PROPOSED USE OR MODIFIED USE INFORMATION</td>
<td>ATTACH THE FOLLOWING:</td>
</tr>
<tr>
<td>LAND USE CONSISTENCY</td>
<td>EFFICIENCY OF USE</td>
</tr>
</tbody>
</table>

| PURPOSE / WATER USE CATEGORY | TAKING FOR PROPOSED LOCATION OF USE | STATE LAND USE DISTRICT | COUNTY ZONING CODE | CHECK THE APPROPRIATE BOX, and write in the date approved, if applicable. |
| 1. PROPOSED USE OR MODIFIED USE INFORMATION | ATTACH THE FOLLOWING: | CHECK THE APPROPRIATE BOX, and write in the date approved, if applicable. |
| LAND USE CONSISTENCY | EFFICIENCY OF USE | UNITS OR NET ACREAGE | GROUNDWATER OR OPPACRE |

**Column Descriptions:**
- **A**: Purpose / Water Use Category
- **B**: Using for Proposed Location of Use
- **C**: State Land Use District
- **D**: County Zoning Code
- **E**: Check the appropriate box, and write in the date approved, if applicable.
- **F**: Check the appropriate box, and write in the date approved, if applicable.
- **G**: Units or Net Acreage
- **H**: Groundwater or OPPACRE
- **I**: Justification for Quantity of Water Requested

**Uses That Require Potable (Drinking) Water**

<table>
<thead>
<tr>
<th>NA</th>
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</thead>
</table>

**Uses That Do Not Require Potable Water**

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<tr>
<th>INDEL</th>
<th>1</th>
<th>026</th>
<th>030</th>
<th>Urban</th>
<th>I-2</th>
<th>NA</th>
<th>NA</th>
<th>3.34 MGD</th>
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<tbody>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.34 MGD</td>
</tr>
</tbody>
</table>

A third boiler is being added to increase MSW processing from 610,000 tons/year to 910,000 tons/year. This new boiler requires 1.08 MGD of additional cooling water.

Please explain if there are any limitations (e.g., legal, contractual) on the proposed water use(s) described in Table 1. Ref. §174C-51(S), HRS.
12. TABLE 2: IRRIGATION INFORMATION

List all crops that will be grown, including landscape and golf course irrigation uses. Copy Table 2 and attach additional sheets to complete your list, if necessary.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>CROP</td>
<td>TOTAL ACREAGE</td>
<td>NET IRRIGATED ACREAGE</td>
<td>BEGIN GROWTH PERIOD (month)</td>
<td>END GROWTH PERIOD (month)</td>
<td>IRRIGATION SYSTEM (refer to instructions)</td>
<td>IRRIGATION PRACTICE (refer to instructions)</td>
<td>COMMENTS (continued comments below, if more space is needed)</td>
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<tr>
<td>---</td>
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</tr>
<tr>
<td>zone</td>
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<td>parcel</td>
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Comments (continued from Column I). Please clearly indicate the crop (i.e., the row in table) these comments relate to.
### 13. TABLE 3: ALTERNATIVES ANALYSIS

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<td>Desalination</td>
<td>Attach additional sheets if necessary.</td>
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<td>Surface water</td>
<td>Attach additional sheets if necessary.</td>
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<tr>
<td>Other (specify)</td>
<td>Attach additional sheets if necessary.</td>
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### 14. PUBLIC INTEREST

§174C-2(C), HRS states: The state water code shall be liberally interpreted to obtain maximum beneficial use of the waters of the State for purposes such as domestic uses, aquaculture uses, irrigation and other agricultural uses, power development, and commercial and industrial uses. However, adequate provision shall be made for the protection of traditional and customary Hawaiian rights, the protection and recreation of fish and wildlife, the maintenance of proper ecological balance and scenic beauty, and the preservation and enhancement of waters of the State for municipal uses, public recreation, public water supply, agriculture, and navigation. Such objectives are declared to be in the public interest.

Explain below how the proposed new use(s) in your application are consistent with the public interest.

See Attachment A

### 15. INTERFERENCE WITH THE RIGHTS OF THE DEPARTMENT OF HAWAIIAN HOME LANDS

Explain below how the proposed new use(s) of water will not interfere with the rights of the Department of Hawaiian Home Lands, as provided in section 221 of the Hawaiian Homes Commission Act.

See Attachment A

### 16. INTERFERENCE WITH ANY EXISTING LEGAL USES

Explain below how the proposed new use(s) of water will not interfere with any other existing legal use(s) of water.

See Attachment A
INSTRUCTIONS FOR FILLING OUT APPLICATION FOR GROUND WATER USE PERMIT FOR A PROPOSED NEW USE OR TO MODIFY A GROUND WATER USE PERMIT

This application form is to be used for proposed new uses, including modifications of existing ground water use permits. If you are applying for an existing ground water use, which are uses prior to the effective date of designation, do not use this form. Instead, use the Application for Ground Water Use Permit for Existing Use (Form GUPU-E) for existing uses.

Most questions can be addressed by visiting our website or by contacting the Regulation Branch at 587-0225 or by e-mail: permits@hawaii.gov. If you need further assistance, call the Regulation Branch. The current application forms are available at: http://www.hawaii.gov/dlnr/cwrm/resources_permits.htm.

REQUIREMENTS FOR A COMPLETE APPLICATION

a. Fill in the most recent application form. A current form can be obtained by going to our website or contacting us by phone or e-mail.

b. Print in ink or type the information on the application.

c. The application form has a total of 18 items on 4 pages. Items 11, 12, and 13 are tables, with multiple line items. Fill in the required information for every item in the application form as it relates to your proposed new use or permit modification.

d. Enclose a check for the non-refundable filing fee of $25 payable to: Department of Land and Natural Resources. (Government agencies are not required to pay the filing fee.)

e. Please be aware that the applicant is responsible for paying the cost of publishing any required public notices associated with this application. The cost for public notices is currently approximately $400.00. Commission staff will provide instructions later in the permit process regarding payment of these costs.

f. Mark the proposed source and end use location(s) on the appropriate USGS quad map (scale 1:24,000) and property tax map, and attach these maps to the application.

g. Attach photos showing the existing or proposed source(s), meter(s) (if applicable), and end use area(s).

h. Both the applicant and the landowner where the source is located ("source landowner") must sign the application form in ink.

i. Submit the original application, 15 copies of the application form and all attachments (maps, photos, and other attachments), and the filing fee to the Commission on Water Resource Management, P.O. Box 621, Honolulu, HI 96809.

Further, the applicant must address §174C-49(a) of the State Water Code, which states that:

To obtain a permit pursuant to this part, the applicant shall establish that the proposed use of water:

(1) Can be accommodated with the available water source;
(2) Is a reasonable-beneficial use as defined in section 174C-3;
(3) Will not interfere with any existing legal use of water;
(4) Is consistent with the public interest;
(5) Is consistent with state and county general plans and land use designations;
(6) Is consistent with county land use plans and policies; and
(7) Will not interfere with the rights of the department of Hawaiian home lands as provided in section 221 of the Hawaiian Homes Commission Act.

According to §174C-3, HRS. "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 both reasonable and consistent with the state and county land use plans and the public interest.

Public interest is described in §174C-2(h), HRS, which states: "the state water code shall be liberally interpreted to obtain maximum beneficial use of the waters of the State for purposes such as domestic uses, aquaculture uses, irrigation and other agricultural uses, power development, and commercial and industrial uses. However, adequate provision shall be made for the protection of traditional and customary Hawaiian rights, the protection and propagation of fish and wildlife, the maintenance of proper ecological balance and scenic beauty, and the preservation and enhancement of waters of the State for municipal uses, public recreation, public water supply, agriculture, and navigation. Such objectives are declared to be in the public interest.

NOTE: Filing in the application complete will address §174C-49(a), HRS.

LINE-BY-LINE INSTRUCTIONS FOR COMPLETING THE APPLICATION FORM

APPLICANT INFORMATION

In accordance with the Hawaii Water Code, both the applicant and the person who owns the property where the water source is located are required to apply for a water use permit. §174C-51(1)(B), HRS, states, "In the event a lessee, licensee, developer, or any other person with a terminable interest or estate in the land, which is the water source of the permitted water, applies for a water permit, the landowner shall also be stated as a joint applicant for the water permit."

1. APPLICANT INFORMATION Fill in the information for the applicant. This should be the person who will be responsible for all conditions of the water use permit.

2. SOURCE LANDOWNER INFORMATION Fill in the information for the landowner of the property where the proposed ground water source (e.g., well, modified spring, tunnel, shaft, etc.) is located.

SOURCE INFORMATION

3. ISLAND Check the appropriate box, noting the island where the source is located.

4. GROUND-WATER MANAGEMENT AREA The name of the aquifer system area where the source is located.

5. SUSTAINABLE YIELD The sustainable yield for the aquifer system area.

6. SOURCE INFORMATION

   a. WELL NUMBER If the source already has a state-assigned well number, write the state well number here.

   b. WELL NAME If the proposed source already has a name, write the name here. Otherwise, give it a short name that will differentiate it from other wells.

   c. SOURCE TMK Fill in the current Tax Map Key number of the parcel where the source is located.

   d. FLOWMETER INFORMATION Check either "Yes" or "No." If you answer "Yes," write in the date the flowmeter was installed and month/day/year in the space provided. (The definition of a working flowmeter is a water meter with a totalizer that gives the total quantity of water used from a source.)

PROPOSED USE INFORMATION

(Ref. §§ 174C-51(4), (5), (6), HRS)

6. TOTAL QUANTITY OF WATER REQUESTED Enter the amount of water requested as gallons per day (GPD) averaged over one year. Fill out Table 1 and enter the amount in Box 14, "Total Use Requested."

FORM GUPU-A (August 7, 2008)
Page 5 of 7
7. **PROPOSED USE(S)** Check all the boxes that apply for the proposed use. Refer to the instructions for Table I: Land Use Consistency/Efficiency of Use. Item 1: Purpose/Water Use Category below to determine which water use category to use.

8. **LOCATION OF PROPOSED WATER USE(S)** Show the location of the proposed use on the same USGS and TMK maps as the proposed source location. Otherwise, attach similar maps and show the location of the proposed use.

**APPLICANT SIGNATURES REQUIRED**

9. **APPLICANT** The Applicant must sign and date the application. Please print or type the Applicant’s name in the space provided.

10. **SOURCE LANDOWNER** The Source Landowner must also sign and date the application. Please print or type the Source Landowner’s name in the space provided.

**PROPOSED NEW USE OR MODIFIED USE INFORMATION**

11. **Table 1: LAND USE CONSISTENCY / EFFICIENCY OF USE** Provide information on all of the proposed uses you are applying for or seeking to modify.

   In the space provided below the table or on a separate sheet, explain whether there are any limitations [e.g., a contract or other legal agreement(s)] on your proposed water use(s), as required by § 174C-5 HRS.

   **A. PURPOSE / WATER USE CATEGORY** For each purpose of use, choose one of the categories listed in the table below and enter the appropriate code in the space provided (e.g., AGRAQ, IRRGC, etc.)

   **B. USE TMK** Enter the tax map key (TMK) number for the parcel of land over which the use is applied. There should only be one parcel for each line. Also: attach
   
   (1) A TMK map (or maps) showing each of the lots listed and the boundaries of the end use area(s); and
   
   (2) A photograph of the area of use.

   **C. STATE LAND USE DISTRICT** Write in the name of the current land use district. To find the Land Use District, contact the Land Use Commission at  or call the City and County of Honolulu at  or .

   **D. CDUP REQUIRED?** Check the appropriate box. If a Conservation District Use Permit (CDUP) is required and you have a CDUP applicable to this project, check “Yes” and write in the date approved in the space provided (month/day/year). If your parcel is in a conservation district, as indicated in Column C of this table, contact the Office of Conservation and Coastal Lands at  to find out if a CDUP is required.

   **E. COUNTY ZONING CODE** To find out the County Zoning Code for Oahu, contact the City and County of Honolulu at .

   For Maui County, contact at .

   **F. SMAP REQUIRED?** Check the appropriate box. If a Special Management Area Permit (SMAP) is required, and you have an SMAP applicable to this project, check “Yes” and write in the date approved in the space provided (month/day/year). To find out if your parcel is in a Special Management Area and requires an SMAP, for Oahu call the City and County of Honolulu at  or for Maui County call the Planning Department at .

   **G. UNITS OR NET ACREAGE** This is the total number of units or the net number of acres as a basis for calculating your requested allocation. “Unit” can mean a dwelling unit, number of people, or number of animals. Some examples of units or acreages to enter in this column would be 400 dwelling units, 500 people, or 3.74 acres.

   **H. GPD/UNIT or GPD/ACRE (GPD = gallons per day) Enter the gallons per day per unit (GPD/Unit) or gallons per day per acre (GPD/Acre) for each water use category listed in Column A.**

   **I. QUANTITY OF USE.** Enter the proposed quantity of water use in gallons per day (GPD). Justification (see Column J) for the quantity(ies) requested may depend on the information provided in columns G and H of this table.

   **J. JUSTIFICATION FOR QUANTITY OF WATER REQUESTED** Explain how you are justifying the quantity of water requested for each use, in Column I of this table. Attach additional sheets, if necessary, showing how the proposed quantity was calculated. For all proposed irrigation uses, you are required to also complete Item 12 (Table 2) of the application.

   **K. TOTAL POTABLE USE** Add the quantities listed in the Column I for proposed potable water use(s). Enter the total quantity in gallons per day (GPD) in Box K.

   **L. TOTAL NON-POTABLE USE** Add the quantities listed in Column I for proposed uses that do not require potable water. Enter the total quantity of proposed non-potable water use in gallons per day (GPD) in Box L.

   **M. TOTAL QUANTITY OF WATER REQUESTED** Add the totals in Box K and Box L, and enter the sum in Box M. The quantity in Box M should be the same as the amount entered under Item 6 on the page 1 of the application.
12. TABLE 2: IRRIGATION INFORMATION

On Table 2, provide the information requested for all the crops you are proposing to grow, including landscapes and golf course turf and plants. Enter only one crop and one parcel number (TMK) per line. For multiple crops, list each one as a separate line item. All proposed or modified irrigation uses you are applying for must be listed. Attach additional copies of Table 2, if necessary.

A. TMK FOR PROPOSED LOCATION OF USE
Enter the parcel number where the crop will be grown. Also, attach a property tax map with an outline around the area(s) of proposed use and a photograph of each area of proposed use.

B. CROP
Enter the crop type

C. TOTAL ACREAGE
Enter the total acreage of the parcel listed.

D. NET IRRIGATED ACREAGE
Enter the acreage that the specific crop will be grown.

E. BEGIN GROWTH PERIOD (MONTH)
This is the month of the start of the growth cycle.

F. END GROWTH PERIOD (MONTH)
This is the month of the end of the growth cycle.

G. IRRIGATION SYSTEM
Enter one of the following:
- TRICKLE, DRIP
- TRICKLE, SPRAY
- MULTIPLE SPRINKLERS
- SPRINKLER, CONTAINER NURSERY
- SPRINKLER, LARGE GUNS
- SUBPACI, SUBIRRIGATION
- CROWN FLOOD
- FLOOD (TARO)

OTHER – Please describe in the space provided for comments (Column I and/or below the table).

H. IRRIGATION PRACTICE
Enter one of the following:
- IRRIGATE TO FIELD CAPACITY
- APPLY A FIXED DEPTH PER IRRIGATION
- DIFFICULT IRRIGATION

OTHER – Please describe in the space provided for comments (Column I and/or below the table).

13. TABLE 3: ALTERNATIVES ANALYSIS

You should address every alternative and explain why each alternative is or is not available for your proposed potable and non-potable water needs. Other alternatives (last row of Table 3), may include stormwater reclamation, rainwater catchment, or other alternatives not already listed above.

Surface water is defined in §174C-3, HRS as: ... both contained surface water—that is, water upon the surface of the earth in bounds created naturally or artificially including, but not limited to, streams, other watercourses, lakes, reservoirs, and coastal waters subject to state jurisdiction—and diffused surface water—that is, water occurring upon the surface of the ground other than in contained waterbodies. Water from natural springs is surface water when it exits from the spring onto the earth’s surface.

14. PUBLIC INTEREST

Explain in the space provided or on a separate sheet why the proposed new use(s) on your application are consistent with the public interest.

15. INTERFERENCE WITH THE RIGHTS OF THE DEPARTMENT OF HAWAIIAN HOME LANDS

Explain in the space provided or on a separate sheet how the proposed new use(s) of water will not interfere with the rights of the Department of Hawaiian Home Lands, as provided in section 221 of the Hawaiian Homes Commission Act. To inquire about potential interference, you may contact the Department of Hawaiian Home Lands Planning Office at...

The State Water Code in §174C-101(a), HRS [Native Hawaiian water rights], states: Provisions of this chapter shall not be construed to amend or modify rights or entitlements to water as provided for by the Hawaiian Homes Commission Act, 1920, as amended, and by chapters 167 and 168, relating to the Molokai irrigation system. Decisions of the commission on water resource management relating to the planning for, regulation, management, and conservation of water resources in the State shall, to the extent applicable and consistent with other legal requirements and authority, incorporate and protect adequate reserves of water for current and foreseeable development and use of Hawaiian home lands as set forth in section 221 of the Hawaiian Homes Commission Act.

16. INTERFERENCE WITH ANY EXISTING LEGAL USES

Explain in the space provided or on a separate sheet how the proposed new use(s) of water will not interfere with any other existing legal use(s) of water.
Commission on Water Resource Management
Department of land and Natural Resources
H-POWER Application for Water Use Permit Modification
Attachment A

13. Alternatives Analysis

Municipal Sources:
A. Potable water is not required for the industrial processes at the H-POWER facility. Specifically, caprock water is used and will be used solely as make-up water for the cooling tower. Brackish/saline water from the coralline water table caprock aquifer is the current source of water beneath the Site and is adequate for these operations. The facility is currently permitted for a maximum of 2.26 MGD. Groundwater extraction wells have already been constructed, permitted, and utilized for over 15 years.
B. There are no available municipal sources of non-potable water of the required volume.

Wastewater Reuse:
A. There are no current wastewater reuse sources of potable wastewater. Additionally, potable water is not required for use in plant operations. Brackish/saline water from the coralline water table caprock aquifer is the current source of water and is adequate for industrial processes at the facility.
B. Re-use of non-potable wastewater would not provide the volume of water required for plant operations. Additionally, infrastructure is not currently in place for this option.

Ditch System:
A. There are no current ditch system sources of potable water. Additionally, potable water is not required for use in plant operations. Brackish/saline water from the coralline water table caprock aquifer is the available source of water in the vicinity of the site and is adequate for use as make up water for the cooling towers.
B. A ditch system is not a feasible alternative to provide non-potable water. Ditch water would not provide the volume of water required for plant operations. Additionally, infrastructure is not currently in place for this option.

Desalinization:
A. There are no sources of potable desalinated water in the area.
B. Desalinization is not required prior to use for industrial operations at the facility. Brackish/saline water from the coralline water table caprock aquifer is the available source of water in the vicinity of the site and is adequate for use as make up water for the cooling towers.

Surface Water:
A. There are no current surface water sources of potable water. Additionally, potable water is not required for use as plant cooling water. Brackish/saline water from the
coralline water table caprock aquifer is the available source of water in the vicinity of the site and is adequate for use as make up water for the cooling towers.

B. There are no surface water basins available in this area. Additionally, any surface water utilized would be of higher quality than what is required in regards to salinity and other water quality parameters.

14. Public Interest

The Expansion will increase the energy generated from the waste facility’s waste disposal operations, increase the energy and recyclable metals recovered annually, and further reduce the need for landfiling of municipal solid waste in Oahu. These factors are all in the best interests of the public.

The environmental characteristics of the Expansion will fully comply with federal, state, and local permits and programs designed for the protection and stewardship of Hawaii’s environmental resources. Furthermore, the City of Honolulu has deemed that a full assessment of the potential environmental consequences of the Expansion be prepared for community review and comment. This will include an assessment of the existing natural and human environment, including potential impacts and mitigation measures, as well as an assessment of the project’s conformance to federal, state, and local planning polices, and a sustainability analysis.

The Expansion is anticipated to be an economic stimulus in multiple ways

- H-POWER currently employs 145 island residents and has a $10 million annual payroll. The Expansion is anticipated to result in 300 construction jobs and several additional operational positions.

- H-POWER utilizes local vendors whenever possible to purchase goods, services and equipment. Each year H-POWER spends more than 8.5 million locally on equipment and services from Hawaii vendors, further boosting the local economy. The Expansion is anticipated to result in significant local spending during the construction period.

- The existing H-POWER Facility is a proven and cost effective solution for the management of municipal solid waste (MSW) on the Island of O‘ahu. The Expansion will ensure that the growing demand to manage MSW on the O‘ahu is addressed. The construction of the Expansion will not interfere with the operation of the existing Facility.

- H-POWER has been producing energy from waste since it started operation. It produces about 5 percent of the power used on the Island avoiding the need to import expensive oil, provides a significant reduction in greenhouse gas emissions, and reduces the need for landfiling on the Island.

Social Characteristics

The H-POWER facility has been operational for 18 years and its reliable service to the City of Honolulu was demonstrated by the recent celebration of the processing of its 11,000,000th ton of solid waste on March 15, 2008. It is anticipated that H-
POWER, with the planned Expansion at the existing industrial site, would continue to provide reliable service to the City and would continue its existing role as an important community partner, with participation in local organizations such as:

- Sponsorship of the Kapolei Rotary Club;
- Sponsorship of the Kapolei Family Fun Run to benefit literacy programs;
- Sponsorship of the Waianae Comprehensive Health Care Fun Run;
- Participation in Hawaii Food Bank's annual food drive;
- Sponsorship of statewide science fair and school career days and other youth and school programs and initiatives;
- Membership and service on the Board of Directors for the Campbell Local Emergency Action Network (CLEAN) interfacing with the neighboring communities on safety, environmental, public education, and emergency action needs and response; and
- Provision of over 100 tours and exhibits annually for the community, schools, elected officials, and civic organizations.

Additionally, the Facility has received recognition for its exemplary operation and safety record:

- Recipient of coveted U.S. EPA environmental excellence award. H-POWER is the first and only U.S. EPA National Environmental Performance Track site in Hawaii. As such, H-POWER has met all criteria and demonstrated excellence in environmental performance management systems and training, continuous improvement, and community outreach.
- Recipient of U.S. OSHA Safety award. COVANTA - H-POWER is one of only five companies in Hawaii to receive the U.S. OSHA Voluntary Protection Program (VPP) award for excellence in Safety.

15. Interference with the Rights of the Department of Hawaiian Homelands

The proposed increase of use in water will not interfere with Section 221 of the Hawaiian Home Commission Act. The water is currently being used for industrial processes such as cooling, quenching ash or for washdown procedures and is not suitable for domestic, agriculture, or livestock due to its brackish nature.

16. Interference with any Existing Legal Issues

The proposed increase of use will not interfere with any existing legal uses of water. The Department of Land and Natural Resources Commission on Water Resource Management has permitted the withdrawal of 2.26 MGD from the current wells. This application proposes to increase the maximum withdrawal to support a third boiler and increase the facility's waste processing capacity. The saline groundwater is withdrawn from the underlying coralline water table aquifer underlying the Campbell Industrial Park. The supply of this water is unlimited as the ocean is the source of recharge. Existing use of this aquifer is as a receiving body for injected effluents and a source of brackish cooling water. There are no individual household uses and would be of no impact to existing permitted or preserved areas.
Legend

- Well Location
- Site Boundary
- TMK Boundaries

Site Map
H-POWER Application for Ground Water Use Permit Modification.

FIGURE 1
FIGURE 2

TMK Map

H-POWER Application for Ground Water Use Permit Modification.
Site Photographs of the Sources and Locations of Proposed End Uses

H-POWER Application for Ground Water Use Permit Modification.

Legend
△ Well Location
Cooling Tower Area

Site Boundary
TMK Boundaries

FIGURE 3
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<td>TOTAL $50.00</td>
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REMARKS: LINE (1) Kohanaiki MW #300, 301, 302
LINE (2) 1806-09, 10
LINE (3)  
LINE (4)  
LINE (5)  
LINE (6)  
LINE (7)  
LINE (8)  
LINE (9)  
LINE (10)  
Mr. Robert A. Webster  
Facilities Manager  
Honolulu Resource Recovery Venture  

Dear Mr. Webster:

Water Use Permit No. 62 for Well Nos. 1806-09 & 10

This is in response to a January 27, 2005 telephone call from Mr. Glenn Kashiwabara, inquiring as to the status of the subject water use permit. This permit was approved by the Board of Land and Natural Resources (BLNR) at its meeting on October 11, 1985 under Chapter 177, Hawaii Revised Statutes (HRS). An Additional Condition of the permit specifies that the term of the permit shall be twenty years from the date of issuance, subject to review and adjustment every five years.

Following the repeal of Chapter 177 HRS, effective 7/1/89, and its replacement with Chapter 174C HRS, certified water uses and permitted water uses approved by the BLNR are recognized by the Commission on Water Resource Management (Commission) as permanent water use permits. The permits will remain active until the Commission conducts a compliance review, as provided in Section 174C-56 HRS:

"At least once every twenty years, the commission shall conduct a comprehensive study of all permits issued under this chapter to determine whether the conditions on such permits are being complied with. The commission shall prepare a formal report to the legislature which shall be available to the public."

The Commission anticipates conducting this review in the 2006-2007 timeframe with a formal report to the legislature by May 2008. Until such time that a review and formal report are made, Water Use Permit No. 62 for Well Nos. 1806-09 & 10 will remain active, unless a prior modification or revocation action is initiated by either the Commission or the permittee.

Sincerely,

[Signature]

YVONNE Y. IZU  
Deputy Director

LYN:ss

c: Glenn Kashiwabara, Honolulu Resource Recovery Venture
Roy Hardy
02/20/2002 12:16 PM
To: Lenore Y Nakama/DLNR/Stat
Subject: Re: plz. call Glenn @ H Power 682-0273 ...

Probably needs to submit WUPA to continue if it expires. Benefit of going now is that it would become a permanent and only subject to review rather than expiring on 20 yrs.

Lenore Y Nakama
02/20/2002 10:02 AM
To: Roy Hardy/DLNR/Stat
Subject: plz. call Glenn @ H Power 682-0273 ...

This was issued under Chapter 177 by BLNR specifying a 20 year term. What is the renewal process? Can we make administrative re-issuance and attach our latest set of standard conditions or do these have to go for CWRM action to renew? (I'll call the guy back after I get your response.)

----- Forwarded by Lenore Y Nakama/DLNR/StateHIUS on 02/20/2002 09:58 AM -----

Kathy S Yoda
02/20/2002 08:39 AM
To: Lenore Y Nakama/DLNR/Stat
Subject: plz. call Glenn @ H Power 682-0273 ...

re: a permit for Well No. 1806-09 & 10 that was issued to City & County on Oct. 11, 1985. this permit will expire in 2005 and he wants to know when he would need to initiate the renewal process
PERMIT
TO WITHDRAW AND USE GROUND WATER

Applicant: City & County of Honolulu  Application Date: September 3, 1985
Address: Ground Water Control Area: Pearl Harbor  Subarea: Caprock

Well(s) Name: __________________ State Well No.(s): 1806-09, 10

Amount of Withdrawal: (Average Annual) 2.26 mgd (Max. Day) 2.26 mgd

Beneficial Purpose of Withdrawal: Industrial

Area or Projects Served: Honolulu Resource Recovery Project

The applicant is hereby granted a permit to withdraw and use ground water from the source identified above, in accordance with Chapter 177, HRS, Administrative Rule, Chapter 166 of Title 13; and the following:

General Conditions. (1) the water use authorized by this permit must be for the beneficial purpose described in this permit; (2) the use must not interfere substantially and materially with existing individual household uses, existing preserved uses, or existing permitted uses; (3) the use is subject to the shortage and emergency powers of the Board of Land and Natural Resources; (4) this permit may be suspended or revoked in accordance with Chapter 166 of Title 13; (5) the permit holder may be required to relinquish this permit at any time or specified time after issuance to the Board of Land and Natural Resources in accordance with Chapter 166 of Title 13; (6) an approved flowmeter(s) must be installed to measure withdrawals; and a record of the withdrawals must be kept and reported to the Department of Land and Natural Resources, Division of Water and Land Development, P.O. Box 373, Honolulu, Hawaii 96809, on a monthly basis.

Additional Conditions.

The term of the permit shall be twenty years from the date of issuance, subject to review and adjustment every five years.

The development of the ground water source shall be completed within 24 months from the date of permit issuance.

The issuance of this permit was approved by the Board of Land and Natural Resources at its meeting on October 11, 1985.

Chairperson of the Board
Date of Issuance: 10/21/85
Warning of Potential Water Shortages
Ewa Caprock Water Management Area

The Commission has recently approved additional temporary water use permits in the Ewa Caprock Water Management Area. As a part of these approvals, the Commission has directed staff to issue a formal warning of potential future ground water shortages in this water management area to all other existing water use permittees.

The reason for concern is that as urbanization continues to replace existing sugarcane, there is potential for the caprock water to increase beyond usable brackish limits unless the irrigation recharge supplied to the caprock by Oahu Sugar Company (OSCo.) is replaced by some other means. It is possible that by 1995, recharge from sugarcane irrigation may completely cease.

Staff is presently working on the Ewa Caprock Regional Plan which is, in part, an effort to bring about alternative sources to supply non-potable demands in the Ewa region. This effort is to supplement and provide a back-up non-potable source to the caprock aquifer. If you are interested in participating in this regional plan, please contact us.

Staff is also requesting all permittees, who have not done so already, to submit a water shortage plan. Your water shortage plan simply identifies what you are willing to do should the Commission declare a water shortage situation in the Ewa Caprock 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 contact Roy Hardy at [redacted]

Sincerely,

RAE M. LOUI
Deputy Director

RH:ko
September 9, 1985

Mr. Russell L. Smith, Jr.
Director and Chief Engineer
Department of Public Works
City and County of Honolulu

Dear Mr. Smith:

This is to acknowledge receipt of your Water Use Permit and Well Drilling Permit applications for two wells at Campbell Industrial Park.

My staff is processing the applications and will call your staff if more information is needed or if there are any questions.

Sincerely,

MANABU TAGOMORI
Manager-Chief Engineer

ES:ko
Chairperson and Members
Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

Gentlemen:

City and County of Honolulu,
Department of Public Works Water Use Permit
Application, Pearl Harbor Ground Water Control Area, Oahu

The City and County of Honolulu, Department of Public Works has submitted a Water Use Permit application to withdraw 2.26 mgd (million gallons per day) average annual of brackish caprock water from two new wells in the Caprock Subarea of the Pearl Harbor Ground Water Control Area. The water will be used by Honolulu Resource Recovery Venture at Campbell Industrial Park as make-up water for the cooling tower system of the proposed Honolulu Resource Recovery Project. Withdrawal from the caprock aquifer will not affect the Koolau and Waianae basal aquifers.

RECOMMENDATION:

That the Board approve the issuance of a Water Use Permit to the City and County of Honolulu, Department of Public Works to use 2.26 mgd average annual of brackish caprock water from two wells for industrial use, subject to any special conditions and applicable laws, rules and ordinances.

Respectfully submitted,

MANABU TAGOMORI
Manager-Chief Engineer

APPROVED FOR SUBMITTAL:

SUSUMU ONO, Chairperson

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

10-11-85

ITEM D-3
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<thead>
<tr>
<th>TO</th>
<th>INITIAL</th>
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<td>T. Fujii</td>
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<td>H. Sakai</td>
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<td>H. Morimatsu</td>
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<td>Review &amp; Comment</td>
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<td>A. Ching</td>
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<td>Draft Reply By</td>
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<tr>
<td>G. Morimoto</td>
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<td>Acknowledge Receipt</td>
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<td>S. Samuels</td>
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Please review & comment on the draft reply. Let's discuss how fast we can process things.
APPLICATION FOR: (check one)

☒ PERMIT TO WITHDRAW WATER FOR BENEFICIAL USE
☐ PERMIT TO SUPPLY WATER FOR BENEFICIAL USE

Instructions: Fill out, sign, and send application with pertinent attachments to Dept. of Land & Natural Resources. A non-refundable filing fee of $100 is required, excepting military, federal, state, and local government agencies.

1. NAME OF APPLICANT
   City and County of Honolulu
   Address: ____________________________________________ phone: _____________________________

2. REQUESTED BENEFICIAL USE OF WATER:
   ☐ Domestic ☐ Municipal ☐ Military ☐ Agricultural ☐ Industrial ☐ Other (specify)

   Appropriately describe nature and purpose of requested use: Withdrawal of brackish / saline ground water for use as makeup water in a cooling tower. Withdrawal from this well will be as a backup to the adjacent well.

   Proposed commencement date of water use: April, 1988

3. REQUESTED AMOUNT OF WITHDRAWAL OR SUPPLY:
   Average Annual 2.26 mgd; Maximum Month 2.26 mgd; Maximum Day 2.26 mgd

   Appropriately describe schedule or times of taking requested withdrawal: Withdrawal will be as a backup to the adjacent well which is proposed to withdraw 24 hours a day, 365 days a year.

4. NATURE AND TERM OF REQUESTED PERMIT:
   ☐ Temporary ☒ Permanent

   Requested period of permit: 20 years

5. PROPOSED SOURCE OF WATER SUPPLY:
   ☐ Existing source ☐ Modification of existing source ☒ New source

   Briefly describe existing or proposed source and any related facilities and submit map, plot plan, and plans or drawings of source of supply: Source is brackish / saline water well in coralline water table caprock aquifer. This well is proposed as a backup to an adjacent proposed well.

   If construction work is proposed for new or modified existing source, give:
   Commencement Date 11-1-85 Completion Date 5-15-86

6. ASSESSMENT OF REQUESTED WATER USE OR SUPPLY

   In a separate attachment to this application, applicant must provide a written assessment addressing the desirability of issuing the requested permit, including such considerations as the availability of water, the beneficial purpose of the proposed water use, and the impact, if any, of the proposed water use on existing permitted uses, preserved uses, and individual household uses.

   Signature: ____________________________ Date: 6/6/85
   Water User or Supplier
   Russell L. Smith, Jr., Director and Chief Engineer
   City and County of Honolulu

   Signature: ____________________________ Date: 6/6/85
   Owner of Water Source
   Russell L. Smith, Jr., Director and Chief Engineer
   City and County of Honolulu

   In accordance with Department Regulation No. 8, every permit approved and issued by the Board of Land & Natural Resources shall be for a specified period of time, for a specified beneficial use, subject to suspension and revocation, and subject to the shortage and emergency powers of the Board. Consideration of applications for a permit shall include: availability of water, beneficial purpose of water use, non-impairment of the most beneficial use and development of the water resources in the designated area, and no substantial and material interference with existing uses of water.

   For Official Use:
   Docket No. 180 days 03/18/86
   Board Approved Disapproved
   Well No. 13.06-0
6. Assessment of requested water use as supply

The water to be used is brackish to saline groundwater from the coralline water table aquifer underlying the Campbell Industrial Park. The supply of this water is unlimited as the ocean will become the main source of recharge.

The proposed water use is as makeup water for the cooling tower system, an important part of the proposed Honolulu Resource Recovery Project. The project is of major importance to the people of Oahu.

Existing use of the water table aquifer in the vicinity is as a receiving body for injected effluents and as a source of brackish cooling water. There are no individual household uses. There would be no impact on existing permitted or preserved uses.
APPLICATION FOR: (check one)
✓ PERMIT TO WITHDRAW WATER FOR BENEFICIAL USE
☐ PERMIT TO SUPPLY WATER FOR BENEFICIAL USE

Instructions: Fill out, sign, and send application with pertinent attachments to Dept. of Land & Natural Resources, P.O. Box 71, Honolulu, HI 96821. A non-refundable filing fee of $100 is required, excepting military, federal, state, and local government agencies.

1. NAME OF APPLICANT

Department of Public Works

2. REQUESTED BENEFICIAL USE OF WATER:
☐ Domestic ☐ Municipal ☐ Military ☐ Agricultural ☐ Industrial ☐ Other
(specify)

 Appropriately describe nature and purpose of requested use: Withdrawal of brackish/saline ground water for use as makeup water in a cooling tower.

 Proposed commencement date of water use: April, 1988

3. REQUESTED AMOUNT OF WITHDRAWAL OR SUPPLY:

Average Annual 2.26 mgd; Maximum Month 2.26 mgd; Maximum Day 2.26 mgd

 Appropriately describe schedule or times of taking requested withdrawal: 24 hours a day, 365 days a year

4. NATURE AND TERM OF REQUESTED PERMIT:
☐ Temporary ☑ Permanent

 Requested period of permit: 20 years

5. PROPOSED SOURCE OF WATER SUPPLY:
☐ Existing source ☐ Modification of existing source ☑ New source

Briefly describe existing or proposed source and any related facilities and submit map, plot plan, and plans or drawings of source of supply: Brackish/saline water well in coraline water table caprock aquifer will be the source. A backup well is also proposed. (additional application attached)

If construction work is proposed for new or modified existing source, give:
Commencement Date 11-1-85 Completion Date 5-15-86

6. ASSESSMENT OF REQUESTED WATER USE OR SUPPLY

In a separate attachment to this application, applicant must provide a written assessment addressing the desirability of issuing the requested permit, including such considerations as the availability of water, the beneficial purpose of the proposed water use, and the impact, if any, of the proposed water use on existing permitted uses, preserved uses, and individual household uses.

Signature: 

Owner of Water Source

Date:

For Official Use:

Docket No.

Board Approved Disapproved

Well No.
6. Assessment of requested water use as supply

The water to be used is brackish to saline groundwater from the coralline water table aquifer underlying the Campbell Industrial Park. The supply of this water is unlimited as the ocean will become the main source of recharge.

The proposed water use is as makeup water for the cooling tower system, an important part of the proposed Honolulu Resource Recovery Project. The project is of major importance to the people of Oahu.

Existing use of the water table aquifer in the vicinity is as a receiving body for injected effluents and as a source of brackish cooling water. There are no individual household uses. There would be no impact on existing permitted or preserved uses.
# Application for a Well Construction / Pump Installation Permit

**Instructions:** Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 10 copies and 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 887-6825. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

### Well Location Information

1. **STATE WELL NO. (If already assigned)**: 1906-09  
   2. **WELL NAME**: SW-1  
   3. **ISLAND**: Oahu  
   4. **TMK**: 006  

   The following must be attached before the application is accepted as complete:
   - Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
   - Property tax map, showing well location referenced to established property boundaries
   - Photograph of the proposed well site
   - A schematic diagram showing the well site, access road and proposed well infrastructure
   - For dug wells, attach a grading plan with cross section profiles showing existing and finish grades

5. **WELL OPERATOR’S NAME/COMPANY**: Covanta Honolulu Resource Recovery Venture  
   **Landowner’s Name/Company**: Glen Kashiwabara  
   **City and County of Honolulu**: City and County of Honolulu  
   **Landowner’s Phone**:  
   **Landowner’s Fax**:  
   **Landowner’s E-mail**:  
   **Operator’s Phone**:  
   **Operator’s Fax**:  
   **Operator’s E-mail**:  

### Proposed Well Construction

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<tr>
<td>[ ] Construct New Well</td>
<td>[ ] Drilled</td>
<td>[ ] Install New Pump</td>
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<tr>
<td>[ ] Modify Existing Well</td>
<td>[ ] Dug</td>
<td>[ ] Replace Pump</td>
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<tr>
<td>[ ] Abandon/Seal Well</td>
<td>[ ] Shaft</td>
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<td>[ ] Tunnel</td>
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9. Is this well part of a battery of wells? [ ] Yes [ ] No

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

### Proposed Pump Installation

<table>
<thead>
<tr>
<th>11. Proposed Pumping Rate, gpm (gallons per minute)</th>
<th>12. Proposed Amount of Withdrawal, gpd (gallons per day)</th>
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<tbody>
<tr>
<td>2319 gpm</td>
<td>3.34 million gallons per day (total withdrawal from 2 wells)</td>
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</tbody>
</table>

### PROPOSED USE

- [ ] 15. Municipal (water systems serving greater than 25 individuals or 15 service connections)
- [ ] 16. Domestic
  
### Other Legal Requirements

- [ ] 21. Conservation District Use Permit (CDUP)  
  - [ ] Required, CDUP #  
  - [ ] Not Required (attach documentation from OCCI)  
  - [ ] I have not checked with OCCI about whether or not a CDUP is required. I understand that checking with OCCI prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.
  - [ ] Well is not in Conservation District  
  - [ ] I have not checked if well is in or out of Conservation District. I understand that checking if the well is in a Conservation District may expedite my review. I further understand that issues raised may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

- [ ] 22. Special Management Area Permit (SMA)  
  - [ ] Required, SMA #  
  - [ ] Not Required (attach documentation from applicable County agency)  
  - [ ] I have not checked with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

- [ ] 23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources  
  - [ ] I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.  
  - [ ] I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued. Additionally, the history of past land use is attached.

**Additional remarks, explanations, etc. (attach additional sheet if more space is needed):**

- [ ] Proposed pump installation is not in an SMA area

**SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD**

### NOTE

- Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge.
- Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $500/day.

### Required Attachments

- [ ] Map of property showing property boundaries
- [ ] Coastal and floodplain mapping
- [ ] Aerial or topographic map showing the site, access road and proposed well infrastructure
- [ ] Cross section profile showing existing and finish grade
- [ ] Survey of property
- [ ] Operating or Performance Plan
- [ ] Additional remarks, explanations, etc.
- [ ] Additional documentation as requested by the Commission.
**PROPOSED WELL SECTION**

(For non-salt water Basalt Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Elevation + 4/3 Water Level Elev.)

Example: Estimated +2 ft. Water Level Elev. --- Bottom Elevation of Well Limit = \(2 + \frac{4}{3} \times 2\) = -1.85 ft.

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200  □ API Spec. 5L  □ ASTM A53  □ ASTM A139
- And compliant with (check one or more): □ ASTM A242 (or A606)  □ Type E  □ Type S  □ Grade B  □ Other
- Stainless Steel: (check one): □ ASTM A429 (production wells)  □ ASTM A512 (monitor wells)
- ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one)  □ Schedule 40  □ Schedule 80
- PVC Plastic conforming to ASTM F 490 and (ASTM D 1785 or ASTM D 2241): (check one)  □ Schedule 40  □ Schedule 80  □ Schedule 120
- Thermoset Plastic: (check one): □ Filament Wound Resin Pipe conforming to ASTM D2996
  - Centrifugally Cast Resin Pipe conforming to ASTM D2997
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  - PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - FEP Fluorocarbon Tubing conforming to ASTM D3296

**Open Casing Material:**
- Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200  □ API Spec. 5L  □ ASTM A53  □ ASTM A139
- And compliant with (check one or more): □ ASTM A242 (or A606)  □ Type E  □ Type S  □ Grade B  □ Other
- Stainless Steel: (check one): □ ASTM A429 (production wells)  □ ASTM A512 (monitor wells)
- ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one)  □ Schedule 40  □ Schedule 80
- PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one)  □ Schedule 40  □ Schedule 80  □ Schedule 120
- Thermoset Plastic: (check one): □ Filament Wound Resin Pipe conforming to ASTM D2996
  - Centrifugally Cast Resin Pipe conforming to ASTM D2997
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  - PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - FEP Fluorocarbon Tubing conforming to ASTM D3296

**HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS**

To ensure that your as-built is in compliance with applicable standards.

**For additional information, please refer to the:**

- API Spec. 5L
- AWWA C950
- AWWA D441

**WCPI Application Form 02/26/2007**
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION
☐ Fill in the most recent application form.
☐ Fill every line in (both sides of application).
☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.
☐ Mark the proposed well location on: the appropriate USGS quad map, the TMK map, the photo and schematic, and attach to the application.
☐ For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.
☐ Attach the original and 10 copies of the application form, maps, photo and schematic.
☐ Attach letters from OCCL and appropriate county agencies regarding items 21 to 23.
☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

DESCRIPTIONS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION
1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. ISLAND The island name that the well is located on.
4. TMK Tax Map Key number
5. Well operator’s information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumpage when the construction is completed.
6. Landowner’s information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION
7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. Construction type The construction type can be drilled, dug, shaft, or tunnel.

BATTERY
9. Battery Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes function as a single source.

METHODOLOGY
10. Proposed work The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission of a Well Completion Report Part II.
11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed (the proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. Method of flow measurement This is the proposed method the operator will be using to measure pumpage for reporting purposes.

PROPOSED SURVEYOR
14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it is necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write “deferred” in this space.

PROPOSED USE
15. Municipal Use is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term "domestic use".
16. Domestic Use is any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.
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18. Irrigation Use is for golf courses, agriculture, etc.
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20. Other Use not described in items 15 through 19. Please add a description.

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SIGNATURES
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25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.
# COMMISSION ON WATER RESOURCE MANAGEMENT
## WELL CONSTRUCTION/PUMP INSTALLATION PERMIT PROCESS WORKSHEET

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<td>Construction of well: Note: a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work. b) If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e. go back to step 1 above).</td>
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<td>Abandonment (initiated in Step 2 of process).</td>
<td>Landowner</td>
<td>Until well sealed.</td>
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**NOTES:**
- For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
  a) Have the 90-day deadline for approval waived (at your request); or
  b) Be denied and you can seek recourse at a Commission hearing.
- If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).
- If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
**STATE OF HAWAII**
**DEPARTMENT OF LAND AND NATURAL RESOURCES**
**COMMISSION ON WATER RESOURCE MANAGEMENT**

**APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT**

**For Official Use Only:**

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**WELL LOCATION INFORMATION**

1. **STATE WELL NO.** (If already assigned) 1890-10  
2. **WELL NAME** SW-2  
3. **ISLAND** Oahu  
4. **TMK**  
   - **x** 9  
   - **y** 1  
   - **z** 026  
   - **w** 030

The following must be attached before this application is accepted as complete:

- Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For dug wells, attach a grading plan with cross section profiles showing existing and finish grades

5. **WELL OPERATOR’S NAME/COMPANY** Covanta Honolulu Resource Recovery Venture  
6. **Landowner’s Name/Company**  
   - **City and County of Honolulu**  
   - **Landowner’s Contact** Stephen Langham

**PROPOSED WELL CONSTRUCTION**

7. **Proposed Work**
   - Construct New Well
   - Modify Existing Well
   - Abandon/Seal Well
   - Drilled
   - Dug
   - Shaft
   - Tunnel

8. **Construction Type**
   - Drill
   - Install New Pump
   - Replace Pump

9. **Is this well part of a battery of wells?**
   - Yes
   - No

**PROPOSED PUMP INSTALLATION**

10. **Proposed Pumping Rate, gpm**
    - Install New Pump
    - Replace Pump

11. **Proposed Pumping Rate, gpm**
    - Install New Pump
    - Replace Pump

12. **Proposed Amount of Withdrawal, gpd (gallons/day)**
    - 3.34 million gallons per day (total withdrawal from 2 wells)

13. **Method of flow measurement**
    - Flowmeter
    - Other (explain)

14. **Proposed Surveyor name and license number**

**PROPOSED USE**

15. **Municipal** (water systems serving greater than 25 individuals or 15 service connections)
16. **Domestic** Number of units to be served: ____________
17. **Industrial** (describe) Supply Well Pump for Energy from Waste Facility - Increase Flow Rate for Expansion of a 3rd Boiler. Cooling/Boiler
18. **Irrigation** (describe crop and no. of acres)
19. **Military** (describe)
20. **Other** (describe)

**OTHER LEGAL REQUIREMENTS**

If required, items 21. and 22. must be obtained before the Commission can legally issue a permit:

21. **Conservation District Use Permit (CDUP)**
    - Well is in Conservation District
    - Required, CDUP date approved
    - Not Required (attach documentation from OCCL)
    - I have not checked with OCCL about whether or not a CDUP is required. I understand that checking with OCCL prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

22. **Special Management Area Permit (SMA)**
    - Required, SMA date approved
    - Not Required (attach documentation from applicable County agency)
    - I have not consulted with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

23. **State Historic Preservation Division (SHPD)** of the Department of Land and Natural Resources
    - I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
    - I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

Additional remarks, explanations, etc. (attach additional sheet if more space is needed) Proposed pump installation is not in an SMA area

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

**NOTE:** Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date. 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work. 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $5000/day

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**25. PUMP INSTALLER** (Must be filled out if application is for Pump Installation)  
Will be provided at the time the Contractor is Selected

**Signature**
**Date**
PROPOSED WELL SECTION

Please attach schematic if different from diagram provided below.

Elevation at top of casing: 12 ft., msl*

Bottom Elevation of Well limit

Minimum of 2 ft Radius & 4 ft Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)

Ground Elevation: -12.93 ft., msl*

Solid Casing: (.95% x (Ground Elev - Water Level Elev))
Total Length: 50 ft.
Nominal Diameter: 18 in.
Wall Thickness: varies in.
Bottom Elevation: -38 ft., msl*

Open Casing: [Perforated] [Screen]
Total Length: 50 ft.
Nominal Diameter: 18 in.
Wall Thickness: varies in.
Bottom Elevation: -88 ft., msl*

Note: Neither bentonite nor mud should be used in saturated zone during drilling.

Open Hole:
Length: 5 ft.
Diameter: 24 in.
Bottom Elevation: -93 ft., msl*

* The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Elevation - .5 x Water Level Elev) / 4
Example: Estimated + 2 ft. Water Level Elev. Bottom Elevation of Well Limit = (2 - .5 x 2) / 4 = -1.5 ft.

Solid Casing Material:
Carbon Steel: compliant with (check one or more): [ANSI/AWWA C200] [API Spec. 5L] [ASTM A53] [ASTM A139]
And compliant with (check one or more): [ASTM A242 (or A606)] [Type E] [Type S] [Grade B] [Other]
Stainless Steel: (check one): [ASTM A409 (production wells)] [ASTM A312 (monitor wells)]
ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one): [Schedule 40] [Schedule 80]
PVC Plastic conforming to ASTM F480 and (ASTM D1706 or ASTM D224) (check one): [Schedule 40] [Schedule 80] [Schedule 120]
Thermoset Plastic: (check one): [Filament Wound Resin Pipe conforming to ASTM D2996] [Centrifugally Cast Resin Pipe conforming to ASTM D2997]
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WCPI Application Form 02/26/2007
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION
☐ Fill in the most recent application form. (check www.hawaii.gov/divcrwm or call 587-0225 for updates)
☐ Fill any line in (both sides of application).
☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.
☐ Mark the proposed well location on: the appropriate USGS quad map, the TMK map, the photo and the schematic, and attach to the application.
☐ For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.
☐ Attach the original and 10 copies of the application form, maps, photo and schematic.
☐ Attach letters from OCCL and appropriate county agencies regarding items 21 to 23.
☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

DESCRIPTIONS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION
1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. ISLAND The island that the well is located on.
4. TMK Tax Map Key number
5. Well operator’s information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumpage when the construction is completed.
6. Landowner’s information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION
7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. Construction type The construction type can be drilled, dug, shaft, or tunnel.
9. Battery Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes functions as a single source.

PROPOSED PUMP INSTALLATION
10. Proposed work The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission of a Well Completion Report Part II.
11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed (the proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. Method of flow measurement This is the method proposed the operator will be using to measure pumpage for reporting purposes.

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</tbody>
</table>

### NOTES:
A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.
B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).
C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
Site Map

H-Power Application for Pump Installation Permit.

Legend

△ Well Location

■ Site Boundary

TMK Boundaries

FIGURE 1
Site Photographs of the Sources and Locations of Proposed End Uses

H-Power Application for Pump Installation Permit.
March 4, 2009

Mr. S. Samuel Joshi, PE, QEP
Manager, Environmental Engineering
Covanta Honolulu Resource Recovery Venture
c/o Covanta Energy Corporation

Dear Mr. Joshi:

Subject: Draft Environmental Impact Statement
H-Power Third Boiler Expansion Project
91-174 Hanua Street – Campbell Industrial Park
Tax Map Key 9-1-26: 30

This is in response to your request, received January 30, 2009, for comments concerning the Draft Environmental Impact Statement (DEIS) for the subject project.

The project site, as well as the adjoining parcels to be used for construction lay-down (Tax Map Key 9-1-26: 33 and 34), are not located in the Special Management Area (SMA) or the shoreline setback, and will not require an SMA permit or shoreline setback variance.

Please note that the project does not require a modification to Conditional Use Permit (CUP) No. 89/CUP1-17, as stated in Section 3.0, "Required Approvals and Permits," of the DEIS. Since the H-Power facility is now owned and operated by the City, it is thus considered to be a "public use and structure" for purposes of the Land Use Ordinance (LUO); and, as such is a permitted use in all zoning districts. When the CUP had originally been issued, the use was then classified as a "utility installation, Type B," since at that time it had been privately owned and operated.

The project will need to obtain an approved zoning waiver, pursuant to LUO Section 21-2.130(a)(1), for any portion of the project which will exceed the maximum 60-foot zoning height for the site.
Thank you for the opportunity to comment on the DEIS. Please contact Blake La Benz of our staff at [redacted] for any questions.

Very truly yours,

David K. Tanoue, Director
Department of Planning and Permitting

DKT:fm
cc: Department of Environmental Services
    Office of Environmental Quality Control
    AMEC Earth & Environmental, Inc.
March 16, 2009

Dear Mr. Joshi:

SUBJECT: 6E-8 Historic Preservation Review—
DRAFT Environmental Impact Statement (DEIS)—
H-POWER Expansion Project,
Hono‘ulu‘ulu Ahupua‘a, ‘Ewa District, O‘ahu, Hawai‘i
TMK: (1) 9-026-030, 033, 034

Thank you for the opportunity to review this DRAFT Environmental Impact Statement, which we received via CD on January 28, 2009.

The H-POWER site is located in the Campbell Industrial Park at Kala‘eola [formerly called Barbers Point or Barber’s Point]. The H-POWER facility, which began operation in May 1990, is operated by Covanta Honolulu Resource Recovery Venture (CHRRV) on behalf of the City and County of Honolulu.

This project will entail the expansion of the current H-POWER facility onto parcels 33 and 34 adjacent to the current facility. They are currently vacant. A garden for endemic plants and the site for the reburial of a single human burial previously discovered when the initial facility was built in the 1980’s area present on the site. Because of the possibility that sinkholes prevalent in this portion of ‘Ewa could contain historic properties, an archaeological and cultural impact assessment study in support of the proposed expansion on 24.635 acres of industrially zoned land was undertaken to determine the presence or absence of historic properties [ARCHAEOLOGICAL AND CULTURAL IMPACT ASSESSMENTS FOR THE PROPOSED H-POWER EXPANSION PROJECT, HONO‘ULU‘ULU AHUPUA‘A, ‘EWA DISTRICT, ISLAND OF O‘AHU, TMK: (1) 9-1-026:30, 33, AND 34[McCoy and Clark, September 2008].

There is evidence that large portions of Parcels 33 and 34 have been grubbed and graded. Clearing may have occurred on more than one occasion. Aerial photographs suggest that the land clearing project undertaken by Campbell Estate in the early 1960s on Parcel 30 and documented during the archaeological reconnaissance survey in 1983 also included Parcels 33 and 34.

No historic properties were recorded during this archaeological assessment; however, it is recommended that precautionary monitoring be performed during any ground disturbing activities. We find that there are no historic properties affected by this project.

Please call Wendy Tolleson at [contact information] if there are any questions or concerns regarding this letter.
Aloha,

Nancy A. McMahon (Deputy SHPO)
State Historic Preservation Officer

CC:

Mr. Stephen Langham
Environmental Services Refuse Division, H_POWER

ENV Director
City and County of Honolulu
Department of Environmental Services

Dr. Russell Okoji
AMEC Earth & Environmental, Inc.
### WELL LOCATION INFORMATION

1. STATE WELL NO. (if already assigned)  
2. WELL NAME  
3. ISLAND  
4. TAK

<table>
<thead>
<tr>
<th>Zone</th>
<th>Sec</th>
<th>Tlf</th>
<th>Frt</th>
</tr>
</thead>
<tbody>
<tr>
<td>1006-09</td>
<td>9</td>
<td>1</td>
<td>026</td>
</tr>
</tbody>
</table>

### PROPOSED WELL CONSTRUCTION

7. Proposed Work
- Construct New Well
- Modify Existing Well
- Abandon/Seal Well

8. Construction Type
- Dilled
- Dug
- Shaft
- Tunnel

### PROPOSED PUMP INSTALLATION

11. Proposed Pumping Rate, gpm  
- (gallons per minute)  
- 2319 gpm

12. Proposed Amount of Withdrawal, gpd (gallons per day)  
- 3.34 million gallons per day (total withdrawal from 2 wells)

### PROPOSED USE

- 15. Municipal (water systems serving greater than 25 individuals or 15 service connections)
- 16. Domestic

### OTHER LEGAL REQUIREMENTS

If required, Items 21. and 22. must be obtained before the Commission can legally issue a permit:

- 21. Conservation District Use Permit (CDUP)  
  - Well is in Conservation District  
  - Required, CDUP #  
  - Not Required (attach documentation from OCCL)

- 22. Special Management Area Permit (SMA)  
  - Required, SMA #  
  - Not Required (attach documentation from applicable County agency)

- 23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources  
  - I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.

### SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

### Notes:

- Signing below indicates that the signatories understand and agree that the information provided is accurate and true to the best of their knowledge.
- Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $500/day.

### Licensee Information

- **Licensee business name**: C-57 License No.
  - License No.
  - Date

- **Signature**: 
  - Print
  - Date

- **Licensee business name**: C-57/C-57a License No.
  - License No.
  - Date

- **Signature**: 
  - Print
  - Date
Solid Casing Material:
Carbon: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
And compliant with (check one or more): □ ASTM A424 (or A606) □ Type E □ Type S □ Grade B □ Other
Stainless Steel: (check one): □ ASTM A409 (production wells) □ ASTM A312 (monitor wells)
ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one): □ Schedule 40 □ Schedule 80
PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one): □ Schedule 40 □ Schedule 80 □ Schedule 120
Thermoset Plastic: (check one):
□ Filament Wound Resin Pipe conforming to ASTM D2996
□ Centrifugally Cast Resin Pipe conforming to ASTM D2997
□ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
□ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
□ PTFE Fluorocarbon Tubing conforming to ASTM D3296
□ FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material:
Carbon: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
And compliant with (check one or more): □ ASTM A424 (or A606) □ Type E □ Type S □ Grade B □ Other
Stainless Steel: (check one): □ ASTM A409 (production wells) □ ASTM A312 (monitor wells)
ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one): □ Schedule 40 □ Schedule 80
PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one): □ Schedule 40 □ Schedule 80 □ Schedule 120
Thermoset Plastic: (check one):
□ Filament Wound Resin Pipe conforming to ASTM D2996
□ Centrifugally Cast Resin Pipe conforming to ASTM D2997
□ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
□ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
□ PTFE Fluorocarbon Tubing conforming to ASTM D3296
□ FEP Fluorocarbon Tubing conforming to ASTM D3296

PROPOSED WELL SECTION

Elevation at top of casing: 12 ft., msl*
Minimum of 2' Radius & 4' Thick Concrete Pad (to contain benchmark, surveyed to nearest 0.01 ft.)
Ground Elevation: 10.17 ft., msl*

Solid Casing: (> 90% x (Ground Elev.-Water Level Elev))
Total Length: ______ ft.
Nominal Diameter: ______ in.
Wall Thickness: ______ in.
Bottom Elevation: ______ ft., msl*

Open Casing: □ Perforated □ Screen
Total Length: ______ ft.
Nominal Diameter: ______ in.
Wall Thickness: ______ in.
Bottom Elevation: ______ ft., msl*

Note: Neither bentonite nor mud should be used in saturated zone during drilling.

Solid PVC, Class 100, SDR 41, ASTM D-2441

Perforation: 0.08 sq. ft./ft.

WCPI Application Form 02/26/2007
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION
☐ Fill in the most recent application form.
☐ Fill every line in (both sides of application).
☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.
☐ Mark the proposed well location on: the appropriate USGS quad map, the TMK map, the photo and the schematic, and attach to the application.
☐ For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.
☐ Attach the original and 10 copies of the application form, maps, photo and schematic.
☐ Attach letters from OCCL and appropriate county agencies regarding items 21 to 23.
☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management

DESCRIPTIONS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION
1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. ISLAND The island name that the well is located on.
4. TMK Tax Map Key number
5. Well operator’s information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumpage when the construction is completed.
6. Landowner’s Information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION
7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. Construction type The construction type can be drilled, dug, shaft, or tunnel.
9. Battery Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes functions as a single source.

PROPOSED PUMP INSTALLATION
10. Proposed work The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission of a Well Installation Permit Application.
11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed (the proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. Method of flow measurement This is the proposed method the operator will be using to measure pumpage for reporting purposes.

PROPOSED SURVEYOR
14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write “deferred” in this space.

PROPOSED USE
15. Municipal Use is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term “domestic use”.
16. Domestic Use is any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.
17. Industrial Use is for uses such as cooling or processing water, etc.
18. Irrigation Use is for golf courses, agriculture, etc.
19. Military Use is water used by the military from military operated water supply systems.
20. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS
21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (http://www.hawaii.gov/dbedtlgis/maps/land.jsp or call 587-2833). If the well is not in a CD, then you may check not in a CD box. If the well site is in a CD you will need to filled if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCL) at 587-0225.
22. Special Management Area Permit (SMA) To determine if an SMA is necessary, on Oahu call 527-5734; on Hawaii call 961-8288; for Maui County call 270-7235; on Kauai call 241-6677.
23. Historic Preservation review If the parcel(s) affected by construction (well location/access road/infrastructure for well) has been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHPD) or through an OEQC Environmental Review, if Special Management Area Permit, etc., check “yes” and attach any relevant documentation from SHPD. If the affected parcel(s) has not undergone SHPD review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Note: You are strongly advised to contact the SHPD to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHPD’s concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHPD, please call 692-8015.

SIGNATURES
24. Well Driller This section must be filled out completely for the Well Construction Permit application to be accepted as complete.
25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.
<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Responsible Party</th>
<th>Legal Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ensure that if items 21 to 23 of the application are required, that they are obtained prior to applying for a permit. Otherwise, post-application comments obtained from these agencies may delay processing of your application.</td>
<td>Applicant</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Application for Well Construction (or modification) and/or Pump Installation (or replacement with larger capacity than existing pump - see note B below).</td>
<td>Licensed Well Driller (for Well Construction) and/or Licensed Pump Contractor (for Pump Installation) (See note C below)</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Issuance of Well Construction Permit to Well Driller (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies’ legal requirements. (See note A below)</td>
</tr>
<tr>
<td>4</td>
<td>Issuance of Pump Installation Permit to Pump Installer (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies’ legal requirements. (See note A below)</td>
</tr>
<tr>
<td>5</td>
<td>Execute/Sign Permit.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Before work activity begins.</td>
</tr>
<tr>
<td>6</td>
<td>Start of Work Notice.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>2 weeks prior to beginning of work activity.</td>
</tr>
<tr>
<td>7</td>
<td>Post copy of permit at the work site.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>During entire period of work activity at the site.</td>
</tr>
<tr>
<td>8</td>
<td>Construction of well. Note:</td>
<td>Licensed Well Driller</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td></td>
<td>a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e., go back to step 1 above).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Installation of a temporary test pump that can adequately conduct a step-drawdown test (if proposed pump &gt; 70 gpm).</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>10</td>
<td>Installation of permanent pump.</td>
<td>Licensed Pump Installer</td>
<td>Within 2 years of issuance of Pump Installation Permit.</td>
</tr>
<tr>
<td>11</td>
<td>Application for permit extension (if required).</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>12</td>
<td>Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM.</td>
<td>Licensed Well Driller</td>
<td>Within 60 days of completion of Well Construction (the date that ALL aspects of Well Completion Report Part I can be filled in).</td>
</tr>
<tr>
<td>13</td>
<td>Well Completion Report Part II to be returned to CWRM.</td>
<td>Licensed Pump Installer</td>
<td>Within 60 days of completion of Pump Installation (the date that ALL aspects of Well Completion Report Part II can be filled in).</td>
</tr>
<tr>
<td>14</td>
<td>Acceptance of Well Completion Report Part I, Elevation Survey.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>15</td>
<td>Issuance of Certificate of Well Construction Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance of Well Completion Report Part II.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>17</td>
<td>Issuance of Certificate of Pump Installation Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>18</td>
<td>Pumpage may commence, Water Use Reporting required.</td>
<td>Well Operator</td>
<td>Monthly recording.</td>
</tr>
<tr>
<td>19</td>
<td>Abandonment (initiated in Step 2 of process)</td>
<td>Landowner</td>
<td>Until well sealed</td>
</tr>
</tbody>
</table>

**NOTES:**
A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.
B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).
C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
## WELL LOCATION INFORMATION

1. STATE WELL NO. (if already assigned)  
2. WELL NAME  
   1906-10  
3. ISLAND  
   Oahu  
4. TMK  
   9 + 1 026 : 030

The following must be attached before this application is accepted as complete:
- Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For dug wells, attach a grading plan with cross section profiles showing existing and finish grades.

## PROPOSED WELL CONSTRUCTION

<table>
<thead>
<tr>
<th>Proposed Work</th>
<th>Construction Type</th>
<th>Proposed Pump Installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct New Well</td>
<td>Drilled</td>
<td>Install New Pump</td>
</tr>
<tr>
<td>Modify Existing Well</td>
<td>Dug</td>
<td>Replace Pump</td>
</tr>
<tr>
<td>Abandon/Seal Well</td>
<td>Shaft</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tunnel</td>
<td></td>
</tr>
</tbody>
</table>

9. Is this well part of a battery of wells?  
   □ Yes  
   □ No

## PROPOSED PUMP INSTALLATION

<table>
<thead>
<tr>
<th>Proposed Work</th>
<th>Construction Type</th>
<th>Proposed Pump Installation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Install New Pump</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Replace Pump</td>
</tr>
</tbody>
</table>

## OTHER LEGAL REQUIREMENTS

If required, items 21 and 22 must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)  
   □ Yes  
   □ No

22. Special Management Area Permit (SMAP)  
   □ Yes  
   □ No

## STATE HISTORIC PRESERVATION DIVISION (SHPD)

I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.

I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

Additional remarks, explanations, etc. (attach additional sheet if more space is needed) Proposed pump installation is not in an SMA area

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

## LICENSEE BUSINESS INFORMATION

<table>
<thead>
<tr>
<th>Licensee business name</th>
<th>C-57 License No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Signature</th>
<th>Print</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## FOR OFFICIAL USE ONLY:

WCP Application Form 02/26/2007
**PROPOSED WELL SECTION**

*Please attach schematic if different from diagram provided below*

- **Elevation at top of casing:** 12 ft., msl*
- **Minimum of 2' Radius & 4' Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)**
- **Ground Elevation:** 12.83 ft., msl*

**Grouting method:**
- Positive displacement
- Other

**Annular space between hole and casing:** 3 in.

**Total Depth:** 150 ft.

**Rock or Gravel Packing:**
- Crushed Basalt
- Rounded Gravel

**Estimated Water Level:**
- ft., msl*

**Solid Casing Material:**
- PVC Plastic
- Steel: compliant
- Centrifugally Cast Resin Pipe conforming to ASTM D2996
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FE Fluorocarbon Tubing conforming to ASTM D3296

**Open Casing:**
- Perforated
- Screen

**Open Hole:**
- Length: 5 ft.
- Diameter: 24 in.
- Bottom Elevation: -93 ft., msl*

**Solid Casing (to 90% x (Ground Elev.-Water Level Elev.))**
- Total Length: 50 ft.
- Nominal Diameter: 18 in.
- Wall Thickness: varies in in.
- Bottom Elevation: -38 ft., msl*

**Open Casing:**
- Perforated
- Screen

**Open Hole:**
- Length: 5 ft.
- Diameter: 24 in.
- Bottom Elevation: -93 ft., msl*

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
- Stainless Steel: (check one):
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80
- PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one)
  - Schedule 40
  - Schedule 80
  - Schedule 120
- Thermoset Plastic: (check one)
  - Filament Wound Resin Pipe conforming to ASTM D2996
  - Centrifugally Cast Resin Pipe conforming to ASTM D2997
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  - PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - FE Fluorocarbon Tubing conforming to ASTM D3296

**Open Casing Material:**
- Carbon Steel: compliant with (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
- Stainless Steel: (check one):
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80
- PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one)
  - Schedule 40
  - Schedule 80
  - Schedule 120
- Thermoset Plastic: (check one)
  - Filament Wound Resin Pipe conforming to ASTM D2996
  - Centrifugally Cast Resin Pipe conforming to ASTM D2997
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  - PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - FE Fluorocarbon Tubing conforming to ASTM D3296

**Note:**
- The approximate elevation must be referenced to mean sea level (msl) at the time of application filing.
- Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or,

Bottom Elevation of Well Limit = \( \text{Water Elevation} - \left( \frac{4}{5} \times \text{Aquifer Thickness} \right) \)

Example: Estimated = 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = \( 2 - \frac{4}{5} \times \text{Aquifer Thickness} \) = -18.5 ft.

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
- And compliant with (check one or more):
  - ASTM A242 (or A606)
  - Type E
  - Type S
  - Grade B
  - Other
- Stainless Steel: (check one):
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)
  - Schedule 40
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  - FE Fluorocarbon Tubing conforming to ASTM D3296

**Open Casing Material:**
- Carbon Steel: compliant with (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
- And compliant with (check one or more):
  - ASTM A242 (or A606)
  - Type E
  - Type S
  - Grade B
  - Other
- Stainless Steel: (check one):
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80
- PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one)
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  - Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  - PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - FE Fluorocarbon Tubing conforming to ASTM D3296

**Note:**
- Neither bentonite nor mud should be used in saturated zone during drilling.
- Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to ensure that your as-built is in compliance with applicable standards.
**INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM**

**CHECKLIST FOR A COMPLETE APPLICATION**
- Fill in the most recent application form.
  (check www.hawaii.gov/dlnr/cwrm or call 587-0225 for updates)
- Fill every line in (both sides of application).
- Enclose a check for $25 payable to the Department of Land and Natural Resources.
- Mark the proposed well location on: the appropriate USGS quad map, the TMK map, the photo and the schematic, and attach to the application.
- For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.
- Attach the original and 10 copies of the application form, maps, photo and schematic.
- Attach letters from OCCL and appropriate county agencies regarding items 21 to 23.
- Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI  96809

**DESCRIPTIONS FOR LINES ON APPLICATION**

**WELL LOCATION INFORMATION**
1. **STATE WELL NO.** If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. **WELL NAME** Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. **ISLAND** The island name that the well is located on.
4. **TMK Tax Map Key number**
5. **Well operator’s information** Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumpage when the construction is completed.
6. **Landowner’s information** Fill in the information for the landowner of the property where the well is located.

**PROPOSED WELL CONSTRUCTION**
7. **Proposed work** The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. **Construction type** The construction type can be drilled, dug, shaft, or tunnel.
9. **Battery** Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes functions as a single source.

**PROPOSED PUMP INSTALLATION**
10. **Proposed work** The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission in a CD box. Well Completion Report Part II.
11. **Proposed pumping rate** The proposed pumping rate of the pump in gallons per minute.
12. **Proposed amount of withdrawal** The proposed amount of withdrawal in gallons per day, not to exceed (the proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. **Method of flow measurement** This is the proposed method the operator will be using to measure pumpage for reporting purposes.

**PROPOSED SURVEYOR**
14. **Proposed surveyor name and license number** A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it is necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write “deferred” in this space.

**PROPOSED USE**
15. **Municipal Use** is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term “domestic use”.
16. **Domestic Use** is any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.
17. **Industrial Use** is for uses such as cooling or processing water, etc.
18. **Irrigation Use** is for golf courses, agriculture, etc.
19. **Military Use** is water used by the military from military operated water supply systems.
20. **Other Use** Not described in items 15 through 19. Please add a description.

**OTHER LEGAL REQUIREMENTS**
21. **Conservation District Use Permit (CDUP)** To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (http://www.hawaii.gov/dbedt/gis/maps/land_layers.php or call 587-2823). If the well is not in a CD, then you may check not in a CD box. If the well site is in a CD you will need to then determine if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCCL) of DLNR at 587-0377.
22. **Special Management Area Permit (SMAP)** To determine if an SMAP is necessary, on Oahu call 527-5734; on Hawaii call 961-8288; for Maui County call 270-7235; on Kauai call 241-6677
23. **Historic Preservation review** If the parcel(s) affected by construction (well location/access road/infrastructure for well) has been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHPD or through an OEOC Environmental Review, Special Management Area Permit, etc.,) check “yes” and attach any relevant documentation from SHPD. If the affected parcel(s) has not undergone SHPD review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Please note: You are strongly advised to contact the SHPD to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHPD’s concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHPD, please call 692-8015.

**SIGNATURES**
24. **Well Driller** This section must be filled out completely for the Well Construction Permit application to be accepted as complete.
25. **Pump Installer** This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.
### COMMISSION ON WATER RESOURCE MANAGEMENT
### WELL CONSTRUCTION/PUMP INSTALLATION
### PERMIT PROCESS WORKSHEET

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Responsible Party</th>
<th>Legal Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ensure that if items 21 to 23 of the application are required, that they are obtained prior to applying for a permit. Otherwise, post-application comments obtained from these agencies may delay processing of your application.</td>
<td>Applicant</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Application for Well Construction (or modification) and/or Pump Installation (or replacement with larger capacity than existing pump - see note B below).</td>
<td>Licensed Well Driller (for Well Construction) and/or Licensed Pump Contractor (for Pump installation) (See note C below)</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Issuance of Well Construction Permit to Well Driller (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies’ legal requirements. (See note A below)</td>
</tr>
<tr>
<td>4</td>
<td>Issuance of Pump Installation Permit to Pump Installer (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies’ legal requirements. (See note A below)</td>
</tr>
<tr>
<td>5</td>
<td>Executor/Sign Permit.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Before work activity begins.</td>
</tr>
<tr>
<td>6</td>
<td>Start of Work Notice.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>2 weeks prior to beginning of work activity.</td>
</tr>
<tr>
<td>7</td>
<td>Post copy of permit at the work site.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>During entire period of work activity at the site.</td>
</tr>
<tr>
<td>8</td>
<td>Construction of well.</td>
<td>Licensed Well Driller</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e. go back to step 1 above).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Installation of a temporary test pump that can adequately conduct a step-drawdown test (if proposed pump&gt;70 gpm).</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>10</td>
<td>Installation of permanent pump.</td>
<td>Licensed Pump Installer</td>
<td>Within 2 years of issuance of Pump Installation Permit.</td>
</tr>
<tr>
<td>11</td>
<td>Application for permit extension (if required).</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>12</td>
<td>Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM.</td>
<td>Licensed Well Driller</td>
<td>Within 60 days of completion of Well Construction Permit (the date that ALL aspects of Well Completion Report Part I can be filled in).</td>
</tr>
<tr>
<td>13</td>
<td>Well Completion Report Part II to be returned to CWRM.</td>
<td>Licensed Pump Installer</td>
<td>Within 60 days of completion of Pump Installation Permit (the date that ALL aspects of Well Completion Report Part II can be filled in).</td>
</tr>
<tr>
<td>14</td>
<td>Acceptance of Well Completion Report Part I, Elevation Survey.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>15</td>
<td>Issuance of Certificate of Well Construction Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance of Well Completion Report Part II.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>17</td>
<td>Issuance of Certificate of Pump Installation Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>18</td>
<td>Pumpage may commence, Water Use Reporting required.</td>
<td>Well Operator</td>
<td>Monthly recording.</td>
</tr>
<tr>
<td>19</td>
<td>Abandonment (initiated in Step 2 of process).</td>
<td>Landowner</td>
<td>Until well sealed.</td>
</tr>
</tbody>
</table>

**NOTES:**

A. For non-compliance of other agencies’ legal requirements that preclude the Commission from issuing a permit, your application may:

a) Have the 90-day deadline for approval waived (at your request); or
b) Be denied and you can seek recourse at a Commission hearing.

B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).

C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
Site Map
H-Power Application for Pump Installation Permit.
FIGURE 2

TMK Map
H-Power Application for Pump Installation Permit.
Site Photographs of the Sources and Locations of Proposed End Uses
H-Power Application for Pump Installation Permit.
March 4, 2009

Mr. S. Samuel Joshi, PE, QEP
Manager, Environmental Engineering
Covanta Honolulu Resource Recovery Venture
c/o Covanta Energy Corporation

Dear Mr. Joshi:

Subject: Draft Environmental Impact Statement
H-Power Third Boiler Expansion Project
91-174 Hanua Street – Campbell Industrial Park
Tax Map Key 9-1-26: 30

This is in response to your request, received January 30, 2009, for comments concerning the Draft Environmental Impact Statement (DEIS) for the subject project.

The project site, as well as the adjoining parcels to be used for construction lay-down (Tax Map Key 9-1-26: 33 and 34), are not located in the Special Management Area (SMA) or the shoreline setback, and will not require an SMA permit or shoreline setback variance.

Please note that the project does not require a modification to Conditional Use Permit (CUP) No. 89/CUP1-17, as stated in Section 3.0, "Required Approvals and Permits," of the DEIS. Since the H-Power facility is now owned and operated by the City, it is thus considered to be a "public use and structure" for purposes of the Land Use Ordinance (LUO); and, as such is a permitted use in all zoning districts. When the CUP had originally been issued, the use was then classified as a "utility installation, Type B," since at that time it had been privately owned and operated.

The project will need to obtain an approved zoning waiver, pursuant to LUO Section 21-2.130(a)(1), for any portion of the project which will exceed the maximum 60-foot zoning height for the site.
Thank you for the opportunity to comment on the DEIS. Please contact Blake La Benz of our staff at [redacted] for any questions.

Very truly yours,

David K. Tanoue, Director
Department of Planning and Permitting

DKT:fm
cc: Department of Environmental Services
Office of Environmental Quality Control
AMEC Earth & Environmental, Inc.

G:\LandUse\PosseWorkingDirectory\blake\Correspondence\09ELOG-234.doc
March 16, 2009

Mr. S. Samuel Joshi
Covanta Energy Corporation

Dear Mr. Joshi:

SUBJECT: 6E-8 Historic Preservation Review—
DRAFT Environmental Impact Statement (DEIS)—
H-POWER Expansion Project,
Hono‘u‘u‘u Ahupua‘a, ‘Ewa District, O‘ahu, Hawai‘i
TMK: (1) 9-026-030, 033, 034

Thank you for the opportunity to review this DRAFT Environmental Impact Statement, which we received via CD on January 28, 2009.

The H-POWER site is located in the Campbell Industrial Park at Kalaeloa [formerly called Barbers Point or Barber’s Point]. The H-POWER facility, which began operation in May 1990, is operated by Covanta Honolulu Resource Recovery Venture (CHRRV) on behalf of the City and County of Honolulu.

This project will entail the expansion of the current H-POWER facility onto parcels 33 and 34 adjacent to the current facility. They are currently vacant. A garden for endemic plants and the site for the reburial of a single human burial previously discovered when the initial facility was built in the 1980’s area present on the site. Because of the possibility that sinkholes prevalent in this portion of ‘Ewa could contain historic properties, an archaeological and cultural impact assessment study in support of the proposed expansion on 24.635 acres of industrially zoned land was undertaken to determine the presence or absence of historic properties (ARCHAEOLOGICAL AND CULTURAL IMPACT ASSESSMENTS FOR THE PROPOSED H-POWER EXPANSION PROJECT, HONO‘U‘U‘U AHUPUA‘A, ‘EWA DISTRICT, ISLAND OF O‘AHU, TMK: (1) 9-1-026:30, 33, AND 34 [McCoy and Clark, September 2008]).

There is evidence that large portions of Parcels 33 and 34 have been grubbed and graded. Clearing may have occurred on more than one occasion. Aerial photographs suggest that the land clearing project undertaken by Campbell Estate in the early 1960s on Parcel 30 and documented during the archaeological reconnaissance survey in 1983 also included Parcels 33 and 34.

No historic properties were recorded during this archaeological assessment; however, it is recommended that precautionary monitoring be performed during any ground disturbing activities. We find that there are no historic properties affected by this project.

Please call Wendy Tolleson at [REDACTED] if there are any questions or concerns regarding this letter.
Aloha,

Nancy A. McMahon (Deputy SHPO)
State Historic Preservation Officer

CC:

Mr. Stephen Langham
Environmental Services Refuse Division, H_POWER

ENV Director
City and County of Honolulu
Department of Environmental Services

Dr. Russell Okoji
AMEC Earth & Environmental, Inc.
### WELL LOCATION INFORMATION

<table>
<thead>
<tr>
<th>1. STATE WELL NO. (if already assigned)</th>
<th>2. WELL NAME</th>
<th>3. ISLAND</th>
<th>4. TMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1805-09</td>
<td>SW:1</td>
<td>Oahu</td>
<td>9</td>
</tr>
</tbody>
</table>

The following must be attached before this application is accepted as complete:

- Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For dug wells, attach a grading plan with cross section profiles showing existing and final grades

### PROPOSED WELL CONSTRUCTION

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct New Well</td>
<td>Drilled</td>
<td>Install New Pump</td>
</tr>
<tr>
<td>Modify Existing Well</td>
<td>Dug</td>
<td>Replace Pump</td>
</tr>
<tr>
<td>Abandon/Seal Well</td>
<td>Shaft</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tunnel</td>
<td></td>
</tr>
</tbody>
</table>

9. Is this well part of a battery of wells? ☐ Yes ☐ No

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

### PROPOSED PUMP INSTALLATION

<table>
<thead>
<tr>
<th>11. Proposed Pumping Rate, gpm (gallons per minute)</th>
<th>13. Method of flow measurement (gpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2319 gpm</td>
<td>Flowmeter</td>
</tr>
</tbody>
</table>

12. Proposed Amount of Withdrawal, gpd (gallons per day) 3.34 million gallons per day (total withdrawal from 2 wells)

### OTHER LEGAL REQUIREMENTS

If required, items 21. and 22. must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)
   - Well is in Conservation District
   - Required, CDUP # date approved
   - Not Required (attach documentation from OCLL)
   - I have not checked with OCLL, about whether or not a CDUP is required. I understand that checking with OCLL prior to making this application will expedite your review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

22. Special Management Area Permit (SMA)
   - Required, SMA # date approved
   - Not Required (attach documentation from applicable County agency)
   - I have not checked with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources
   - I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
   - I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued. Additionally, the history of past land use is attached.

### Additional Remarks, Explanations, etc.

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD.
PROPOSED WELL SECTION

Minimum of 2' Radius & 4' Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)

Ground Elevation: 10.17 ft., msl*

* The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Elevation - 5 L Water Level Elev. ) / 4

Example: Estimated + 2 ft. Water Level Elev. = Bottom Elevation of Well Limit = (2 - 5 L 2 ) / 4 = -16.5 ft.

Solid Casing Material:
Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139

And compliant with (check one or more): □ ASTM A242 (or A606) □ Type E □ Type S □ Grade B □ Other

Stainless Steel: (check one): □ ASTM A409 (production wells) □ ASTM A312 (monitor wells)

ABS Plastic conforming to ASTM F480 and (ASTM D1527: (check one): □ Schedule 40 □ Schedule 80

PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241: (check one): □ Schedule 40 □ Schedule 80 □ Schedule 120

Thermoset Plastic: (check one)
□ Filament Wound Resin Pipe conforming to ASTM D2996
□ Centrifugally Cast Resin Pipe conforming to ASTM D2997
□ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
□ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
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□ FEP Fluorocarbon Tubing conforming to ASTM D3298

Open Casing Material:
Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139

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□ FEP Fluorocarbon Tubing conforming to ASTM D3298

Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to ensure that your as-built is in compliance with applicable standards.

Solid Casing: (20 % x (Ground Elev.-Water Level Elev))
Total Length: 50 ft.
Nominal Diameter: 18 in.
Wall Thickness: varies in.
Bottom Elevation: -38 ft., msl*

Open Casing: □ Perforated □ Screen
Total Length: 50 ft.
Nominal Diameter: 18 in.
Wall Thickness: varies in.
Bottom Elevation: -88 ft., msl*

note: Neither bentonite nor mud should be used in saturated zone during drilling

Open Hole:
Length: 3 ft.
Diameter: 24 in.
Bottom Elevation: -91 ft., msl*

18" O.D. X .440" wall Solid PVC, Class 100, SDR 41, ASTM D-2441

Perforation .08 sq. ft./ft.
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION

☐ Fill in the most recent application form.
(see www.hawaii.gov/dlnr/cwrm or call 587-0225 for updates)

☐ Fill every line in (both sides of application).

☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.

☐ Mark the proposed well location on: the appropriate USGS quad map, the TMK map, the photo and the schematic, and attach to the application.

☐ For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.

☐ Attach the original and 10 copies of the application form, maps, photo and schematic.

☐ Attach letters from OCCL and appropriate county agencies regarding items 21 to 23.

☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

DESCRIPTIONS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION

1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.

2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.

3. ISLAND The island name that the well is located on.

4. TMK Tax Map Key number

5. Well operator's information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumpage when the construction is completed.

6. Landowner's information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION

7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.

8. Construction type The construction type can be drilled, dug, shaft, or tunnel.

9. Battery Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes functions as a single source.

PROPOSED PUMP INSTALLATION

10. Proposed work The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission of a Well Completion Report Part II.

11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.

12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed the proposed pumping rate in gallons per minute x 1440 minutes/day.

13. Method of flow measurement This is the proposed method the operator will be using to measure pumpage for reporting purposes.

PROPOSED SURVEYOR

14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it is necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write "deferred" in this space.

PROPOSED USE

15. Municipal Use is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term "domestic use".

16. Domestic Use is any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.

17. Industrial Use is for uses such as cooling or processing water, etc.

18. Irrigation Use is for golf courses, agriculture, etc.

19. Military Use is water used by the military from military operated water supply systems.

20. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS

21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (http://www.hawaii.gov/dboh/gis/maps/slud.htm or call 587-2833). If the well is not in a CD, then you may check not in a CD box. If the well site is in a CD you will need to then determine if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCL) of DLNR at 587-3777.

22. Special Management Area Permit (SMAP) To determine if a SMAP is necessary, on Oahu call 527-5374; on Hawaii call 961-8288; for Maui County call 270-7235; on Kauai call 241-6677.

23. Historic Preservation review If the parcel(s) affected by construction (well location/access road/infrastructure for well) has been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHDP or through an OEQC Environmental Permit, Special Management Area Permit, etc.), check "yes" and attach any relevant documentation from SHDP. If the affected parcel(s) has not undergone SHDP review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Please note: You are strongly advised to contact the SHDP to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHDP's concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHDP, please call 692-8015.

SIGNATURES

24. Well Driller This section must be filled out completely for the Well Construction Permit application to be accepted as complete.

25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.

WCPI Permit Instructions and Process Worksheets 2/26/2007
COMMISSION ON WATER RESOURCE MANAGEMENT
WELL CONSTRUCTION/PUMP INSTALLATION
PERMIT PROCESS WORKSHEET

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<td>Construction of well. Note: a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work. b) If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e. go back to step 1 above).</td>
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<td>None</td>
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<td>Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM.</td>
<td>Licensed Well Driller</td>
<td>Within 60 days of completion of Well Construction (the date that ALL aspects of Well Completion Report Part I can be filled in).</td>
</tr>
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<td>Well Completion Report Part II to be returned to CWRM.</td>
<td>Licensed Pump Installer</td>
<td>Within 60 days of completion of Pump Installation (the date that ALL aspects of Well Completion Report Part II can be filled in).</td>
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<td>14</td>
<td>Acceptance of Well Completion Report Part I, Elevation Survey.</td>
<td>CWRM</td>
<td>None</td>
</tr>
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<td>15</td>
<td>Issuance of Certificate of Well Construction Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance of Well Completion Report Part II.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>17</td>
<td>Issuance of Certificate of Pump Installation Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>18</td>
<td>Pumpage may commence, Water Use Reporting required.</td>
<td>Well Operator</td>
<td>Monthly recording.</td>
</tr>
<tr>
<td>19</td>
<td>Abandonment (initiated in Step 2 of process).</td>
<td>Landowner</td>
<td>Until well sealed.</td>
</tr>
</tbody>
</table>

NOTES:
A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 80-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.
B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).
C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
**APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT**

**Instructions:** Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 10 copies and 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 897-0225. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

### WELL LOCATION INFORMATION

1. **STATE WELL NO. (if already assigned)**
   - 1805-10
2. **WELL NAME**
   - SW-2
3. **ISLAND**
   - Oahu
4. **TMK**
   - 9 - 026 - 030

The following must be attached before this application is accepted as complete:
- A portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For new wells, attach a grading plan with cross section profiles showing existing and future profiles.

5. **WELL OPERATOR'S NAME/COMPANY**
   - Covanta Honolulu Resource Recovery Venture
   - Glen Kashiwabara

6. **LANDOWNER'S NAME/COMPANY**
   - City and County of Honolulu
   - Stephen Langham

### PROPOSED WELL CONSTRUCTION

<table>
<thead>
<tr>
<th>Proposed Work</th>
<th>Construction Type</th>
<th>Proposed Pumping Rate, gpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modify Existing Well</td>
<td>Drilled</td>
<td>2319 gpm</td>
</tr>
<tr>
<td>Abandon/Seal Well</td>
<td>Shaft</td>
<td>3.34 million gallons per day</td>
</tr>
</tbody>
</table>

### PROPOSED PUMP INSTALLATION

<table>
<thead>
<tr>
<th>Proposed Work</th>
<th>Method of flow measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install New Pump</td>
<td>Flowmeter</td>
</tr>
<tr>
<td>Replace Pump</td>
<td>Other (explain)</td>
</tr>
</tbody>
</table>

### OTHER LEGAL REQUIREMENTS

If required, items 21, 22 and 23 must be obtained before the Commission can legally issue a permit:

1. **Conservation District Use Permit (CDUP)**
   - Yes
   - No

2. **Special Management Area Permit (SMAP)**
   - Required
   - Not Required

3. **Historic Preservation Division (SHPD)**
   - Required
   - Not Required

### LEGAL DISCLAIMER

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within 2 years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $5000/day.

### Well Driller (Must be filled in if application is for Well Construction)

**Licensee business name**
   - C-57 License No.

**Signature**

**Date**

### Pump Installer (Must be filled in if application is for Pump Installation)

**Licensee business name**
   - C-57/C-57a License No.

**Signature**

**Date**
**PROPOSED WELL SECTION**

*(Please attach schematic if different from diagram provided below)*

Total Depth: **105 ft.**

*The approximate elevation must be referenced to mean sea level (msl)*

Bottom Elevation of Well Limit = (Water Level Elevation - Ground Elevation) / 4

Example: Estimated 2 ft. Water Level Elev.  Bottom Elevation of Well Limit = (2 - (-88 ft.)) / 4 = -18.5 ft.

---

**Solid Casing Material:**

- Carbon Steel: compliant with (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139

  And compliant with (check one or more):
  - ASTM A242 (or A606)
  - Type E
  - Type S
  - Grade B
  - Other

Stainless Steel: (check one):

- ASTM A409 (production wells)
- ASTM A312 (monitor wells)

**ABS Plastic conforming to ASTM F480 and ASTM D1527:** (check one):

- Schedule 40
- Schedule 80
- Schedule 120

**PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241):** (check one):

- Schedule 40
- Schedule 80
- Schedule 120

**Thermoset Plastic: (check one)**

- Filament Wound Resin Pipe conforming to ASTM D2996
- Centrifugally Cast Resin Pipe conforming to ASTM D2997
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3298

**Open Casing Material:**

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<td>Within 60 days of completion of Pump Installation (the date that all aspects of Well Completion Report Part II can be filled in).</td>
</tr>
<tr>
<td>14</td>
<td>Acceptance of Well Completion Report Part I, Elevation Survey.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>15</td>
<td>Issuance of Certificate of Well Construction Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance of Well Completion Report Part II.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>17</td>
<td>Issuance of Certificate of Pump Installation Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>18</td>
<td>Pumpage may commence, Water Use Reporting required.</td>
<td>Well Operator</td>
<td>Monthly recording.</td>
</tr>
<tr>
<td>19</td>
<td>Abandonment (initiated in Step 2 of process).</td>
<td>Landowner</td>
<td>Until well sealed.</td>
</tr>
</tbody>
</table>

**NOTES:**

A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.

B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part I).

C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
Site Map
H-Power Application for Pump Installation Permit.

Legend
△ Well Location
Site Boundary
TMK Boundaries

FIGURE 1
Site Photographs of the Sources and Locations of Proposed End Uses
H-Power Application for Pump Installation Permit.
March 4, 2009

Mr. S. Samuel Joshi, PE, QEP
Manager, Environmental Engineering
Covanta Honolulu Resource Recovery Venture
c/o Covanta Energy Corporation

Dear Mr. Joshi:

Subject: Draft Environmental Impact Statement
H-Power Third Boiler Expansion Project
91-174 Hanua Street – Campbell Industrial Park
Tax Map Key 9-1-26: 30

This is in response to your request, received January 30, 2009, for comments concerning the Draft Environmental Impact Statement (DEIS) for the subject project.

The project site, as well as the adjoining parcels to be used for construction lay-down (Tax Map Key 9-1-26: 33 and 34), are not located in the Special Management Area (SMA) or the shoreline setback, and will not require an SMA permit or shoreline setback variance.

Please note that the project does not require a modification to Conditional Use Permit (CUP) No. 89/CUP1-17, as stated in Section 3.0, "Required Approvals and Permits," of the DEIS. Since the H-Power facility is now owned and operated by the City, it is thus considered to be a "public use and structure" for purposes of the Land Use Ordinance (LUO); and, as such is a permitted use in all zoning districts. When the CUP had originally been issued, the use was then classified as a "utility installation, Type B," since at that time it had been privately owned and operated.

The project will need to obtain an approved zoning waiver, pursuant to LUO Section 21-2.130(a)(1), for any portion of the project which will exceed the maximum 60-foot zoning height for the site.
Thank you for the opportunity to comment on the DEIS. Please contact Blake La Benz of our staff at [redacted] for any questions.

Very truly yours,

David K. Tanoue, Director
Department of Planning and Permitting

DKT:fm
cc: Department of Environmental Services
Office of Environmental Quality Control
AMEC Earth & Environmental, Inc.
March 16, 2009

Mr. S. Samuel Joshi
Covanta Energy Corporation

Dear Mr. Joshi:

SUBJECT: 6E-8 Historic Preservation Review—
DRAFT Environmental Impact Statement (DEIS)—
H-POWER Expansion Project,
Hono'uli'uli Ahupua'a, 'Ewa District, O'ahu, Hawai'i
TMK: (1) 9-026-030, 033, 034

Thank you for the opportunity to review this DRAFT Environmental Impact Statement, which we received via CD on January 28, 2009.

The H-POWER site is located in the Campbell Industrial Park at Kalaeloa [formerly called Barbers Point or Barber's Point]. The H-POWER facility, which began operation in May 1990, is operated by Covanta Honolulu Resource Recovery Venture (CHRRV) on behalf of the City and County of Honolulu.

This project will entail the expansion of the current H-POWER facility onto parcels 33 and 34 adjacent to the current facility. They are currently vacant. A garden for endemic plants and the site for the reburial of a single human burial previously discovered when the initial facility was built in the 1980’s area present on the site. Because of the possibility that sinkholes prevalent in this portion of 'Ewa could contain historic properties, an archaeological and cultural impact assessment study in support of the proposed expansion on 24.635 acres of industrially zoned land was undertaken to determine the presence or absence of historic properties (ARCHAEOLOGICAL AND CULTURAL IMPACT ASSESSMENTS FOR THE PROPOSED H-POWER EXPANSION PROJECT, HONO'ULI'ULI AHUPUA'A, 'EWA DISTRICT, ISLAND OF O'AHU, TMK: (1) 9-1-026:30, 33, AND 34 [McCoy and Clark, September 2008]).

There is evidence that large portions of Parcels 33 and 34 have been grubbed and graded. Clearing may have occurred on more than one occasion. Aerial photographs suggest that the land clearing project undertaken by Campbell Estate in the early 1960s on Parcel 30 and documented during the archaeological reconnaissance survey in 1983 also included Parcels 33 and 34.

No historic properties were recorded during this archaeological assessment; however, it is recommended that precautionary monitoring be performed during any ground disturbing activities. We find that there are no historic properties affected by this project.

Please call Wendy Tolleson at [Contact Information] if there are any questions or concerns regarding this letter.
Aloha,

Nancy A. McMahon (Deputy SHPO)
State Historic Preservation Officer

CC:

Mr. Stephen Langham
Environmental Services Refuse Division, H_POWER

ENV Director
City and County of Honolulu
Department of Environmental Services

Dr. Russell Okoji
AMEC Earth & Environmental, Inc.
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

Instructions: Please print in ink of type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 10 copies and 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 808-629-2. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

WELL LOCATION INFORMATION
1. STATE WELLS: (if already assigned) 1908-09
2. WELL NAME 3. ISLAND 4. TMK 5. TPL/PAR
Covanta Honolulu Resource Recovery Venture 60-1006
Glen Kashwabara Oahu Oahu 9 1 026 030

The following must be attached before this application is accepted as complete:
• Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quadrangle map
• Property tax map, showing well location referenced to established property boundaries
• Photograph of the proposed well site
• A schematic diagram showing the well site, access road and proposed well infrastructure
• For dog wells, attach a grading plan with cross section profiles showing existing and finish grades

WELL OPERATOR'S NAME/COMPANY | Well Operator's Contact | LANDOWNER'S NAME/COMPANY | City and County of Honolulu | Landowner's Contact
Covanta Honolulu Resource Recovery Venture | Glen Kashwabara | Stephen Langham

Well Operator's Making Address | Landowner's Making Address
Well Operator's Phone | Well Operator's E-mail
Well Operator's Fax | Landowner's Phone

PROPOSED WELL CONSTRUCTION
□ Construct New Well □ Drilled □ Install New Pump □ No
□ Modify Existing Well □ Dug □ Replace Pump □
□ Abandon/Seal Well □ Shaft □ Pump 2319 gpm □

9. Is this well part of a battery of wells? □ Yes □ No

10. Proposed Pumping Rate, gpm
□ 33.4 gpm 11. Proposed Pumping Rate, gpm
□ 2319 gpm 12. Proposed Amount of Withdrawal, gpd (gallons per day)
□ 33.4 million gallons per day (total withdrawal from 2 wells)

13. Method of flow measurement □ Piezometer □ Other (explain)

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

PROPOSED PUMP INSTALLATION
15. Municipal (water systems serving greater than 25 individuals or 15 service connections)
□ Yes □ No

16. Domestic Number of units to be served:


18. Irrigation (describe crop and no. of acres)

19. Military (describe)

20. Other (describe)

OTHER LEGAL REQUIREMENTS
If required, items 21. and 22. must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP) □ Wells in Conservation District □ Required, CDUP □ Date approved
□ Not Required (attach documentation from OCC) □ I have not checked with OCC, about whether or not a CDUP is required. I understand that checking with OCC prior to making this application will expedite my review. Further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.
□ Wells is in Conservation District □ I have not checked if well is in or out of Conservation District. I understand that checking if the well is in a Conservation District may expedite my review. I further understand that issues raised may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

22. Special Management Area Permit (SMAP) □ Required, SMA □ Date approved
□ Not Required (attach documentation from applicable County agency) □ I have not checked with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.
□ Special Management Area □ I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
□ Special Management Area □ I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued. Additionally, the history of past land use is attached.

Additional remarks, explanations, etc. (attach additional sheet if more space is needed)

Proposed pump installation is not in an SMA area

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $5000/day.

24. WELL DRILLER (Must be filled out if application is for Well Construction)
Licensee business name C-57 License No.
Signature Print Date

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)
Will be provided at the time the Contractor is Selected
Licensee business name C-57/C-57A License No.
Signature Print Date

WCP Application Form 02/26/2007
PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Elevation at top of casing: 12 ft., msl

Minimum of 2' Radius & 4" Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 fl.)

Ground Elevation: 10.17 ft., msl

Solid Casing: (≥ 90% x (Ground Elev.-Water Level Elev))
Total Length: 50 ft.
Nominal Diameter: 18 in.
Wall Thickness: varies in.
Bottom Elevation: -38 ft., msl

Open Casing: □ Perforated □ Screen
Total Length: 50 ft.
Nominal Diameter: 18 in.
Wall Thickness: varies in.
Bottom Elevation: -58 ft., msl

* The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Elevation - 1/4 on Aquifer Thickness)
Example: Estimated + 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = (2 - 1/4) = -18.5 ft.

Solid Casing Material:
Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
And compliant with (check one or more): □ ASTM A242 (or A606) □ Type E □ Type S □ Grade B □ Other
Stainless Steel: (check one): □ ASTM A409 (production welds) □ ASTM A312 (monitor welds)
ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one) □ Schedule 40 □ Schedule 80
PVC Plastic conforming to ASTM F490 and (ASTM D1765 or ASTM D2241): (check one): □ Schedule 40 □ Schedule 80 □ Schedule 120
Thermoset Plastic: (check one)
□ filament wound resin pipe conforming to ASTM D2997
□ centrifugally cast resin pipe conforming to ASTM D2997
□ reinforced plastic mortar pressure pipe conforming to ASTM D3517
□ glass fiber reinforced resin pressure pipe conforming to AWWA C950
□ PTFE fluorocarbon tubing conforming to ASTM D3296
□ FEP fluorocarbon tubing conforming to ASTM D3296

Open Casing Material:
Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
And compliant with (check one or more): □ ASTM A242 (or A606) □ Type E □ Type S □ Grade B □ Other
Stainless Steel: (check one): □ ASTM A409 (production welds) □ ASTM A312 (monitor welds)
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Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to ensure that your as-built is in compliance with applicable standards.
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION
☐ Fill in the most recent application form.
(www.hawaii.gov/ddew/cwrm or call 587-0225 for updates)
☐ Fill every line in (both sides of application).
☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.
☐ Mark the proposed well location on: the appropriate USGS quad map, the TMK map, the photo and the schematic, and attach to the application.
☐ For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.
☐ Attach the original and 10 copies of the application form, maps, photo and schematic.
☐ Attach letters from OCCL and appropriate county agencies regarding items 21 to 23.
☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

DESCRIPTIONS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION
1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. ISLAND The island name that the well is located on.
4. TMK Tax Map Key number
5. Well operator’s information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumpage when the construction is completed.
6. Landowner’s information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION
7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. Construction type The construction type can be drilled, dug, shaft, or tunnel.
9. Battery Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes functions as a single source.

PROPOSED PUMP INSTALLATION
10. Proposed work The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission of a Well Completion Report Part II.
11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed (the proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. Method of flow measurement This is the proposed method the operator will be using to measure pumpage for reporting purposes.

PROPOSED SURVEYOR
14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it is necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write “deferred” in this space.

PROPOSED USE
15. Municipal Use is for municipal use, such as the supply of water for fire protection, for drinking, bathing, cooking, and sanitation.
16. Domestic Use is for individual personal needs and is for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.
17. Industrial Use is for uses such as cooling or processing water, etc.
18. Irrigation Use is for golf courses, agriculture, etc.
19. Military Use is water used by the military from military operated water supply systems.
20. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS
21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (http://www.hawaii.gov/ddew/gin/maps/lulprog.htm or call 587-2823). If the well is not in a CD, then you may check out in a CD box. If the well site is in a CD you will need to then determine if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCL) of DLNR at 587-0377.
22. Special Management Area Permit (SMAP) To determine if an SMAP is necessary, on Oahu call 527-3734; on Maui call 961-8288; for Maui County call 270-7235; on Kauai call 241-6677.

23. Historic Preservation Review If the parcel(s) affected by construction (well location/access road/infrastructure for well) has been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHPD or through an OEOC Environmental Review, Special Management Area Permit, etc.), check “yes” and attach any relevant documentation from SHPD. If the affected parcel(s) has not undergone SHPD review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Please note: You are strongly advised to contact the SHPD to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHPD’s concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHPD, please call 692-8015.

SIGNATURES
24. Well Driller This section must be filled out completely for the Well Construction Permit application to be accepted as complete.
25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.
<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Responsible Party</th>
<th>Legal Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ensure that if items 21 to 23 of the application are required, that they are obtained prior to applying for a permit. Otherwise, post-application comments obtained from these agencies may delay processing of your application.</td>
<td>Applicant</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Application for Well Construction (or modification) and/or Pump installation (or replacement with larger capacity than existing pump - see note B below).</td>
<td>Licensed Well Driller (for Well Construction) and/or Licensed Pump Contractor (for Pump Installation) (See note C below)</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Issuance of Well Construction Permit to Well Driller (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies’ legal requirements. (See note A below)</td>
</tr>
<tr>
<td>4</td>
<td>Issuance of Pump Installation Permit to Pump Installer (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies’ legal requirements. (See note A below)</td>
</tr>
<tr>
<td>5</td>
<td>Execute/Sign Permit.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Before work activity begins.</td>
</tr>
<tr>
<td>6</td>
<td>Start of Work Notice.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>2 weeks prior to beginning of work activity</td>
</tr>
<tr>
<td>7</td>
<td>Post copy of permit at the work site.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>During entire period of work activity at the site</td>
</tr>
<tr>
<td>8</td>
<td>Construction of well. Note.</td>
<td>Licensed Well Driller</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>a)</td>
<td>If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work.</td>
<td>Licensed Well Driller</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>b)</td>
<td>If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e. go back to step 1 above).</td>
<td>Licensed Well Driller</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>9</td>
<td>Installation of a temporary test pump that can adequately conduct a step-drawdown test (if proposed pump&gt;70 gpm).</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>10</td>
<td>Installation of permanent pump.</td>
<td>Licensed Pump Installer</td>
<td>Within 2 years of issuance of Pump Installation Permit.</td>
</tr>
<tr>
<td>11</td>
<td>Application for permit extension (if required).</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>12</td>
<td>Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM.</td>
<td>Licensed Well Driller</td>
<td>Within 60 days of completion of Well Construction (the date that all aspects of Well Completion Report Part I can be filled in).</td>
</tr>
<tr>
<td>13</td>
<td>Well Completion Report Part II to be returned to CWRM.</td>
<td>Licensed Pump Installer</td>
<td>Within 60 days of completion of Pump Installation (the date that all aspects of Well Completion Report Part II can be filled in).</td>
</tr>
<tr>
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<td>CWRM</td>
<td>None</td>
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<td>None</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance of Well Completion Report Part II.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>17</td>
<td>Issuance of Certificate of Pump Installation Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>18</td>
<td>Pumpage may commence, Water Use Reporting required.</td>
<td>Well Operator</td>
<td>Monthly recording.</td>
</tr>
<tr>
<td>19</td>
<td>Abandonment (initiated in Step 2 of process).</td>
<td>Landowner</td>
<td>Until well sealed.</td>
</tr>
</tbody>
</table>

**NOTES:**
A. For non-compliance of other agencies’ legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.
B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).
C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 10 copies and 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 987-0225. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/wrm.

WELL LOCATION INFORMATION

1. STATE WELL NO. (if already assigned) 1806-10
2. WELL NAME SW-2
3. ISLAND Oahu
4. TMK
zone 9 sec 1026 sec 030
The following must be attached before this application is accepted as complete:
• Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
• Property tax map, showing well location referenced to established property boundaries
• Photograph of the proposed well site
• A schematic diagram showing the well site, access road and proposed well infrastructure
• For dug wells, attach a grading plan with cross section profiles showing existing and finish grades

5. LANDOWNER’S NAME/COMPANY
Covanta Honolulu Resource Recovery Venture
6. LANDOWNER’S MAILING ADDRESS
Glen Kashiwabara
Comptant
City and County of Honolulu
Landowner’s Contact
Stephen Langham
7. LANDOWNER’S PHONE

Well Operator’s Mailing Address

Well Operator’s Fax Well Operator’s E-mail

Well Operator’s Phone Well Operator’s Fax Landowner’s Phone
Landowner’s Fax
Landowner’s E-mail

PROPOSED WELL CONSTRUCTION

7. Proposed Work
☐ Construct New Well
☐ Modify Existing Well
☐ Abandon/Seal Well

8. Construction Type
☐ Drilled
☐ Dug
☐ Shaft
☐ Tunnel

9. Is this well part of a battery of wells? ☐ Yes ☐ No

10. Proposed Work
☐ Install New Pump
☐ Replace Pump

11. Proposed Pumping Rate, gpm
☐ 2319 gpm

12. Proposed Amount of Withdrawal, gpd (gallons per day)
3.34 million gallons per day (total withdrawal from 2 wells)

13. Method of flow measurement
☐ Flowmeter
☐ Other (explain)

PROPOSED PUMP INSTALLATION

14. Proposed Pump Name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

15. Municipal (water systems serving greater than 25 individuals or 15 service connections)
☐ Yes ☐ No

16. Domestic Number of units to be served:

17. Industrial (describe)
Supply Well Pump for Energy from Waste Facility - Increase Flow Rate for Expansion of a 3rd Boiler. Cooling/Boiling

18. Irrigation (describe crop and no. of acres)

19. Military (describe)

20. Other (describe)

OTHER LEGAL REQUIREMENTS

21. Conservation District Use Permit (CDUP)
☐ Well is in Conservation District
☐ Required, CDUP #
☐ Not Required
☐ I have not checked with OCCl about whether or not a CDUP is required. I understand that checking with OCCl prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

☐ Well is not in Conservation District
☐ I have not checked if this well is in Conservation District. I understand that checking if the well is in a Conservation District may expedite my review. I further understand that issues raised may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

22. Special Management Area Permit (SMA)
☐ Required, SMA #
☐ Not Required
☐ I have not consulted with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources
☐ I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.

☐ I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

Additional remarks, explanations, etc. (attach additional sheet if more space is needed) Proposed pump installation is not in an SMA area

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval, 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $5000/day.

24. WELL DRILLER (Must be filled out if application is for Well Construction)
Licensee business name
C-57 License No.
Signature Print Date

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)
Will be provided at the time the Contractor is Selected
Licensee business name
C-57/C-57a/A License No.
Signature Print Date

WCPI Application Form 02/26/2007
PROPOSED WELL SECTION

(Please attach schematic if different from diagram provided below)

Hole Diameter: _______ in.

Minimum of 2' Radius & 4" Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)

Ground Elevation: _______ ft., msl

Solid Casing: (≥ 90% x (Ground Elev.-Water Level Elev))
Total Length: 50 ft.
Nominal Diameter: 18 in.
Well Thickness: varies in.
Bottom Elevation: -38 ft., msl*

Open Casing: [ ] Perforated [ ] Screen
Total Length: 50 ft.
Nominal Diameter: 18 in.
Wall Thickness: varies in.
Bottom Elevation: -88 ft., msl*

Open Hole:
Length: 5 ft.
Diameter: 24 in.
Bottom Elevation: -93 ft., msl*

---

Grouting method:
[ ] Positive displacement
[ ] Other

Annular space between hole and casing (1.5' for positive displacement, 3' for other methods):
3 in.

Rock or Gravel Packing:
63 ft.
Material:
- Crushed Basalt
- Rounded Gravel

Estimated Water Level Elevation: _______ ft., msl*

Cement Grout: 47 ft.
(min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = \( \frac{\text{Water Elevation} - \text{41 ft.}}{4} \) = -18.5 ft.

Example: Estimated + 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = \( \frac{4 - \text{41 ft.}}{4} \) = -18.5 ft.

* The approximate elevation must be referenced to mean sea level (msl) at the line of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = \( \frac{\text{Water Elevation} - \text{41 ft.}}{4} \) = -18.5 ft.

Example: Estimated + 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = \( \frac{4 - \text{41 ft.}}{4} \) = -18.5 ft.

Solid Casing Material:
Carbon Steel: compliant with (check one or more):
- ANSI/AWWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139
And compliant with (check one or more):
- ASTM A242 (or A606)
- Type E
- Type S
- Grade B
- Other

Stainless Steel: (check one):
- ASTM A409 (production wells)
- ASTM A512 (monitor wells)

ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one) Schedule 40 Schedule 80

PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one):
- Schedule 40
- Schedule 80
- Schedule 120

Thermoset Plastic: (check one)
- Filament Wound Resin Pipe conforming to ASTM D2996
- Centrally Cast Resin Pipe conforming to ASTM D2997
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material:
Carbon Steel: compliant with (check one or more):
- ANSI/AWWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139
And compliant with (check one or more):
- ASTM A242 (or A606)
- Type E
- Type S
- Grade B
- Other

Stainless Steel: (check one):
- ASTM A409 (production wells)
- ASTM A512 (monitor wells)

ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one) Schedule 40 Schedule 80

PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one):
- Schedule 40
- Schedule 80
- Schedule 120

Thermoset Plastic: (check one)
- Filament Wound Resin Pipe conforming to ASTM D2996
- Centrally Cast Resin Pipe conforming to ASTM D2997
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296

WCPI Application Form 02/29/2007
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION

☐ Fill in the most recent application form.
☐ Fill every line in (both sides of application).
☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.
☐ Attach the original and 10 copies of the application form, maps, photo and schematic.
☐ Mark the proposed well location on: the appropriate USGS quad map, the TMK map, the photo and the schematic, and attach to the application.
☐ For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.
☐ Attach letters from OCL and appropriate county agencies regarding items 21 to 23.
☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

DESCRIPTIONS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION
1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. ISLAND The island name that the well is located on.
4. TMK Tax Map Key number
5. Well operator’s information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumpage when the construction is completed.
6. Landowner’s information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION
7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. Construction type The construction type can be drilled, dug, shaft, or tunnel.
9. Battery Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes functions as a single source.

PROPOSED PUMP INSTALLATION
10. Proposed work The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission of a Well Completion Report Part II.
11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed (the proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. Method of flow measurement This is the proposed method the operator will be using to measure pumpage for reporting purposes.

PROPOSED SURVEYOR
14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it is necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write “deferred” in this space.

PROPOSED USE
15. Municipal Use is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term “domestic use”.
16. Domestic Use is any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.
17. Industrial Use is for uses such as cooling or processing water, etc.
18. Irrigation Use is for golf courses, agriculture, etc.
19. Military Use is water used by the military from military operated water supply systems.
20. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS
21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (http://www.hawaii.gov/ldlnr/maps/luc/map or call 587-2833). If the well is not in a CD, then you may check not in a CD box. If the well site is in a CD you will need to then determine if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCL) at DLRN at 587-0377.
22. Special Management Area Permit (SMAP) To determine if an SMAP is necessary, on Oahu call 327-5374; on Hawaii call 961-8288; for Maui County call 270-7235; on Kauai call 241-6677.
23. Historic Preservation review If the parcel(s) affected by construction (well location/access road/infrastructure for well) has been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHPD or through an OEQC Environmental Review, Special Management Area Permit, etc.), check “yes” and attach any relevant documentation from SHPD. If the affected parcel(s) has not undergone SHPD review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Please note: You are strongly advised to contact the SHPD to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHPD’s concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHPD, please call 692-8015.

SIGNATURES
24. Well Driller This section must be filled out completely for the Well Construction Permit application to be accepted as complete.
25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Responsible Party</th>
<th>Legal Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ensure that if items 21 to 23 of the application are required, they are obtained prior to applying for a permit. Otherwise, post-application comments obtained from these agencies may delay processing of your application.</td>
<td>Applicant</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Application for Well Construction (or modification) and/or Pump installation (or replacement with larger capacity than existing pump - see note B below).</td>
<td>Licensed Well Driller (for Well Construction) and/or Licensed Pump Contractor (for Pump installation) (See note C below)</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Issuance of Well Construction Permit to Well Driller (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. (See note A below)</td>
</tr>
<tr>
<td>4</td>
<td>Issuance of Pump Installation Permit to Pump Installer (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. (See note A below)</td>
</tr>
<tr>
<td>5</td>
<td>Execute/Sign Permit.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Before work activity begins.</td>
</tr>
<tr>
<td>6</td>
<td>Start of Work Notice.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>2 weeks prior to beginning of work activity.</td>
</tr>
<tr>
<td>7</td>
<td>Post copy of permit at the work site.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>During entire period of work activity at the site.</td>
</tr>
<tr>
<td>8</td>
<td>Construction of well. Note: a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work. b) If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e. go back to step 1 above).</td>
<td>Licensed Well Driller</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>9</td>
<td>Installation of a temporary test pump that can adequately conduct a step-drawdown test (if proposed pump&gt;70 gpm).</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>10</td>
<td>Installation of permanent pump.</td>
<td>Licensed Pump Installer</td>
<td>Within 2 years of issuance of Pump Installation Permit.</td>
</tr>
<tr>
<td>11</td>
<td>Application for permit extension (if required).</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>12</td>
<td>Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM.</td>
<td>Licensed Well Driller</td>
<td>Within 60 days of completion of Well Construction (the date that ALL aspects of Well Completion Report Part I can be filled in).</td>
</tr>
<tr>
<td>13</td>
<td>Well Completion Report Part II to be returned to CWRM.</td>
<td>Licensed Pump Installer</td>
<td>Within 60 days of completion of Pump Installation (the date that ALL aspects of Well Completion Report Part II can be filled in).</td>
</tr>
<tr>
<td>14</td>
<td>Acceptance of Well Completion Report Part I, Elevation Survey.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>15</td>
<td>Issuance of Certificate of Well Construction Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance of Well Completion Report Part II.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>17</td>
<td>Issuance of Certificate of Pump Installation Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>18</td>
<td>Pumpage may commence, Water Use Reporting required.</td>
<td>Well Operator</td>
<td>Monthly recording.</td>
</tr>
<tr>
<td>19</td>
<td>Abandonment (initiated in Step 2 of process).</td>
<td>Landowner</td>
<td>Until well sealed.</td>
</tr>
</tbody>
</table>

**NOTES:**

A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.

B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).

C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
Site Map
H-Power Application for Pump Installation Permit.
FIGURE 2

TMK Map
H-Power Application for Pump Installation Permit.
Site Photographs of the Sources and Locations of Proposed End Uses
H-Power Application for Pump Installation Permit.
March 4, 2009

Mr. S. Samuel Joshi, PE, QEP
Manager, Environmental Engineering
Covanta Honolulu Resource Recovery Venture
c/o Covanta Energy Corporation

Dear Mr. Joshi:

Subject: Draft Environmental Impact Statement
H-Power Third Boiler Expansion Project
91-174 Hanua Street – Campbell Industrial Park
Tax Map Key 9-1-26: 30

This is in response to your request, received January 30, 2009, for comments concerning the Draft Environmental Impact Statement (DEIS) for the subject project.

The project site, as well as the adjoining parcels to be used for construction lay-down (Tax Map Key 9-1-26: 33 and 34), are not located in the Special Management Area (SMA) or the shoreline setback, and will not require an SMA permit or shoreline setback variance.

Please note that the project does not require a modification to Conditional Use Permit (CUP) No. 89/CUP1-17, as stated in Section 3.0, "Required Approvals and Permits," of the DEIS. Since the H-Power facility is now owned and operated by the City, it is thus considered to be a “public use and structure” for purposes of the Land Use Ordinance (LUO); and, as such is a permitted use in all zoning districts. When the CUP had originally been issued, the use was then classified as a "utility installation, Type B," since at that time it had been privately owned and operated.

The project will need to obtain an approved zoning waiver, pursuant to LUO Section 21-2.130(a)(1), for any portion of the project which will exceed the maximum 60-foot zoning height for the site.
Mr. S. Samuel Joshi  
March 4, 2009  
Page 2  

Thank you for the opportunity to comment on the DEIS. Please contact Blake La Benz of our staff at [REDACTED] for any questions.

Very truly yours,

[Signature]

David K. Tanoue, Director  
Department of Planning and Permitting

DKT:fm  
cc: Department of Environmental Services  
Office of Environmental Quality Control  
AMEC Earth & Environmental, Inc.

G:\LandUse\Posse\Working\Directory\blake\Correspondence\09ELOG-234.doc
March 16, 2009

Mr. S. Samuel Joshi
Covanta Energy Corporation

Dear Mr. Joshi:

SUBJECT: 6E-8 Historic Preservation Review—
DRAFT Environmental Impact Statement (DEIS)—
H-POWER Expansion Project,
Hono‘u’u‘u Ahupua‘a, ‘Ewa District, O‘ahu, Hawai‘i
TMK: (1) 9-026-030, 033, 034

Thank you for the opportunity to review this DRAFT Environmental Impact Statement, which we received via CD on January 28, 2009.

The H-POWER site is located in the Campbell Industrial Park at Kalaeloa [formerly called Barbers Point or Barber’s Point]. The H-POWER facility, which began operation in May 1990, is operated by Covanta Honolulu Resource Recovery Venture (CHRRV) on behalf of the City and County of Honolulu.

This project will entail the expansion of the current H-POWER facility onto parcels 33 and 34 adjacent to the current facility. They are currently vacant. A garden for endemic plants and the site for the reburial of a single human burial previously discovered when the initial facility was built in the 1980’s area present on the site. Because of the possibility that sinkholes prevalent in this portion of ‘Ewa could contain historic properties, an archaeological and cultural impact assessment study in support of the proposed expansion on 24.635 acres of industrially zoned land was undertaken to determine the presence or absence of historic properties (ARCHAEOLOGICAL AND CULTURAL IMPACT ASSESSMENTS FOR THE PROPOSED H-POWER EXPANSION PROJECT, HONO‘U‘UI AHUPUA‘A, ‘EWA DISTRICT, ISLAND OF O‘AHU, TMK: (1) 9-1-026:30, 33, AND 34 [McCoy and Clark, September 2008].

There is evidence that large portions of Parcels 33 and 34 have been grubbed and graded. Clearing may have occurred on more than one occasion. Aerial photographs suggest that the land clearing project undertaken by Campbell Estate in the early 1960s on Parcel 30 and documented during the archaeological reconnaissance survey in 1983 also included Parcels 33 and 34.

No historic properties were recorded during this archaeological assessment; however, it is recommended that precautionary monitoring be performed during any ground disturbing activities. We find that there are no historic properties affected by this project.

Please call Wendy Tolleson at [redacted] if there are any questions or concerns regarding this letter.
Aloha,

Nancy A. McMahon (Deputy SHPO)
State Historic Preservation Officer

CC:

Mr. Stephen Langham
Environmental Services Refuse Division, H_Power

ENV Director
City and County of Honolulu
Department of Environmental Services

Dr. Russell Okoji
AMEC Earth & Environmental, Inc.
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 821, Honolulu, Hawaii 96809. Application must be accompanied by 10 copies and 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 587-9225. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

WELL LOCATION INFORMATION
1. STATE WELL NO. (if already assigned) 1809-09
2. WELL NAME SW-1
3. ISLAND Oahu
4. TMK 1 026 030
The following must be attached before this application is accepted as complete:
• Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quadr.
• Property tax map, showing well location referenced to established property boundaries
• Photograph of the proposed well site
• A schematic diagram showing the well site, access road and proposed well infrastructure
• For dug wells, attach a grading plan with cross section profiles showing existing and finished grade.

Covanta Honolulu Resource Recovery Venture, Glen Kashiwabara
Well Operator's Mailing Address

WELL OPERATOR'S NAME/COMPANY

10. Proposed Work
• Construct New Well
• Modify Existing Well
• Abandon/Seal Well
• Replace Pump

11. Proposed Pumping Rate, gpm (gallons per minute)
2319 gpm

12. Proposed Amount of Withdrawal, gpd (gallons per day)
3.34 million gallons per day (total withdrawal from 2 wells)

15. Municipal (water systems serving greater than 25 individuals or 15 service connections)
16. Domestic Number of units to be served: _______
18. Irrigation (describe crop and no. of acres)
19. Military (describe)
20. Other (describe)

OTHER LEGAL REQUIREMENTS
If required, items 21. and 22. must be obtained before the Commission can legally issue a permit:
21. Conservation District Use Permit (CDUP)
• Well is in Conservation District
• Required, CDUP #_________ date approved ____________
• Not Required (attach documentation from OCCL)
• I have not checked with OCCL about whether or not a CDUP is required. I understand that checking with OCCL prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

22. Special Management Area Permit (SMAP)
• Required, SMA #_________ date approved ____________
• Not Required (attach documentation from applicable County agency)
• I have not consulted with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources
• I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
• I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued. Additionally, the history of past land use is attached.

Additional remarks, explanations, etc. (attach additional sheet if more space is needed)

Proposed pump installation is not in an SMA area

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge.

FURTHER, the signatories understand that upon permit approval: 1) the proposed work to be completed within two (2) years of the approval date; and, the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $500/day.

24. WELL DRILLER (Must be filled out if application is for Well Construction)
Licensee business name C-57 License No. C-571/C-57a License No.
Signature Print Date

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)
Will be provided at the time the Contractor is Selected
Licensee business name C-571/C-57a License No.
Signature Print Date

WCPI Application Form 02/26/2007
**PROPOSED WELL SECTION**

(Please attach schematic if different from diagram provided below)

- **Elevation at top of casing:** 12 ft., msl*
- **Ground Elevation:** 10.17 ft., msl*
- **Cement Grout:** 47 ft. (min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)
- **Gruning method:**
  - Positive displacement
  - Other
- **Annular space between hole and casing:** (1.5" for positive displacement, 3" for other methods)
  - 3 in.
- **Rock or Gravel Packing:** 53 ft. material:
  - Crushed Basalt
  - Rounded Gravel
- **Estimated Water Level Elevation:** ft. msl*

---

**Solid Casing Material:**

Carbon Steel: compliant with (check one or more):
- ANSI/AWWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139

And compliant with (check one or more):
- ASTM A242 (or A606)
- Type E
- Type S
- Grade B
- Other

Stainless Steel: (check one):
- ASTM A409 (production wells)
- ASTM A312 (monitor wells)

ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)
- Schedule 40
- Schedule 80

PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2341): (check one)
- Schedule 40
- Schedule 80
- Schedule 120

Thermoset Plastic: (check one)
- Filament Wound Resin Pipe conforming to ASTM D2996
- Centrifugally Cast Resin Pipe conforming to ASTM D2997
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296

**Open Casing Material:**

Carbon Steel: compliant with (check one or more):
- ANSI/AWWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139

And compliant with (check one or more):
- ASTM A242 (or A606)
- Type E
- Type S
- Grade B
- Other

Stainless Steel: (check one):
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- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296

---

* The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basalt Wells - bottom elevation of well shall not be deeper than 1/4 of aquifer thickness or,

Bottom Elevation of Well Limit = \( \frac{\text{Water Elevation} - msl^*}{4} \)

Example: Estimated + 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = \( 2 - \frac{18.5}{4} \) = -18.5 ft.

---

**Solid Construction Material**:

- 18" O.D. X 440" wall
- Solid PVC, Class 100,
- SDR 41, ASTM D-2441

**Open Casing Material**:

- 18" O.D. X 440" wall
- Solid PVC, Class 100,
- SDR 41, ASTM D-2441

Perforation .08 sq. ft/ft.

---

[WCPI Application Form 02/26/2007]
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION
☐ Fill in the most recent application form.
(www.hawaii.gov/dlnr/cwrm or call 587-0225 for updates)
☐ Fill every line in (both sides of application).
☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.
☐ Mark the proposed well location on; the appropriate USGS quad map, the TMK map, the photo and the schematic, and attach to the application.
☐ For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.
☐ Attach the original and 10 copies of the application form, maps, photo and schematic.
☐ Attach letters from OCCII and appropriate county agencies regarding items 21 to 23.
☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

DESCRIPTIONS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION
1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. ISLAND The island name that the well is located on.
4. TMK Tax Map Key number
5. Well operator's information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumping when the construction is completed.
6. Landowner's Information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION
7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. Construction type The construction type can be drilled, dug, shaft, or tunnel.
9. Battery Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes functions as a single source.

PROPOSED PUMP INSTALLATION
10. Proposed work The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission of a Well Completion Report Part II.
11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed (the proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. Method of flow measurement This is the proposed method the operator will be using to measure pumpage for reporting purposes.

PROPOSED SURVEYOR
14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it is necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write "deferred" in this space.

PROPOSED USE
15. Municipal Use is for uses such as cooling or processing water, etc.
16. Irrigation Use is for golf courses, agriculture, etc.
17. Military Use is water used by the military from military operated water supply systems.
18. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS
21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (http://www.hawaii.gov/dlncgis/maps/sldog.asp or call 587-2833). If the well is not in a CD, then you may need to determine if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCCL) at DLNR at 587-3377.
22. Special Management Area Permit (SMA) To determine if an SMA is necessary, on Oahu call 527-5374; on Hawaii call 961-8288; for Maui County call 270-7235; on Kauai call 241-6677
23. Historic Preservation review If the parcel(s) affected by construction (well location/access road/infrastructure for well) has been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHPD or through an EOCQ Environmental Review, Special Management Area Permit, etc.), check "yes" and attach any relevant documentation from SHPD. If the affected parcel(s) has not undergone SHPD review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Please note: You are strongly advised to contact the SHPD to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHPD's concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHPD, please call 692-8015.

SIGNATURES
24. Well Driller This section must be filled out completely for the Well Construction Permit application to be accepted as complete.
25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.

WCPI Permit Instructions and Process Worksheets 2/26/2007
### COMMISSION ON WATER RESOURCE MANAGEMENT
### WELL CONSTRUCTION/PUMP INSTALLATION
### PERMIT PROCESS WORKSHEET

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Responsible Party</th>
<th>Legal Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ensure that if items 21 to 23 of the application are required, that they are obtained prior to applying for a permit. Otherwise, post-application comments obtained from these agencies may delay processing of your application.</td>
<td>Applicant</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Application for Well Construction (or modification) and/or Pump Installation (or replacement with larger capacity than existing pump - see note B below).</td>
<td>Licensed Well Driller (for Well Construction) and/or Licensed Pump Contractor (for Pump Installation) (see note C below)</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Issuance of Well Construction Permit to Well Driller (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. (See note A below)</td>
</tr>
<tr>
<td>4</td>
<td>Issuance of Pump Installation Permit to Pump Installer (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. (See note A below)</td>
</tr>
<tr>
<td>5</td>
<td>Execute/Sign Permit.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Before work activity begins.</td>
</tr>
<tr>
<td>6</td>
<td>Start of Work Notice.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>2 weeks prior to beginning of work activity.</td>
</tr>
<tr>
<td>7</td>
<td>Post copy of permit at the work site.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>During entire period of work activity at the site.</td>
</tr>
<tr>
<td>8</td>
<td>Construction of well. Note:</td>
<td>Licensed Well Driller</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td></td>
<td>a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e. go back to step 1 above).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Installation of a temporary test pump that can adequately conduct a step-drawdown test (if proposed pump&gt;70 gpm).</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>10</td>
<td>Installation of permanent pump.</td>
<td>Licensed Pump Installer</td>
<td>Within 2 years of issuance of Pump Installation Permit.</td>
</tr>
<tr>
<td>11</td>
<td>Application for permit extension (if required).</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>12</td>
<td>Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM.</td>
<td>Licensed Well Driller</td>
<td>Within 60 days of completion of Well Construction (the date that ALL aspects of Well Completion Report Part I can be filled in).</td>
</tr>
<tr>
<td>13</td>
<td>Well Completion Report Part II to be returned to CWRM.</td>
<td>Licensed Pump Installer</td>
<td>Within 60 days of completion of Pump Installation (the date that ALL aspects of Well Completion Report Part II can be filled in).</td>
</tr>
<tr>
<td>14</td>
<td>Acceptance of Well Completion Report Part I, Elevation Survey.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>15</td>
<td>Issuance of Certificate of Well Construction Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance of Well Completion Report Part II.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>17</td>
<td>Issuance of Certificate of Pump Installation Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>18</td>
<td>Pumpage may commence, Water Use Reporting required.</td>
<td>Well Operator</td>
<td>Monthly recording.</td>
</tr>
<tr>
<td>19</td>
<td>Abandonment (initiated in Step 2 of process).</td>
<td>Landowner</td>
<td>Until well sealed.</td>
</tr>
</tbody>
</table>

### NOTES:
A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.
B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).
C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 10 copies and 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 877-0225. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

WELL LOCATION INFORMATION
1. STATE WELL NO. (if already assigned) 1806-10
2. WELL NAME INSTALLED

3. ISLAND Oahu
4. TMK 09 1 026 030

The following must be attached before this application is accepted as complete:
- Part of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For dug wells, attach a grading plan with cross section profiles showing existing and finished grades

5. WELL OPERATOR'S NAME/COMPANY Covanta Honolulu Resource Recovery Venture
6. INSTALLER's NAME/CITY Cove Operator's Contact
7. INSTALLER's CONTACT Stephen Kashiwabara
8. LANDOWNER'S NAME/CITY OF Honolulu
9. LANDOWNER'S MAILING ADDRESS

PROPOSED WELL CONSTRUCTION
8. Construction Type
- Drilled
- Dug
- Shaft
- Other

10. Proposed Work
A. Install New Pump
B. Install Existing Pump
C. Modify Existing Well
D. Abandon/Seal Well

PROPOSED PUMP INSTALLATION
11. Proposed Pumping Rate, gpm
12. Proposed Amount of Withdrawal, gpd
13. Method of flow measurement
   - Floometer
   - Other (explain)

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

PROPOSED USE
- 15. Municipal (water systems serving greater than 25 individuals or 15 service connections)
- 16. Domestic
- 18. Irrigation (describe crop and no. of acres)
- 19. Military (describe)
- 20. Other (describe)

OTHER LEGAL REQUIREMENTS
If required, items 21. and 22. must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)
- Well is in Conservation District
- Required, CDUP #
- Not Required (attach documentation from OCPCL)
- I have not checked with OCPCL about whether or not a CDUP is required. I understand that checking with OCPCL prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.
- I have not checked if well is in a Conservation District. I understand that checking if the well is in a Conservation District may expedite my review. I further understand that issues raised may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

22. Special Management Area Permit (SMA)
- Required, SMA #
- date approved
- Not Required (attach documentation from applicable County agency)
- I have not checked with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.
- I have not checked with the County regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.

23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources
- I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
- I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

Additional remarks, expansions, etc. (attach additional sheet if more space is needed) Proposed pump installation is not in an SMA area.

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within 2 (two) years of the approval date, 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $500/day.

24. WELL DRILLER (Must be filled out if application is for Well Construction)
- Licensee business name
- C-57 License No.
- Signature
- Print
- Date

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)
- Licensee business name
- C-57/C-57a License No.
- Signature
- Print
- Date

WCPI Application Form 02/26/2007
PROPOSED WELL SECTION

(Provide schematic if different from diagram provided below)

- Elevation at top of casing: 12 ft, msl

- Minimum of 2" Radius & 4" Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)

- Ground Elevation: 12.63 ft, msl

Grouting method:
- Positive displacement
- Other

Rock or Gravel Packing:
- Crushed Basalt
- Rounded Gravel

Estimated Water Level Elevation:
- ft, msl

Solid Casing: (≥ 90% x (Ground Elev.-Water Level Elev.))
- Total Length: 50 ft
- Nominal Diameter: 18 in.
- Wall Thickness: varies in.
- Bottom Elevation: -38 ft, msl

Open Casing:
- Perforated
- Screen
- Total Length: 50 ft
- Nominal Diameter: 18 in.
- Wall Thickness: varies in.
- Bottom Elevation: -88 ft, msl

Note: Neither bentonite nor mud should be used in saturated zone during drilling

Solid Casing Material:
- Carbon Steel: compliant (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139

- Stainless Steel: (check one):
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)

- ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one):
  - Schedule 40
  - Schedule 80

- PVC Plastic conforming to ASTM F490 and ASTM D1241: (check one):
  - Schedule 40
  - Schedule 80

Thermoset Plastic: (check one):
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Bottom Elevation:
- ft, msl

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or,

Bottom Elevation of Well Limit = (Water Elevation - 4 x Water Level Elev.)

Example: Estimated + 2 ft. Water Level Elev. --- Bottom Elevation of Well Limit = (2 - 4 x 2) = -18.5 ft.

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PROPOSED USE

15. Municipal Use is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term “domestic use”.
16. Domestic Use is any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.
17. Industrial Use is for uses such as cooling or processing water, etc.
18. Irrigation Use is for golf courses, agriculture, etc.
19. Military Use is water used by the military from military operated water supply systems.
20. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS

21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (http://www.hawaii.gov/deed/pio/maps/cdwp.pdf or call 587-2833). If the well is not in a CD, then you may check not in a CD box. If the well site is in a CD you will need to then determine if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCL) of DLNR at 587-3077.
22. Special Management Area Permit (SMAP) To determine if an SMAP is necessary, please check the box.
23. Historic Preservation review If the parcel(s) affected by construction (well location/access road/infrastructure for well) has been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHPD or through an OEQC Environmental Review. If Special Management Area Permit, etc.), check “yes” and attach any relevant documentation from SHPD. If the affected parcel(s) has not undergone SHPD review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Please note: You are strongly advised to contact the SHPD to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHPD’s concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHPD, please call 587-8033.

SIGNATURES

24. Well Driller This section must be filled out completely for the Well Construction Permit application to be accepted as complete.
25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.
<table>
<thead>
<tr>
<th>Step</th>
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<td>Applicant</td>
<td>None</td>
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<td>2</td>
<td>Application for Well Construction (or modification) and/or Pump Installation (replacement with larger capacity than existing pump - see note B below).</td>
<td>Licensed Well Driller (for Well Construction) and/or Licensed Pump Contractor (for Pump Installation) (See note C below)</td>
<td>None</td>
</tr>
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<td>3</td>
<td>Issuance of Well Construction Permit to Well Driller (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. (See note A below)</td>
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<tr>
<td>4</td>
<td>Issuance of Pump Installation Permit to Pump Installer (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. (See note A below)</td>
</tr>
<tr>
<td>5</td>
<td>Execute/Sign Permit.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Before work activity begins.</td>
</tr>
<tr>
<td>6</td>
<td>Start of Work Notice.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>2 weeks prior to beginning of work activity.</td>
</tr>
<tr>
<td>7</td>
<td>Post copy of permit at the work site.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>During entire period of work activity at the site.</td>
</tr>
<tr>
<td>8</td>
<td>Construction of well. Note: a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work. b) If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e. go back to step 1 above).</td>
<td>Licensed Well Driller</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>9</td>
<td>Installation of a temporary test pump that can adequately conduct a step-drawdown test (if proposed pump&gt;70 gpm).</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>10</td>
<td>Installation of permanent pump.</td>
<td>Licensed Pump Installer</td>
<td>Within 2 years of issuance of Pump Installation Permit.</td>
</tr>
<tr>
<td>11</td>
<td>Application for permit extension (if required).</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>12</td>
<td>Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM.</td>
<td>Licensed Well Driller</td>
<td>Within 60 days of completion of Well Construction (the date that ALL aspects of Well Completion Report Part I can be filled in).</td>
</tr>
<tr>
<td>13</td>
<td>Well Completion Report Part II to be returned to CWRM.</td>
<td>Licensed Pump Installer</td>
<td>Within 60 days of completion of Pump Installation (the date that ALL aspects of Well Completion Report Part II can be filled in).</td>
</tr>
<tr>
<td>14</td>
<td>Acceptance of Well Completion Report Part I, Elevation Survey.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>15</td>
<td>Issuance of Certificate of Well Construction Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance of Well Completion Report Part II.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>17</td>
<td>Issuance of Certificate of Pump Installation Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>18</td>
<td>Pumpage may commence, Water Use Reporting required.</td>
<td>Well Operator</td>
<td>Monthly recording.</td>
</tr>
<tr>
<td>19</td>
<td>Abandonment (initiated in Step 2 of process).</td>
<td>Landowner</td>
<td>Until well sealed.</td>
</tr>
</tbody>
</table>

**NOTES:**

A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:

a) Have the 90-day deadline for approval waived (at your request); or
b) Be denied and you can seek recourse at a Commission hearing.

C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
Site Map
H-Power Application for Pump Installation Permit.
FIGURE 2

TMK Map
H-Power Application for Pump Installation Permit.
Site Photographs of the Sources and Locations of Proposed End Uses

H-Power Application for Pump Installation Permit.
March 4, 2009

Mr. S. Samuel Joshi, PE, QEP
Manager, Environmental Engineering
Covanta Honolulu Resource Recovery Venture
c/o Covanta Energy Corporation

Dear Mr. Joshi:

Subject: Draft Environmental Impact Statement
H-Power Third Boiler Expansion Project
91-174 Hanua Street – Campbell Industrial Park
Tax Map Key 9-1-26: 30

This is in response to your request, received January 30, 2009, for comments concerning the Draft Environmental Impact Statement (DEIS) for the subject project.

The project site, as well as the adjoining parcels to be used for construction lay-down (Tax Map Key 9-1-26: 33 and 34), are not located in the Special Management Area (SMA) or the shoreline setback, and will not require an SMA permit or shoreline setback variance.

Please note that the project does not require a modification to Conditional Use Permit (CUP) No. 89/CUP1-17, as stated in Section 3.0, “Required Approvals and Permits,” of the DEIS. Since the H-Power facility is now owned and operated by the City, it is thus considered to be a “public use and structure” for purposes of the Land Use Ordinance (LUO); and, as such is a permitted use in all zoning districts. When the CUP had originally been issued, the use was then classified as a “utility installation, Type B,” since at that time it had been privately owned and operated.

The project will need to obtain an approved zoning waiver, pursuant to LUO Section 21-2.130(a)(1), for any portion of the project which will exceed the maximum 60-foot zoning height for the site.
Thank you for the opportunity to comment on the DEIS. Please contact Blake La Benz of our staff at [redacted] for any questions.

Very truly yours,

David K. Tanoue, Director
Department of Planning and Permitting

DKT:fm
cc: Department of Environmental Services
Office of Environmental Quality Control
AMEC Earth & Environmental, Inc.
March 16, 2009

Mr. S. Samuel Joshi
Covanta Energy Corporation

Dear Mr. Joshi:

SUBJECT: 6E-8 Historic Preservation Review—
DRAFT Environmental Impact Statement (DEIS)—
H-POWER Expansion Project,
Hono‘uli‘uli Ahupua‘a, ‘Ewa District, O‘ahu, Hawai‘i
TMK: (1) 9-026-030, 033, 034

Thank you for the opportunity to review this DRAFT Environmental Impact Statement, which we received via CD on January 28, 2009.

The H-POWER site is located in the Campbell Industrial Park at Kalaeloa [formerly called Barbers Point or Barber’s Point]. The H-POWER facility, which began operation in May 1990, is operated by Covanta Honolulu Resource Recovery Venture (CHRRV) on behalf of the City and County of Honolulu.

This project will entail the expansion of the current H-POWER facility onto parcels 33 and 34 adjacent to the current facility. They are currently vacant. A garden for endemic plants and the site for the reburial of a single human burial previously discovered when the initial facility was built in the 1980’s area present on the site. Because of the possibility that sinkholes prevalent in this portion of ‘Ewa could contain historic properties, an archaeological and cultural impact assessment study in support of the proposed expansion on 24.635 acres of industrially zoned land was undertaken to determine the presence or absence of historic properties (ARCHAEOLOGICAL AND CULTURAL IMPACT ASSESSMENTS FOR THE PROPOSED H-POWER EXPANSION PROJECT, HONO‘ULI‘ULI AHUPUA‘A, ‘EWA DISTRICT, ISLAND OF O‘AHU, TMK: (1) 9-1-026:30, 33, AND 34[McCoy and Clark, September 2008].

There is evidence that large portions of Parcels 33 and 34 have been grubbed and graded. Clearing may have occurred on more than one occasion. Aerial photographs suggest that the land clearing project undertaken by Campbell Estate in the early 1960s on Parcel 30 and documented during the archaeological reconnaissance survey in 1983 also included Parcels 33 and 34.

No historic properties were recorded during this archaeological assessment; however, it is recommended that precautionary monitoring be performed during any ground disturbing activities. We find that there are no historic properties affected by this project.

Please call Wendy Tolleson at [redacted] if there are any questions or concerns regarding this letter.
Aloha,

Nancy A. McMahon (Deputy SHPO)
State Historic Preservation Officer

CC:

Mr. Stephen Langham
Environmental Services Refuse Division, H_POWER

ENV Director
City and County of Honolulu
Department of Environmental Services

Dr. Russell Okoji
AMEC Earth & Environmental, Inc.
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

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 10 copies and 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 For further information and updates to this application form, visit http://www.hawaii.gov/linr/wrm.

## WELL LOCATION INFORMATION

<table>
<thead>
<tr>
<th>1. STATE WELL NO. (if already assigned)</th>
<th>2. WELL NAME</th>
<th>3. ISLAND</th>
<th>4. TMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1906-09 SV-1</td>
<td></td>
<td>Oahu</td>
<td></td>
</tr>
</tbody>
</table>

The following must be attached before this application is accepted as complete:
- Portion of 7.5-Minute Series USGS Topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For dug wells, attach a grading plan with cross section profiles showing existing and finish grades

Covanta Honolulu Resource Recovery Venture
Glen Kashwabara

**Proposed WELL CONSTRUCTION**

<table>
<thead>
<tr>
<th>7. Proposed Work</th>
<th>8. Construction Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct New Well</td>
<td>Drilled</td>
</tr>
<tr>
<td>Abandon/Seal Well</td>
<td>Shaft</td>
</tr>
<tr>
<td>Modify Existing Well</td>
<td>Tunnel</td>
</tr>
</tbody>
</table>

9. Is this well part of a battery of wells? □ Yes □ No

10. Proposed Work
<table>
<thead>
<tr>
<th>10. Proposed Work</th>
<th>11. Proposed Pumping Rate, gpm (gallons per minute)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install New Pump</td>
<td>2319 gpm</td>
</tr>
<tr>
<td>Replace Pump</td>
<td></td>
</tr>
</tbody>
</table>

12. Proposed Amount of Withdrawal, gpd (gallons per day)

3.34 million gallons per day (total withdrawal from 2 wells)

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

## PROPOSED PUMP INSTALLATION

13. Method of flow measurement
□ Flowmeter
□ Other (explain)

15. Municipal (water systems serving greater than 25 individuals or 15 service connections)
□ 16. Domestic Number of units to be served: □

□ 18. Irrigation (describe crop and no. of acres)
□ 19. Military (describe)
□ 20. Other (describe)

## OTHER LEGAL REQUIREMENTS

If required, items 21. and 22. must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)
□ Well is in Conservation District
□ Required, CDUP: date approved
□ Not Required (attach documentation from OCCL)
□ I have not checked with OCCL about whether or not a CDUP is required. I understand that checking with OCCL prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

22. Special Management Area Permit (SMAP)
□ Required, SMA #: date approved
□ Not Required (attach documentation from applicable County agency)
□ I have not checked with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources
□ I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
□ I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

Additional remarks, explanations, etc. (attach additional sheet if more space is needed) Proposed pump installation is not in an SMA area

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

### NOTE:
Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $5000/day.

24. WELL DRILLER (Must be filed out if application is for Well Construction)

Licensee business name
C-57 License No. 

Signature
Print
Date

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)

Licensee business name
C-57/C-57A License No. 

Signature
Print
Date

WCPI Application Form 02/26/2007
**PROPOSED WELL SECTION**  
*(Please attach schematic if different from diagram provided below)*

- **Hole Diameter:** 24 in.
- **Total Depth:** 103 ft.
- **Ground Elevation:** -10.17 ft., msl*
- **Estimated Water Level Elevation:** -88 ft., msl*
- **Minimum of 2' Radius & 4'' Thick Concrete Pad (to contain benchmark)**

**Grouting method:**
- Positive Displacement
- Other

**Rock or Gravel Packing:**
- 53 ft.
- Material:
  - Crushed Basalt
  - Rounded Gravel

**Solid Casing:**
- (≥ 90% x (Ground Elev.-Water Level Elev))
  - Total Length: 50 ft.
  - Nominal Diameter: 18 in.
  - Wall Thickness: varies in.
  - Bottom Elevation: -38 ft., msl*

**Open Casing:**
- Perforated
- Screen
  - Total Length: 50 ft.
  - Nominal Diameter: 18 in.
  - Wall Thickness: varies in.
  - Bottom Elevation: -88 ft., msl*

**Open Hole:**
- Length: 3 ft.
- Diameter: 24 in.
- Bottom Elevation: -91 ft., msl*

- The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment report and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or,  
Bottom Elevation of Well Limit = (Water Elevation - Ground Elev. + Aquifer Thickness) / 4

**Example:** Estimated +2 ft. Water Level Elev. = Bottom Elevation of Well Limit = (2 - 18.5 ft) / 4 = -18.5 ft.

**Solid Casing Material:**
- Carbon Steel: compliant (check one or more): ANSI/AWWA C200  API Spec. 5L  ASTM A53  ASTM A139
  - And compliant with (check one or more): ASTM A242 (or A606)  Type E  Type S  Grade B  Other
- Stainless Steel: (check one): ASTM A409 (production wells)  ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one): Schedule 40  Schedule 80
- PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one): Schedule 40  Schedule 80  Schedule 120
- Thermoset Plastic: (check one):
  - Filament Wound Resin Pipe conforming to ASTM D2996
  - Centrifugally Cast Resin Pipe conforming to ASTM D2997
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Plastic Mortar Pressure Pipe conforming to AWWA C950
  - PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - FEP Fluorocarbon Tubing conforming to ASTM D3296

- 18" O.D. X .440" wall Solid PVC, Class 100, SDR 41, ASTM D-2441

**Open Casing Material:**
- Carbon Steel: compliant (check one or more): ANSI/AWWA C200  API Spec. 5L  ASTM A53  ASTM A139
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  - Glass Fiber Reinforced Plastic Mortar Pressure Pipe conforming to AWWA C950
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  - FEP Fluorocarbon Tubing conforming to ASTM D3296

- 18" O.D. X .440" wall Solid PVC, Class 100, SDR 41, ASTM D-2441

- Perforation 0.8 sq. ft/ft.
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION
☐ Fill in the most recent application form. (check www.hawaii.gov/dlrr/cwrm or call 587-0225 for updates)
☐ Fill every line in (both sides of application).
☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.
☐ Mark the proposed well location on: the appropriate USGS quad map, the TMK map, the photo and the schematic, and attach to the application.
☐ For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.
☐ Attach the original and 10 copies of the application form, maps, photo and schematic.
☐ Attach letters from OCCL and appropriate county agencies regarding items 21 to 23.
☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management
P. O. Box 621
Honolulu, HI 96809

DESCRIPTIONS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION
1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. ISLAND The island name that the well is located on.
4. TMK Tax Map Key number
5. Well operator’s information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumpage when the construction is completed.
6. Landowner’s information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION
7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. Construction type The construction type can be drilled, dug, shaft, or tunnel.
9. Battery Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes functions as a single source.

PROPOSED PUMP INSTALLATION
10. Proposed work The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission of a Well Completion Report Part II.
11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed (the proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. Method of flow measurement This is the proposed method the operator will be using to measure pumpage for reporting purposes.

PROPOSED SURVEYOR
14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it is necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write “deferred” in this space.

PROPOSED USE
15. Municipal Use is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term “domestic use”.
16. Domestic Use is any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.
17. Industrial Use is for uses such as cooling or processing water, etc.
18. Irrigation Use is for golf courses, agriculture, etc.
19. Military Use is water used by the military from military operated water supply systems.
20. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS
21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (http://www.hawaii.gov/dlrr/gis/maps/Luc_img or call 587-2823). If the well is not in a CD, then you may check not in a CD box. If the well site is in a CD you will need to then determine if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCL) of DLNR at 587-0377.
22. Special Management Area Permit (SMAP) To determine if an SMAP is necessary, on CD or not in a CD, the affected parcel must have been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHPD) or through an OESC Environmental Review, Special Management Area Permit, etc., check “yes” and attach any relevant documentation from SHPD. If the affected parcel(s) has not undergone SHPD review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

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<td>Licensed Well Driller</td>
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<td>13</td>
<td>Well Completion Report Part II to be returned to CWRM.</td>
<td>Licensed Pump Installer</td>
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NOTES:
A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.
B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).
C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box [redacted] Application must be accompanied by 10 copies and 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 [redacted]. For further information and updates to this application form, visit http://www.hawai.ogov/dlnr/cwrm.

WELL LOCATION INFORMATION

1. STATE WELL NO. (if already assigned) 1006-9
2. WELL NAME SW-2
3. ISLAND Oahu
4. TMK 9-1-026:030

The following must be attached before this application is accepted as complete:
• Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
• Property tax map, showing well location referenced to established property boundaries
• Photograph of the proposed well site
• A schematic diagram showing the well site, access road and proposed well infrastructure
• For dug wells, attach a grading plan with cross section profiles showing existing and finish grades

Covanta Honolulu Resource Recovery Venture
Glen Kashiwabara

5. WELL OPERATOR’S NAME/COMPANY
6. LANDOWNER’S NAME/CITY, COUNTY
Stephen Langham

Well Operator’s Mailing Address

6030 Hualani Street, Suite 300, Honolulu, HI 96819
Tel: 808.537.5100
Fax: 808.537.5120
Email: info@covanta.com

PROPOSED WELL CONSTRUCTION

7. Proposed Work
   • Construct New Well
   • Modify Existing Well
   • Abandon/Seal Well

8. Construction Type
   • Drilled
   • Dug
   • Shaft
   • Tunnel

9. Is this well part of a battery of wells? □ Yes □ No

PROPOSED PUMP INSTALLATION

10. Proposed Work
    • Install New Pump
    • Replace Pump

11. Proposed Pumping Rate, gpm (gallons per minute)
    2319 gpm

12. Proposed Amount of Withdrawal, gpd (gallons per day)
    3.34 million gallons per day (total withdrawal from 2 wells)

13. Method of flow measurement
    □ Flowmeter
    □ Other (explain)

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

15. Municipal (water systems serving greater than 25 individuals or 15 service connections)
16. Domestic
    Number of units to be served:

17. Industrial (describe)
Supply Well Pump for Energy from Waste Facility - Increase Flow Rate for Expansion of a 3rd Boiler. Cooling/Boiler

18. Irrigation (describe crop and no. of acres)

19. Military (describe)

20. Other (describe)

OTHER LEGAL REQUIREMENTS

If required, items 21 and 22 must be obtained before the Commission can legally issue a permit

21. Conservation District Use Permit (CDUP)
    □ Well is in Conservation District
        • Required, CDUP # [redacted] date approved
        • Not Required (attach documentation from OCGC)
        • I have not checked with OCGC about whether or not a CDUP is required. I understand that checking with OCGC prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit if it is issued.

    □ Well is not in Conservation District
        • I have not checked if well is in or out of Conservation District. I understand that checking if the well is in a Conservation District may expedite my review. I further understand that issues raised may delay or result in denial of the permit issuance, or revocation of the permit if it is issued.

22. Special Management Area Permit (SMA)
    □ Required, SMA # [redacted] date approved
    □ Not Required (attach documentation from applicable County agency)
    • I have not consulted with the County about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit if it is issued.

23. Historic Preservation Division (SHPD) of the Department of Land and Natural Resources
    • I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
    • I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit if it is issued. Additionally, the history of past land use is attached.

   Additional remarks, explanations, etc. (attach additional sheet if more space is needed) Proposed pump installation is not in an SMA area

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $500/day.

24. WELL DRILLER (Must be filled out if application is for Well Construction)
Licensee business name C-57 License No.
Licensee business name C-57/C-57a License No.

Signature Print Date

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)
Will be provided at the time the Contractor is Selected
Licensee business name C-57 License No.

Signature Print Date

WCPI Application Form 02/26/2007
PROPOSED WELL SECTION

(please attach schematic if different from diagram provided below)

Elevation at top of casing 12 ft., msl*

Hole Diameter: 24 in.

Minimum of 2½ Radius & 4" Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)

Ground Elevation: 12.83 ft., msl*

Solid Casing: (> 90% x (Ground Elev. - Water Level Elev.))

Total Length: 50 ft.

Nominal Diameter: 18 in.

Wall Thickness: varies in.

Bottom Elevation: -58 ft., msl*

Open Casing: Open

Perforated

Screen

Total Length: 50 ft.

Nominal Diameter: 18 in.

Wall Thickness: varies in.

Bottom Elevation: -58 ft., msl*

Note: Neither bentonite nor mud should be used in saturated zone during drilling.

Ground Elevation: 12.83 ft., msl*

Example: Estimated + 2 ft. Water Level Elev. Bottom Elevation of Well Limit = (2.5 x Water Level Elev.)

Solid Casing Material:

Carbon Steel: compliant with (check one or more):

- ANSI/AWWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139

And compliant with (check one or more):

- ASTM A242 (or A606)
- Type E
- Type S
- Grade B
- Other

Stainless Steel: (check one):

- ASTM A409 (production welds)
- ASTM A312 (monitor wells)

ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)

- Schedule 40
- Schedule 80

PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one):

- Schedule 40
- Schedule 80
- Schedule 120

Thermoset Plastic: (check one)

- Filament Wound Resin Pipe conforming to ASTM D2996
- Centrifu-gally Cast Resin Pipe conforming to ASTM D2997
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- Glass Fiber Reinforced Resin Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D2396
- FEP Fluorocarbon Tubing conforming to ASTM D2396

Open Casing Material:

Carbon Steel: compliant with (check one or more):

- ANSI/AWWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139

And compliant with (check one or more):

- ASTM A242 (or A606)
- Type E
- Type S
- Grade B
- Other

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- ASTM A312 (monitor wells)

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- Schedule 120

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- Filament Wound Resin Pipe conforming to ASTM D2996
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- Glass Fiber Reinforced Resin Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D2396
- FEP Fluorocarbon Tubing conforming to ASTM D2396

Grouting method:

- Positive displacement
- Other

* The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Elev. - 5 x Water Level Elev. /4)

Example: Estimated + 2 ft. Water Level Elev. Bottom Elevation of Well Limit = (2.5 x Water Level Elev.) = -18.5 ft.

Solid Construction and Pump Installation Standards:

To ensure that your as-built is in compliance with applicable standards.

18" O.D. X .440" wall
Solid PVC, Class 100, SDR 41, ASTM D-2441

Perforation: 08 sq. ft/ft.

WCPI Application Form 02/29/2007
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION
☐ Fill in the most recent application form.
  (check www.hawaii.gov/dlnr/cwrm or call 587-0225 for updates)
☐ Fill every line in (both sides of application).  
☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.
☐ Mark the proposed well location on: the appropriate USGS quadrat map, the TMK map, the photo and the schematic, and attach to the application.
☐ For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.
☐ Attach the original and 10 copies of the application form, maps, photo and schematic.
☐ Attach letters from OCC and appropriate county agencies regarding items 21 to 23.
☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:  
Commission on Water Resource Management  
P.O. Box 621  
Honolulu, HI 96809

INSTRUCTIONS FOR COMPLETING THE APPLICATION

DESCRIPTIONS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION
1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. ISLAND The island name that the well is located on.
4. TMK Tax Map Key number
5. Well operator’s information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumpage when the construction is completed.
6. Landowner’s information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION
7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. Construction type The construction type can be drilled, dug, shaft, or tunnel.
9. Battery Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes functions as a single source.

PROPOSED PUMP INSTALLATION
10. Proposed work The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission of a Well Completion Report Part II.
11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed (the proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. Method of flow measurement This is the proposed method the operator will be using to measure pumpage for reporting purposes.

PROPOSED SURVEYOR
14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it is necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write “deferred” in this space.

PROPOSED USE
15. Municipal Use is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term “domestic use”.
16. Domestic Use is any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.
17. Industrial Use is for use such as cooling or processing water, etc.
18. Irrigation Use is for golf courses, agriculture, etc.
19. Military Use is water used by the military from military operated water supply systems.
20. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS
21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (http://www.hawaii.gov/dbedt/gis/maps/dlir2.jpg or call 587-2833). If the well is not in a CD, then you may check out in a CD box. If the well site is in a CD you will need to then determine if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCCL) of DLNR at 587-0377.
22. Special Management Area Permit (SMAP) To determine if an SMAP is necessary, on Oahu, please check with the Office of Environmental Quality Control (OEQC) at 587-0377. Check with the Department of Land and Natural Resources Historic Preservation Division (SHDP) or through an Environmental Review if the parcel is part of an existing historic property (SHDP or through an Environmental Review). If the parcel has not undergone SHDP review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Please note: You are strongly advised to contact the SHDP to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHDP’s concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHDP, please call 587-0225.

SIGNATURES
24. Well Driller This section must be filled out completely for the Well Construction Permit application to be accepted as complete.
25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.
### COMMISSION ON WATER RESOURCE MANAGEMENT
### WELL CONSTRUCTION/PUMP INSTALLATION PERMIT PROCESS WORKSHEET

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Responsible Party</th>
<th>Legal Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ensure that if items 21 to 23 of the application are required, that they are obtained prior to applying for a permit. Otherwise, post-application comments obtained from these agencies may delay processing of your application.</td>
<td>Applicant</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Application for Well Construction (or modification) and/or Pump Installation (or replacement with larger capacity than existing pump - see note B below).</td>
<td>Licensed Well Driller (for Well Construction) and/or Licensed Pump Contractor (for Pump Installation) (See note C below)</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Issuance of Well Construction Permit to Well Driller (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies’ legal requirements. (See note A below)</td>
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**NOTES:**

A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.

B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).

C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
FIGURE 2

TMK Map

H-Power Application for Pump Installation Permit.

Legend

△ Well Location

Site Boundary

TMK Boundaries
Site Photographs of the Sources and Locations of Proposed End Uses

H-Power Application for Pump Installation Permit.
March 4, 2009

Mr. S. Samuel Joshi, PE, QEP
Manager, Environmental Engineering
Covanta Honolulu Resource Recovery Venture
c/o Covanta Energy Corporation

Dear Mr. Joshi:

Subject: Draft Environmental Impact Statement
H-Power Third Boiler Expansion Project
91-174 Hanua Street – Campbell Industrial Park
Tax Map Key 9-1-26: 30

This is in response to your request, received January 30, 2009, for comments concerning the Draft Environmental Impact Statement (DEIS) for the subject project.

The project site, as well as the adjoining parcels to be used for construction lay-down (Tax Map Key 9-1-26: 33 and 34), are not located in the Special Management Area (SMA) or the shoreline setback, and will not require an SMA permit or shoreline setback variance.

Please note that the project does not require a modification to Conditional Use Permit (CUP) No. 89/CUP1-17, as stated in Section 3.0, “Required Approvals and Permits,” of the DEIS. Since the H-Power facility is now owned and operated by the City, it is thus considered to be a “public use and structure” for purposes of the Land Use Ordinance (LUO); and, as such is a permitted use in all zoning districts. When the CUP had originally been issued, the use was then classified as a "utility installation, Type B," since at that time it had been privately owned and operated.

The project will need to obtain an approved zoning waiver, pursuant to LUO Section 21-2.130(a)(1), for any portion of the project which will exceed the maximum 60-foot zoning height for the site.
Mr. S. Samuel Joshi
March 4, 2009
Page 2

Thank you for the opportunity to comment on the DEIS. Please contact Blake La Benz of our staff at [redacted] for any questions.

Very truly yours,

[Signature]

David K. Tanoue, Director
Department of Planning and Permitting

DKT:fm
cc: Department of Environmental Services
    Office of Environmental Quality Control
    AMEC Earth & Environmental, Inc.

G:\LandUse\PoseWorking\Directory\Blake\Correspondence\09ELOG-234.doc
March 16, 2009

Mr. S. Samuel Joshi
Covanta Energy Corporation

Dear Mr. Joshi:

SUBJECT: 6E-8 Historic Preservation Review—
DRAFT Environmental Impact Statement (DEIS)—
H-POWER Expansion Project,
Hono‘uli‘uli Ahupua‘a, ‘Ewa District, O‘ahu, Hawai‘i
TMK: (1) 9-026-030, 033, 034

Thank you for the opportunity to review this DRAFT Environmental Impact Statement, which we received via CD on January 28, 2009.

The H-POWER site is located in the Campbell Industrial Park at Kālaeloa [formerly called Barbers Point or Barber’s Point]. The H-POWER facility, which began operation in May 1990, is operated by Covanta Honolulu Resource Recovery Venture (CHRRV) on behalf of the City and County of Honolulu.

This project will entail the expansion of the current H-POWER facility onto parcels 33 and 34 adjacent to the current facility. They are currently vacant. A garden for endemic plants and the site for the reburial of a single human burial previously discovered when the initial facility was built in the 1980’s area present on the site. Because of the possibility that sinkholes prevalent in this portion of ‘Ewa could contain historic properties, an archaeological and cultural impact assessment study in support of the proposed expansion on 24.635 acres of industrially zoned land was undertaken to determine the presence or absence of historic properties (ARCHAEOLOGICAL AND CULTURAL IMPACT ASSESSMENTS FOR THE PROPOSED H-POWER EXPANSION PROJECT, HONO‘ULI‘ULI AHUPUA‘A, ‘EWA DISTRICT, ISLAND OF O‘AHU, TMK: (1) 9-1-026:30, 33, AND 34[McCoy and Clark, September 2008]).

There is evidence that large portions of Parcels 33 and 34 have been grubbed and graded. Clearing may have occurred on more than one occasion. Aerial photographs suggest that the land clearing project undertaken by Campbell Estate in the early 1960s on Parcel 30 and documented during the archaeological reconnaissance survey in 1983 also included Parcels 33 and 34.

No historic properties were recorded during this archaeological assessment; however, it is recommended that precautionary monitoring be performed during any ground disturbing activities. We find that there are no historic properties affected by this project.

Please call Wendy Tolleson at (number redacted) if there are any questions or concerns regarding this letter.
Aloha,

Nancy A. McMahon (Deputy SHPO)
State Historic Preservation Officer

CC:

Mr. Stephen Langham
Environmental Services Refuse Division, H_Power

ENV Director
City and County of Honolulu
Department of Environmental Services

Dr. Russell Okoji
AMEC Earth & Environmental, Inc.
STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 1609. Application must be accompanied by 10 copies and 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 808-587-1262. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

WELL LOCATION INFORMATION

1. STATE WELL NO. (if already assigned)  
2. WELL NAME  
3. ISLAND  
4. TMK  
5. Detail of Well site  

The following must be attached before this application is accepted:  
• Property tax map, showing well location referenced to established property boundaries  
• Photograph of the proposed well site  
• A schematic diagram showing the well site, access road and proposed well infrastructure

PROPOSED WELL CONSTRUCTION

7. Proposed Work  

☐ Construct New Well  
☐ Modify Existing Well  
☐ Abandon/Seal Well

8. Construction Type  

☐ Drilled  
☐ Dug  
☐ Shaft  
☐ Tunnel

10. Proposed Work  

☐ Install New Pump  
☐ Replace Pump  

11. Proposed Pumping Rate, gpm  

2319 gpm

12. Proposed Amount of Withdrawal, gdpm  

3.34 million gallons per day (total withdrawal from 2 wells)

13. Method of flow measurement  

☐ Flowmeter  
☐ Other (explain)

9. Is this well part of a battery of wells?  

☐ Yes  
☐ No

PROPOSED PUMP INSTALLATION

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

OTHER LEGAL REQUIREMENTS

If required, Items 21. and 22. must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)  

☐ Well is in Conservation District  
☐ Required, CDUP #  
☐ Not Required (attach documentation from OCCL)  
☐ I have not checked with OCCL about whether or not a CDUP is required. I understand that checking with OCCL prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

22. Special Management Area Permit (SMAP)  

☐ Required, SMAP #  
☐ Not Required (attach documentation from applicable County agency)  
☐ I have not checked with the county about whether or not an SMAP Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $5000/day.

Licensee business name  

C-57 License No.

Signature  
Print  
Date

Licensee business name  

C-57C-57a License No.

Signature  
Print  
Date

WPCR Application Form 02/26/2007

For Construction:   Commission on Water Resource Management  
2009 Jun 12 PM 3:49
**PROPOSED WELL SECTION** (Please attach schematic if different from diagram provided below)

<table>
<thead>
<tr>
<th>Hole Diameter: 24 in.</th>
<th>Total Length: 50 ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cement Grout:</strong> 47 ft. (min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)</td>
<td></td>
</tr>
<tr>
<td><strong>Annular space between hole and casing (1.5&quot; for positive displacement, 3&quot; for other methods).</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Rock or Gravel Packing:</strong> 53 ft.</td>
<td></td>
</tr>
<tr>
<td><strong>Material:</strong></td>
<td></td>
</tr>
<tr>
<td>Crushed Basalt</td>
<td></td>
</tr>
<tr>
<td>Rounded Gravel</td>
<td></td>
</tr>
<tr>
<td><strong>Estimated Water Level Elevation:</strong> ft. msl*</td>
<td></td>
</tr>
</tbody>
</table>

* The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or,  
Bottom Elevation of Well Limit = (Water Elevation + 4L) / 4  
Example: Estimated + 2 ft. Water Level Elev.  
Bottom Elevation of Well Limit = (2 + 4L) / 4 = -18.5 ft.

**Solid Casing Material:**
- **Carbon Steel:** compliant with (check one or more): ANSI/AWWA C200, API Spec. 5L, ASTM A53, ASTM A139,  
  And compliant with (check one or more): ASTM A242 (or A200), Type E, Type S, Grade B, Other  
- **Stainless Steel:** (check one): ASTM A409 (production wells), ASTM A312 (monitor wells)  
- **AB8 Plastic conforming to ASTM F480 and ASTM D1527:** (check one) Schedule 40 Schedule 80 Schedule 120  
- **PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241):** (check one): Schedule 40 Schedule 80 Schedule 120  
- **Thermoset Plastic:** (check one)  
  - Filament Wound Resin Pipe conforming to ASTM D2996  
  - Centrifugally Cast Resin Pipe conforming to ASTM D2997  
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517  
  - Glass Fiber Reinforced Pressure Pipe conforming to AWWA C950  
  - PTFE Fluorocarbon Tubing conforming to ASTM D3296  
  - FEP Fluorocarbon Tubing conforming to ASTM D3296

**Open Casing Material:**
- **Carbon Steel:** compliant with (check one or more): ANSI/AWWA C200, API Spec. 5L, ASTM A53, ASTM A139,  
  And compliant with (check one or more): ASTM A242 (or A200), Type E, Type S, Grade B, Other  
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- **AB8 Plastic conforming to ASTM F480 and ASTM D1527:** (check one) Schedule 40 Schedule 80 Schedule 120  
- **PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241):** (check one): Schedule 40 Schedule 80 Schedule 120  
- **Thermoset Plastic:** (check one)  
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  - PTFE Fluorocarbon Tubing conforming to ASTM D3296  
  - FEP Fluorocarbon Tubing conforming to ASTM D3296

**HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS**

To ensure that your as-built is in compliance with applicable standards.

**Solid Casing:** (at least 90% x [Ground Elev-Water Level Elev])
- Total Length: 50 ft.
- Nominal Diameter: 18 in.
- Wall Thickness: varies in.
- Bottom Elevation: -38 ft. msl*

**Open Casing:**
- **Screen:** Perforated
- **Perforation:** .08 sq. ft./ft.
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION
☐ Fill in the most recent application form.
☐ Fill every line in (both sides of application).
☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.
☐ Mark the proposed well location on: the appropriate USGS quad map, the TMK map, the photo, and the schematic, and attach to the application.
☐ For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.
☐ Attach the original and 10 copies of the application form, maps, photo and schematic.
☐ Attach letters from OCCL and appropriate county agencies regarding items 21 to 23.
☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

DESCRIPTIONS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION
1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. ISLAND The island name that the well is located on.
4. TMK Tax Map Key number
5. Well operator’s information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumpage when the construction is completed.
6. Landowner’s information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION
7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. Construction type The construction type can be drilled, auger shaft, or tunnel.
9. Battery Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes functions as a single source.

PROPOSED PUMP INSTALLATION
10. Proposed work The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission of a Well Completion Report Part II.
11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed the (proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. Method of flow measurement This is the proposed method the operator will be using to measure pumpage for reporting purposes.

PROPOSED SURVEYOR
14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it is necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write “deferred” in this space.

PROPOSED USE
15. Municipal Use is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term “domestic use”.
16. Domestic Use is any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.
17. Industrial Use is for uses such as cooling or processing water, etc.
18. Irrigation Use is for golf courses, agriculture, etc.
19. Military Use is water used by the military from military operated water supply systems.
20. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS
21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (http://www.hawaii.gov/dbedtlgis/maps/slud.jpg or call 587-2833). If the well is not in a CD, then you may check not in a CD.
22. Special Management Area Permit (SMA) To determine if an SMA is necessary, on Oahu call...
23. Historic Preservation review If the parcel(s) affected by construction (well location/access road/infrastructure for well) has been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHDP) or through an OSOC Environmental Review, Special Management Area Permit, etc., check "yes" and attach any relevant documentation from SHDP. If the affected parcel(s) has not undergone SHDP review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Please note: You are strongly advised to contact the SHDP to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHDP’s concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHDP, please call...

SIGNATURES
24. Well Driller This section must be filled out completely for the Well Construction Permit application to be accepted as complete.
25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.

WCPI Permit Instructions and Process Worksheets 2/26/2007
## PERMIT PROCESS WORKSHEET

### Step | Description | Responsible Party | Legal Deadline
---|---|---|---
1 | Ensure that if items 21 to 23 of the application are required, that they are obtained prior to applying for a permit. Otherwise, post-application comments obtained from these agencies may delay processing of your application. | Applicant | None
2 | Application for Well Construction (or modification) and/or Pump Installation (or replacement with larger capacity than existing pump - see note B below). | Licensed Well Driller for Well Construction and/or Licensed Pump Contractor for Pump Installation (See note C below) | None
3 | Issuance of Well Construction Permit to Well Driller (if applied for). | CWRM | Within 90 days of acceptance of completed application & contingent upon other agencies' legal requirements. (See note A below)
4 | Issuance of Pump Installation Permit to Pump Installer (if applied for). | CWRM | Within 90 days of acceptance of completed application & contingent upon other agencies' legal requirements. (See note A below)
5 | Execute/Sign Permit. | Licensed Well Driller or Licensed Pump Installer | Before work activity begins.
6 | Start of Work Notice. | Licensed Well Driller or Licensed Pump Installer | 2 weeks prior to beginning of work activity.
7 | Post copy of permit at the work site. | Licensed Well Driller or Licensed Pump Installer | During entire period of work activity at the site
8 | Construction of well. Note: a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work. b) If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e. go back to step 1 above). | Licensed Well Driller | Within 2 years of issuance of Well Construction Permit.
9 | Installation of a temporary test pump that can adequately conduct a step-drawdown test (if proposed pump>70 gpm). | Licensed Well Driller or Licensed Pump Installer | Within 2 years of issuance of Well Construction Permit.
10 | Installation of permanent pump. | Licensed Pump Installer | Within 2 years of issuance of Pump Installation Permit.
11 | Application for permit extension (if required). | None | None
12 | Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM. | Licensed Well Driller | Within 60 days of completion of Well Construction (the date that ALL aspects of Well Completion Report Part I can be filled in).
13 | Well Completion Report Part II to be returned to CWRM. | Licensed Pump Installer | Within 60 days of completion of Pump Installation (the date that ALL aspects of Well Completion Report Part II can be filled in).
14 | Acceptance of Well Completion Report Part I, Elevation Survey. | CWRM | None
15 | Issuance of Certificate of Well Construction Completion to Landowner. | CWRM | None
16 | Acceptance of Well Completion Report Part II. | CWRM | None
17 | Issuance of Certificate of Pump Installation Completion to Landowner. | CWRM | None
18 | Pumpage may commence, Water Use Reporting required. | Well Operator | Monthly recording.
19 | Abandonment (initiated in Step 2 of process) | Landowner | Until well sealed.

### NOTES
A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.
B. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.

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WCPI Permit Instructions and Process Worksheets 2/26/2007
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 10 copies and 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 587-6225. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/hwrm.

WELL LOCATION INFORMATION
1. STATE WELL NO. (if already assigned) 1808-10
2. WELL NAME SW-2
3. ISLAND Oahu
4. TMK
5. CONTRACTOR
6. LANDOWNER'S NAME/COMPANY Covanta Honolulu Resource Recovery Venture
7. Well Operator's Contact Glen Kashiwabara
8. City and County of Honolulu
9. Landowner's Contact Stephen Langham

PROPOSED WELL CONSTRUCTION
7. Proposed Work
   - Construct New Well
   - Modify Existing Well
   - Abandon/Seal Well
8. Construction Type
   - Drilled
   - Dug
   - Shaft
   - Tunnel
9. Is this well part of a battery of wells? Yes

PROPOSED PUMP INSTALLATION
10. Proposed Work
    - Install New Pump
    - Replace Pump
11. Proposed Pumping Rate, gpm (gallons per minute)
    - Flowmeter
    - Other
12. Proposed Amount of Withdrawal, gpd (gallons per day)
13. Method of flow measurement
    - Flowmeter
    - Other (explain)
14. Proposed Pump installation is not in an SMA area

OTHER LEGAL REQUIREMENTS
21. Conservation District Use Permit (CDUP)
    - Well is in Conservation District
      - Required, CDUP 
        - date approved
      - Not Required (attach documentation from OCCL)
    - I have not checked with the county about whether or not a CDUP is required. I understand that checking with OCCL prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.
22. Special Management Area Permit (SMAP)
    - Required, SMA 
      - date approved
    - I have not checked with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.
23. Historic Preservation District (HiPD) of the Department of Land and Natural Resources
    - I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached all applicable documentation from the HPD.
    - I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued. Additionally, the history of past land use is attached.

Additional remarks, explanations, etc. (attach additional sheet if more space is needed) Proposed pump installation is not in an SMA area

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the issue is brought to compliance, and any work done while the permit is in suspension may result in fines of up to $5000/day.

WELL DRILLER
24. Licensee business name C-57 License No.
    Licensee Print Date

PUMP INSTALLER
25. Licensee business name C-512-C-57a License No.
    Licensee Print Date

For Official Use Only:

WCPJ Application Form 02/26/2007
**PROPOSED WELL SECTION** (Please attach schematic if different from diagram provided below)

**Nominal Diameter:**
- 12 in.

**Bottom Elevation:**
- 12.83 ft., msl

**Grouting method:**
- Positive displacement
- Other

**Estimated Water Level Elev:**
- ft.

**Cement Grout:**
- 47 ft. (min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)

**Rock or Gravel Packing:**
- 53 ft.

**Material:**
- Crushed Basalt
- Round Basalt

**Water Level Elev:**
- ft., msl

**Open Casing:**
- Perforated
- Screen

**Solid Casing:**
- (≥ 90% x (Ground Elev.-Water Level Elev))

**HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS**

*The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State. For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Level Elev. + 0.01 x Ground Elev.-Water Level Elev) / 4

Example: Estimated + 2 ft. Water Level Elev. + Bottom Elevation of Well Limit = (2 - 0.01 x 5.5 ft., msl) / 4 = 18.5 ft.

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more):
  - API Spec. 5L
  - ASTM A35
  - ASTM A139

**Stainless Steel**: (check one):
- ASTM A409 (production well)
- ASTM A312 (monitor well)

**ABS Plastic conforming to ASTM F480 and ASTM D1527**: (check one):
- Schedule 40
- Schedule 80

**PVC Plastic conforming to ASTM F490 and ASTM D1785 or ASTM D2241**: (check one):
- Schedule 40
- Schedule 80
- Schedule 120

**Thermoset Plastic**: (check one):
- Filament Wound Resin Pipe conforming to ASTM D2996
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- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296

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- Carbon Steel: compliant with (check one or more):
  - API Spec. 5L
  - ASTM A35
  - ASTM A139

**Stainless Steel**: (check one):
- Type E
- Type S
- Type B
- Other

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- FEP Fluorocarbon Tubing conforming to ASTM D3296

**Open Hole:**
- Length: 5 ft.
- Diameter: 24 in.
- Bottom Elevation: -93 ft., msl

**Total Depth:**
- 105 ft.

**HAWAII WELL INSTALLATION:**

18" O.D. X .440" wall
Solid PVC, Class 100, SDR 41, ASTM D-2441

**Perforation**: 0.8 sq. ft./ft.
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

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☐ Fill every line in (both sides of application).
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Send the application and maps, copies, and the filing fee to:

Commission on Water Resource Management
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Honolulu, HI 96809

DESCRIPTIONS FOR LINES ON APPLICATION

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4. TMK Tax Map Key number
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6. Landowner’s information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION
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PROPOSED PUMP INSTALLATION
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11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed (the proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. Method of flow measurement This is the proposed method the operator will be using to measure pumping for reporting purposes.

PROPOSED SURVEYOR
14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it is necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write “deferred” in this space.

PROPOSED USE
15. Municipal Use is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term “domestic use”.
16. Domestic Use is any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.
17. Industrial Use is for uses such as cooling or processing water, etc.
18. Irrigation Use is for golf courses, agriculture, etc.
19. Military Use is water used by the military from military operated water supply systems.
20. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS
21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (http://www.hawaii.gov/dbedt/gis/maps/luldg.htm or call 587-2332). If the well is not in a CD, then you may check not in a CD box. If the well site is in a CD you will need to then determine if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCL) of DLNR at 587-3177.
22. Special Management Area Permit (SMAP) To determine if a SMAP is necessary, or
23. Historic Preservation review If the parcel(s) affected by construction (well location/access road/infrastructure for well) has been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHPD or through an OEQC Environmental Review, Special Management Area Permit, etc.), check “yes” and attach any relevant documentation from SHPD. If the affected parcel(s) has not undergone SHPD review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road, and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Please note: You are strongly advised to contact the SHPD to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHPD’s concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHPD, please call...

SIGNATURES
24. Well Driller This section must be filled out completely for the Well Construction Permit application to be accepted as complete.
25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.
<table>
<thead>
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<th>Step</th>
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<td>Ensure that if items 21 to 23 of the application are required, that they are obtained prior to applying for a permit. Otherwise, post-application comments obtained from these agencies may delay processing of your application.</td>
<td>Applicant</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Application for Well Construction (or modification) and/or Pump Installation (or replacement with larger capacity than existing pump - see note B below).</td>
<td>Licensed Well Driller (for Well Construction) and/or Licensed Pump Contractor (for Pump Installation) (See note C below)</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Issuance of Well Construction Permit to Well Driller (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. (See note A below)</td>
</tr>
<tr>
<td>4</td>
<td>Issuance of Pump Installation Permit to Pump Installer (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. (See note A below)</td>
</tr>
<tr>
<td>5</td>
<td>Execute/Sign Permit.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Before work activity begins.</td>
</tr>
<tr>
<td>6</td>
<td>Start of Work Notice.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>2 weeks prior to beginning of work activity.</td>
</tr>
<tr>
<td>7</td>
<td>Post copy of permit at the work site.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>During entire period of work activity at the site.</td>
</tr>
<tr>
<td>8</td>
<td>Construction of well. Note: a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work. b) If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e. go back to step 1 above).</td>
<td>Licensed Well Driller</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>9</td>
<td>Installation of a temporary test pump that can adequately conduct a step-drawdown test (if proposed pump&gt;70 gpm).</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>10</td>
<td>Installation of permanent pump.</td>
<td>Licensed Pump Installer</td>
<td>Within 2 years of issuance of Pump Installation Permit.</td>
</tr>
<tr>
<td>11</td>
<td>Application for permit extension (if required).</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>12</td>
<td>Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM.</td>
<td>Licensed Well Driller</td>
<td>Within 60 days of completion of Well Construction (the date that ALL aspects of Well Completion Report Part I can be filled in).</td>
</tr>
<tr>
<td>13</td>
<td>Well Completion Report Part II to be returned to CWRM.</td>
<td>Licensed Pump Installer</td>
<td>Within 60 days of completion of Pump Installation (the date that ALL aspects of Well Completion Report Part II can be filled in).</td>
</tr>
<tr>
<td>14</td>
<td>Acceptance of Well Completion Report Part I, Elevation Survey.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>15</td>
<td>Issuance of Certificate of Well Construction Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance of Well Completion Report Part II.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>17</td>
<td>Issuance of Certificate of Pump Installation Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>18</td>
<td>Pumpage may commence, Water Use Reporting required.</td>
<td>Well Operator</td>
<td>Monthly recording.</td>
</tr>
<tr>
<td>19</td>
<td>Abandonment (initiated in Step 2 of process).</td>
<td>Landowner</td>
<td>Until well sealed.</td>
</tr>
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</table>

NOTES:
A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.
B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).
C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
FIGURE 2

TMK Map
H-Power Application for Pump Installation Permit.
Site Photographs of the Sources and Locations of Proposed End Uses

H-Power Application for Pump Installation Permit.
March 4, 2009

Mr. S. Samuel Joshi, PE, QEP
Manager, Environmental Engineering
Covanta Honolulu Resource Recovery Venture
c/o Covanta Energy Corporation

Dear Mr. Joshi:

Subject: Draft Environmental Impact Statement
H-Power Third Boiler Expansion Project
91-174 Hanua Street – Campbell Industrial Park
Tax Map Key 9-1-26: 30

This is in response to your request, received January 30, 2009, for comments concerning the Draft Environmental Impact Statement (DEIS) for the subject project.

The project site, as well as the adjoining parcels to be used for construction lay-down (Tax Map Key 9-1-26: 33 and 34), are not located in the Special Management Area (SMA) or the shoreline setback, and will not require an SMA permit or shoreline setback variance.

Please note that the project does not require a modification to Conditional Use Permit (CUP) No. 89/CUP1-17, as stated in Section 3.0, “Required Approvals and Permits,” of the DEIS. Since the H-Power facility is now owned and operated by the City, it is thus considered to be a “public use and structure” for purposes of the Land Use Ordinance (Luo); and, as such is a permitted use in all zoning districts. When the CUP had originally been issued, the use was then classified as a “utility installation, Type B,” since at that time it had been privately owned and operated.

The project will need to obtain an approved zoning waiver, pursuant to Luo Section 21-2.130(a)(1), for any portion of the project which will exceed the maximum 60-foot zoning height for the site.
Thank you for the opportunity to comment on the DEIS. Please contact Blake La Benz of our staff at [redacted] for any questions.

Very truly yours,

David K. Tanoue, Director
Department of Planning and Permitting

DKT:fm
cc:  Department of Environmental Services
     Office of Environmental Quality Control
     AMEC Earth & Environmental, Inc.

G:\LandUse\PosseWorkingDirectory\blake\Correspondence\09ELOG-234.doc
Dear Mr. Joshi:

SUBJECT: 6E-8 Historic Preservation Review—
DRAFT Environmental Impact Statement (DEIS)—
H-POWER Expansion Project,
Hono‘uli‘uli Ahupua‘a, 'Ewa District, O'ahu, Hawai‘i
TMK: (1) 9-026-030, 033, 034

Thank you for the opportunity to review this DRAFT Environmental Impact Statement, which we received via CD on January 28, 2009.

The H-POWER site is located in the Campbell Industrial Park at Kalaeloa [formerly called Barbers Point or Barber’s Point]. The H-POWER facility, which began operation in May 1990, is operated by Covanta Honolulu Resource Recovery Venture (CHRRV) on behalf of the City and County of Honolulu.

This project will entail the expansion of the current H-POWER facility onto parcels 33 and 34 adjacent to the current facility. They are currently vacant. A garden for endemic plants and the site for the reburial of a single human burial previously discovered when the initial facility was built in the 1980’s area present on the site. Because of the possibility that sinkholes prevalent in this portion of ‘Ewa could contain historic properties, an archaeological and cultural impact assessment study in support of the proposed expansion on 24.635 acres of industrially zoned land was undertaken to determine the presence or absence of historic properties (ARCHAEOLOGICAL AND CULTURAL IMPACT ASSESSMENTS FOR THE PROPOSED H-POWER EXPANSION PROJECT, HONO‘ULI‘ULI AHUPUA‘A, 'EWA DISTRICT, ISLAND OF O‘AHU, TMK: (1) 9-1-026:30, 33, AND 34 [McCoy and Clark, September 2008]).

There is evidence that large portions of Parcels 33 and 34 have been grubbed and graded. Clearing may have occurred on more than one occasion. Aerial photographs suggest that the land clearing project undertaken by Campbell Estate in the early 1960s on Parcel 30 and documented during the archaeological reconnaissance survey in 1983 also included Parcels 33 and 34.

No historic properties were recorded during this archaeological assessment; however, it is recommended that precautionary monitoring be performed during any ground disturbing activities. We find that there are no historic properties affected by this project.

Please call Wendy Tolleson at [redacted] if there are any questions or concerns regarding this letter.
Aloha,

Nancy A. McMahon (Deputy SHPO)
State Historic Preservation Officer

CC:

Mr. Stephen Langham
Environmental Services Refuse Division, H_POWER

Dr. Russell Okoji
AMEC Earth & Environmental, Inc.
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

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 10 copies and a non-refundable filing fee of $125.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 808-587-5454. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

WELL LOCATION INFORMATION
1. STATE WELL NO. (if already assigned) 1806-09
2. WELL NAME SW-1
3. ISLAND Oahu
4. TMLK
9: 01 026 030

The following must be attached before this application is accepted as complete:
• Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
• Property tax map, showing well location referenced to established property boundaries
• Photograph of the proposed well site
• A schematic diagram showing the well site, access road and proposed well infrastructure

For your use, attach a posting plan with cross section profiles showing existing and final grades.

5. WELL OPERATOR’S NAME/COMPANY Covanta Honolulu Resource Recovery Venture Glen Kashiwabara
6. LANDOWNER’S NAME/COMPANY City and County of Honolulu Stephen Langham

Well Operator’s Mailing Address
Landowner’s Mailing Address

PROPOSED WELL CONSTRUCTION
7. Proposed Work

- Construct New Well
- Modify Existing Well
- Abandon/Seal Well

8. Construction Type

- Drilled
- Dug
- Shaft
- Tunnel

PROPOSED PUMP INSTALLATION
10. Proposed Work

- Construct New Pump
- Replace Pump

11. Proposed Pumping Rate, gpm

- 2319 gpm

12. Proposed Amount of Withdrawal, gpd (gallons per day)

- 3.34 million gallons per day (total withdrawal from 2 wells)

13. Method of flow measurement

- Flowmeter
- Other (explain)

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

PROPOSED USE

☐ 15. Municipal (water systems serving greater than 25 individuals or 15 service connections)

☐ 16. Domestic

☐ 17. Industrial (describe)

☐ 18. Irrigation (describe crop and no. of acres)

☐ 19. Military (describe)

☐ 20. Other (describe)

OTHER LEGAL REQUIREMENTS

If required, Items 21 and 22 must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)

☐ Well is in Conservation District

☐ Required, CDUP # date approved

☐ Not Required (attach documentation from OCLL)

☐ I have not checked with OCLL, whether or not a CDUP is required. I understand that checking with OCLL prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

☐ Well is not in Conservation District

☐ I have not checked if well is in or out of Conservation District. I understand that checking if the well is in a Conservation District may expedite my review. I further understand that issues raised may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

22. Special Management Area Permit (SMAP)

☐ Required, SMA # date approved

☐ Not Required (attach documentation from applicable County agency)

☐ I have not checked with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources

☐ I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.

☐ I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued. Additionally, the history of past land use is attached.

Additional remarks, explanations, etc. (attach additional sheet if more space is needed) Proposed pump installation is not in an SMA area

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge.

Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $500.00/day.

24. WELL DRILLER (Must be filled out if application is for Well Construction)

Licensee business name C-57 License No.

Signature Print Date

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)

Licensee business name C-571C-57a License No.

Signature Print Date

WCPI Application Form 02/26/2007
PROPOSED WELL SECTION

(Please attach schematic if different from diagram provided below)

- Minimum of 2' Radius & 4' Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)
- Hole Diameter: 24 in.
- Ground Elevation: 10.17 ft., msl*
- Open Hole: Length: 3 ft., Diameter: 24 in., Bottom Elevation: -91 ft., msl*
- Solid Casing: (≥ 90% x (Ground Elev.-Water Level Elev))
  - Total Length: 50 ft.
  - Nominal Diameter: 18 in.
  - Wall Thickness: varies in.
  - Bottom Elevation: -88 ft., msl*
- PVC Plastic conforming to ASTM F480 and ASTM D1785 or ASTM D2241: (check one): Open
  - Material: Crushed Basalt
  - Rounded Gravel
- Steel: compliant
  - Diameter: ____ in.
  - Length: ft.
  - Thickness: ________in.

- Example: Estimated + 2 ft. Water Level Elev. Bottom Elevation of Well Limit = (2 - 3 ft, Water Level Elev
  Example: Estimated + 2 ft. Water Level Elev. Bottom Elevation of Well Limit = (2 - 10) ft. = 10 ft.

Solid Casing Material:
- Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
  And compliant with (check one or more): □ ASTM A242 (or A606) □ Type E □ Type S □ Grade B □ Other
- Stainless Steel: (check one): □ ASTM A409 (production wells) □ ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one) □ Schedule 40 □ Schedule 80
  □ Schedule 120
- Thermoset Plastic: (check one):
  □ Filament Wound Resin Pipe conforming to ASTM D2996
  □ Centrifugally Cast Resin Pipe conforming to ASTM D2997
  □ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  □ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  □ PTFE-Fluorocarbon Tubing conforming to ASTM D3296
  □ FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material:
- Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
  And compliant with (check one or more): □ ASTM A242 (or A606) □ Type E □ Type S □ Grade B □ Other
- Stainless Steel: (check one): □ ASTM A409 (production wells) □ ASTM A312 (monitor wells)
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  □ Filament Wound Resin Pipe conforming to ASTM D2996
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  □ FEP Fluorocarbon Tubing conforming to ASTM D3296

* The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basalt Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or,
Bottom Elevation of Well Limit = (Water Elevation - 0.25 x Ground Water Level Elevation)
Example: Estimated + 2 ft. Water Level Elev. Bottom Elevation of Well Limit = (2 - 0.25 x (10.17)) = -10.5 ft.

Solid Well Construction Material:
- Reinforced Resin
- Reinforced Resin
- Reinforced Resin
- Reinforced Resin
- Reinforced Resin

PUMP INSTALLATION STANDARDS

Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to ensure that your as-built is in compliance with applicable standards.

PROPOSED Well

Minimum of 2' Radius & 4' Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)

Grouting method: [ ] Positive displacement [ ] Other

Annular space between hole and casing (1.5" for positive displacement, 3" for other methods):
3 in.

Estimated Water Level Elevation:
--- ft., msl*

Grouting:
- Cement Grout: 47 ft.
  (min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)

Rock or Gravel Packing:
- Material: [ ] Crushed Basalt
  [ ] Rounded Gravel

- Total Depth 103 ft.
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION
☐ Fill in the most recent application form.
☐ Fill every line in (both sides of application).
☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.
☐ Mark the proposed well location on the appropriate USGS quad map, the TMK map, the photo and the schematic, and attach to the application.
☐ For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.
☐ Attach the original and 10 copies of the application form, maps, photo and schematic.
☐ Attach letters from OCCL and appropriate county agencies regarding items 21 to 23.
☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

DESCRIPTIONS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION
1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. ISLAND The island name that the well is located on.
4. TMK Tax Map Key number
5. Well operator's information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumping when the construction is completed.
6. Landowner’s information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION
7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. Construction type The construction type can be drilled, dug, shaft, or tunnel.
9. Battery Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes functions as a single source.

PROPOSED PUMP INSTALLATION
10. Proposed work The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission of a Well Completion Report Part II.
11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed (the proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. Method of flow measurement This is the proposed method the operator will be using to measure pumping rate for reporting purposes.

PROPOSED SURVEYOR
14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write “deferred” in this space.

PROPOSED USE
15. Municipal Use is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term “domestic use”.
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OTHER LEGAL REQUIREMENTS
21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (http://www.hawaii.gov/dlnr/cwrm/maps/land-eng or call 587-2813). If the well is not in a CD, then you may check not in a CD box. If the well site is in a CD you will need to then determine if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCL) of DLNR at 587-0377.
22. Special Management Area Permit (SMAP) To determine if an SMAP is necessary,
23. Historic Preservation review If the parcel(s) affected by construction (well location/access road/infrastructure for well) has been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHPD) or through an OEQC Environmental Review, Special Management Area Permit, etc., check "yes" and attach any relevant documentation from SHPD. If the affected parcel(s) has not undergone SHPD review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Please note: You are strongly advised to contact the SHPD to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHPD’s concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHPD, please call [phone number].

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<td>Application for Well Construction (or modification) and/or Pump Installation (or replacement with larger capacity than existing pump - see note B below).</td>
<td>Licensed Well Driller (for Well Construction) and/or Licensed Pump Contractor (for Pump Installation) (See note C below)</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Issuance of Well Construction Permit to Well Driller (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies’ legal requirements. (See note A below)</td>
</tr>
<tr>
<td>4</td>
<td>Issuance of Pump Installation Permit to Pump Installer (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies’ legal requirements. (See note A below)</td>
</tr>
<tr>
<td>5</td>
<td>Execute/Sign Permit.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Before work activity begins.</td>
</tr>
<tr>
<td>6</td>
<td>Start of Work Notice.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>2 weeks prior to beginning of work activity.</td>
</tr>
<tr>
<td>7</td>
<td>Post copy of permit at the work site.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>During entire period of work activity at the site.</td>
</tr>
</tbody>
</table>
| 8    | Construction of well. Note:  
   a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work.  
   b) If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e. go back to step 1 above). | Licensed Well Driller | Within 2 years of issuance of Well Construction Permit. |
| 9    | Installation of a temporary test pump that can adequately conduct a step-drawdown test (if proposed pump>70 gpm). | Licensed Well Driller or Licensed Pump Installer | Within 2 years of issuance of Well Construction Permit. |
| 10   | Installation of permanent pump. | Licensed Pump Installer | Within 2 years of issuance of Pump Installation Permit. |
| 11   | Application for permit extension (if required). | None | None |
| 12   | Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM. | Licensed Well Driller | Within 60 days of completion of Well Construction (the date that ALL aspects of Well Completion Report Part I can be filed in). |
| 13   | Well Completion Report Part II to be returned to CWRM. | Licensed Pump Installer | Within 60 days of completion of Pump Installation (the date that ALL aspects of Well Completion Report Part II can be filed in). |
| 14   | Acceptance of Well Completion Report Part I, Elevation Survey. | CWRM | None |
| 15   | Issuance of Certificate of Well Construction Completion to Landowner. | CWRM | None |
| 16   | Acceptance of Well Completion Report Part II. | CWRM | None |
| 17   | Issuance of Certificate of Pump Installation Completion to Landowner. | CWRM | None |
| 18   | Pumpage may commence, Water Use Reporting required. | Well Operator | Monthly recording. |
| 19   | Abandonment (initiated in Step 2 of process). | Landowner | Until well sealed. |

**Notes:**

A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:

a) Have the 90-day deadline for approval waived (at your request); or

b) Be denied and you can seek recourse at a Commission hearing.

c) Be denied and you can seek recourse at a Commission hearing.

d) Be delayed or denied and you can seek recourse at a Commission hearing.

B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).

C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

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 10 copies and 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 808-973-3457. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

WELL LOCATION INFORMATION

1. STATE WELL NO. (If already assigned) 1806-10
2. WELL NAME Covanta Honolulu Resource Recovery Venture
3. ISLAND Oahu
4. TMK 9 - 1 - 026 - 030
5. WELL OPERATOR'S NAME/COMPANY Glen Kashiwabara
6. LANDOWNER'S NAME/COMPANY City and County of Honolulu
7. OWNER'S NAME/COMPANY Landowner's Contact

Well Operator's Mailing Address
Landowner's Mailing Address

PROPOSED WELL CONSTRUCTION

7. Proposed Work
   [ ] Construct New Well
   [ ] Modify Existing Well
   [ ] abandon/Seal Well
8. Construction Type
   [ ] Drilled
   [ ] dug
   [ ] Shaft
   [ ] Tunnel

PROPOSED PUMP INSTALLATION

10. Proposed Work
   [ ] Install New Pump
   [ ] Replace Pump
11. Proposed Pumping Rate, gpm
   (gallons per minute)

12. Proposed Amount of Withdrawal, gpd
   (gallons per day)

13. Method of flow measurement
   [ ] Flowmeter
   [ ] Other (explain)

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

PROPOSED USE

[ ] 15. Municipal (water systems serving greater than 25 individuals or 15 service connections)
[ ] 16. Domestic (Number of units to be served: )
[ ] 17. Industrial (describe)
[ ] 18. Irrigation (describe crop and no. of acres)
[ ] 19. Military (describe)
[ ] 20. Other (describe)

OTHER LEGAL REQUIREMENTS

21. Conservation District Use Permit (CDUP)
    [ ] Well is in Conservation District
    [ ] Required, CDUP # date approved
    [ ] Not Required (attach documentation from OCCCL)
22. Special Management Area Permit (SIMAP)
    [ ] Required, SMA # date approved
    [ ] Not Required (attach documentation from applicable County agency)

23. State Historic Preservation Division (SHPD)
    [ ] I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
    [ ] I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

Additional remarks, explanations, etc. (attach additional sheet if more space is needed) Proposed pump installation is not in an SMA area

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $5000/day.

24. WELL DRILLER (Must be filled out if application is for Well Construction)
   Licensee business name C-57 License No. 
   Signature Print Date

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)
   Will be provided at the time the Contractor is Selected
   Licensee business name C-57/C-57a/A License No.
   Signature Print Date

WCPI Application Form 02/26/2007
**PROPOSED WELL SECTION**

(please attach schematic if different from diagram provided below)

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, 

Bottom Elevation of Well Limit = (Water Level Elev. - 0.25 x (Ground Elev. - Water Level Elev.))/4

Example: Estimated + 2 ft. Water Level Elev. - (Ground Elev. - Water Level Elev.)/4 = -18.5 ft.

**Solid Casing Material:**

- Carbon Steel: compliant with (check one or more):  
  - ANSI/AWWA C200  
  - API Spec. 5L  
  - ASTM A53  
  - ASTM A139

And compliant with (check one or more):  
- ASTM A242 (or A606)  
- Type E  
- Type S  
- Grade B  
- Other

ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)  
- Schedule 80  
- Schedule 40

**Thermoset Plastic:**

- Centrifugally Cast Resin Pipe conforming to ASTM D2997
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296

**Open Casing:**

- Perforated  
- Screen

- Centrifugally Cast Resin Pipe conforming to ASTM D2997
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296

**Grouting method:**

- Positive displacement
- Other

**Annular space between hole and casing:** (1.5" for positive displacement, 3" for other methods)

**For non-salt water Basal Wells** - bottom elevation of well should not be deeper than

Minimum of 2' Radius & 4' Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)

**Solid Casing:** (≥ 90%) x (Ground Elevation - Water Level Elev.)

Total Length: 50 ft.
NOMINAL DIAMETER: 18 in.
Wall Thickness: 88 ft., ml*
Bottom Elevation: -38 ft., ml*

Please refer to the **HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS** to ensure that your as-built is in compliance with applicable standards.

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, 

Bottom Elevation of Well Limit = (Water Elevation - 0.25 x (Ground Elev. - Water Level Elev.))/4

Example: Estimated + 2 ft. Water Level Elev. - (Ground Elev. - Water Level Elev.)/4 = -18.5 ft.

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- Carbon Steel: compliant with (check one or more):  
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  - API Spec. 5L  
  - ASTM A53  
  - ASTM A139

And compliant with (check one or more):  
- ASTM A242 (or A606)  
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Total Length: 50 ft.
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Wall Thickness: 88 ft., ml*
Bottom Elevation: -38 ft., ml*

Please refer to the **HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS** to ensure that your as-built is in compliance with applicable standards.
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION
☐ Fill in the most recent application form. (check www.hawaii.gov/dlnr/cwrm or call 587-0225 for updates)
☐ Fill every line in (both sides of application).
☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.
☐ Mark the proposed well location on: the appropriate USGS quad map, the TMK map, the photo and the schematic, and attach to the application.
☐ For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.
☐ Attach the original and 10 copies of the application form, maps, photo and schematic.
☐ Attach letters from OCCL and appropriate county agencies regarding items 21 to 23.
☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

DESCRIPTIONS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION
1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. ISLAND The island name that the well is located on.
4. TMK Tax Map Key number
5. Well operator’s information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumping when the construction is completed.
6. Landowner’s information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION
7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. Construction type The construction type can be drilled, dug, shaft, or tunnel.
9. Battery Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes functions as a single source.

PROPOSED PUMP INSTALLATION
10. Proposed work The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission of a Well Completion Report Part II.
11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed (the proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. Method of flow measurement This is the proposed method the operator will be using to measure pumpage for reporting purposes.

PROPOSED SURVEYOR
14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it is necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write “deferred” in this space.

PROPOSED USE
15. Municipal Use is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term "domestic use".
16. Domestic Use is any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.
17. Industrial Use is for uses such as cooling or processing water, etc.
18. Irrigation Use is for golf courses, agriculture, etc.
19. Military Use is water used by the military from military operated water supply systems.
20. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS
21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (http://www.hawaii.gov/dlnr/depghi/maps/land_use_permit.pdf) or call 587-4333. If the well is not in a CD, then you may check not in a CD box. If the well site is in a CD you will need to then determine if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCL) of DLNR at 587-0377.
22. Special Management Area Permit (SMAP) To determine if an SMAP is necessary.
23. Historic Preservation review If the parcel(s) affected by construction (well location/access road/infrastructure for well) has been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHPD) or through an OEQS Environmental Review, Special Management Area Permit, etc.), check “yes” and attach any relevant documentation from SHPD. If the affected parcel(s) has not undergone SHPD review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Please note: You are strongly advised to contact the SHPD to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHPD’s concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHPD, please call 587-0225.

SIGNATURES
24. Well Driller This section must be filled out completely for the Well Construction Permit application to be accepted as complete.
25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.
<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ensure that items 21 to 23 of the application are required, that they are obtained prior to applying for a permit. Otherwise, post-application comments obtained from these agencies may delay processing of your application.</td>
</tr>
<tr>
<td>2</td>
<td>Application for Well Construction (or modification) and/or Pump Installation (or replacement with larger capacity than existing pump - see note B below).</td>
</tr>
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<td>3</td>
<td>Issuance of Well Construction Permit to Well Driller (if applied for).</td>
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<td>Construction of well. Note: a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work. b) If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e. go back to step 1 above).</td>
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<td>11</td>
<td>Application for permit extension (if required).</td>
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<tr>
<td>12</td>
<td>Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM.</td>
</tr>
<tr>
<td>13</td>
<td>Well Completion Report Part II to be returned to CWRM.</td>
</tr>
<tr>
<td>14</td>
<td>Acceptance of Well Completion Report Part I, Elevation Survey.</td>
</tr>
<tr>
<td>15</td>
<td>Issuance of Certificate of Well Construction Completion to Landowner.</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance of Well Completion Report Part II.</td>
</tr>
<tr>
<td>17</td>
<td>Issuance of Certificate of Pump Installation Completion to Landowner.</td>
</tr>
<tr>
<td>18</td>
<td>Pumpage may commence, Water Use Reporting required.</td>
</tr>
<tr>
<td>19</td>
<td>Abandonment (initiated in Step 2 of process).</td>
</tr>
</tbody>
</table>

NOTES:
A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.
B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).
C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
Site Map
H-Power Application for Pump Installation Permit.

Legend
- Well Location
- Site Boundary
- TMK Boundaries

FIGURE 1
TMK Map
H-Power Application for Pump Installation Permit.

Legend

- Well Location
- Site Boundary
- TMK Boundaries

Fig 2
Site Photographs of the Sources and Locations of Proposed End Uses

H-Power Application for Pump Installation Permit.
March 4, 2009

Mr. S. Samuel Joshi, PE, QEP
Manager, Environmental Engineering
Covanta Honolulu Resource Recovery Venture
C/o Covanta Energy Corporation

Dear Mr. Joshi:

Subject: Draft Environmental Impact Statement
H-Power Third Boiler Expansion Project
91-174 Hanua Street – Campbell Industrial Park
Tax Map Key 9-1-26: 30

This is in response to your request, received January 30, 2009, for comments concerning the Draft Environmental Impact Statement (DEIS) for the subject project.

The project site, as well as the adjoining parcels to be used for construction lay-down (Tax Map Key 9-1-26: 33 and 34), are not located in the Special Management Area (SMA) or the shoreline setback, and will not require an SMA permit or shoreline setback variance.

Please note that the project does not require a modification to Conditional Use Permit (CUP) No. 89/CUP1-17, as stated in Section 3.0, “Required Approvals and Permits,” of the DEIS. Since the H-Power facility is now owned and operated by the City, it is thus considered to be a “public use and structure” for purposes of the Land Use Ordinance (LUO); and, as such is a permitted use in all zoning districts. When the CUP had originally been issued, the use was then classified as a “utility installation, Type B,” since at that time it had been privately owned and operated.

The project will need to obtain an approved zoning waiver, pursuant to LUO Section 21-2.130(a)(1), for any portion of the project which will exceed the maximum 60-foot zoning height for the site.
Thank you for the opportunity to comment on the DEIS. Please contact Blake La Benz of our staff at [redacted] for any questions.

Very truly yours,

[Signature]

David K. Tanoue, Director
Department of Planning and Permitting

DKT:fm
cc: Department of Environmental Services
    Office of Environmental Quality Control
    AMEC Earth & Environmental, Inc.

G:\LandUse\PosteWorkingDirectory\Blake\Correspondence\09ELOG-234.doc
March 16, 2009

Mr. S. Samuel Joshi
Covanta Energy Corporation

Dear Mr. Joshi:

SUBJECT: 6E-8 Historic Preservation Review—
DRAFT Environmental Impact Statement (DEIS)—
H-POWER Expansion Project,
Hono‘ulii‘uli Ahupua‘a, ‘Ewa District, O‘ahu, Hawai‘i
TMK: (1) 9-026-030, 033, 034

Thank you for the opportunity to review this DRAFT Environmental Impact Statement, which we received via CD on January 28, 2009.

The H-POWER site is located in the Campbell Industrial Park at Kalaeloa [formerly called Barbers Point or Barber’s Point]. The H-POWER facility, which began operation in May 1990, is operated by Covanta Honolulu Resource Recovery Venture (CHRRV) on behalf of the City and County of Honolulu.

This project will entail the expansion of the current H-POWER facility onto parcels 33 and 34 adjacent to the current facility. They are currently vacant. A garden for endemic plants and the site for the reburial of a single human burial previously discovered when the initial facility was built in the 1980’s area present on the site. Because of the possibility that sinkholes prevalent in this portion of ‘Ewa could contain historic properties, an archaeological and cultural impact assessment study in support of the proposed expansion on 24.635 acres of industrially zoned land was undertaken to determine the presence or absence of historic properties (ARCHAEOLOGICAL AND CULTURAL IMPACT ASSESSMENTS FOR THE PROPOSED H-POWER EXPANSION PROJECT, HONO‘ULII‘ULI AHUPUA‘A, ‘EWA DISTRICT, ISLAND OF O‘AHU, TMK: (1) 9-1-026:30, 33, AND 34[McCoy and Clark, September 2008]).

There is evidence that large portions of Parcels 33 and 34 have been grubbed and graded. Clearing may have occurred on more than one occasion. Aerial photographs suggest that the land clearing project undertaken by Campbell Estate in the early 1960s on Parcel 30 and documented during the archaeological reconnaissance survey in 1983 also included Parcels 33 and 34.

No historic properties were recorded during this archaeological assessment; however, it is recommended that precautionary monitoring be performed during any ground disturbing activities. We find that there are no historic properties affected by this project.

Please call Wendy Tolleson at [contact information removed] if there are any questions or concerns regarding this letter.
Aloha,

Nancy A. McMahon (Deputy SHPO)
State Historic Preservation Officer

CC:

Mr. Stephen Langham
Environmental Services Refuse Division, H_POWER

Dr. Russell Okoji
AMEC Earth & Environmental, Inc.
**STATE OF HAWAII**
**DEPARTMENT OF LAND AND NATURAL RESOURCES**
**COMMISSION ON WATER RESOURCE MANAGEMENT**
**APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT**

**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 10 copies and 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 808-587-0303. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

**WELL LOCATION INFORMATION**

1. **STATE WELL NO.** (if already assigned) 1800-09
2. **WELL NAME** Covanta Honolulu Resource Recovery Venture
3. **ISLAND** Oahu
4. **TMK** SW-1
5. **PROJECTED WELL SITE** Glen Kashiyabara
6. **WELL OPERATOR'S NAME/COMPANY** Covanta Honolulu Resource Recovery Venture
7. **WELL OWNER'S NAME/COMPANY** City and County of Honolulu
8. **WELL OPERATOR'S CONTACT** Stephen Langham
9. **WELL OPERATOR'S MAILING ADDRESS**
10. **WELL OWNER'S MAILING ADDRESS**

**PROPOSED WELL CONSTRUCTION**

<table>
<thead>
<tr>
<th>Proposed Work</th>
<th>Rate, gpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct New Well</td>
<td>2319 gpm</td>
</tr>
<tr>
<td>Modify Existing Well</td>
<td>2319 gpm</td>
</tr>
<tr>
<td>Abandon/Seal Well</td>
<td>2319 gpm</td>
</tr>
</tbody>
</table>

**PROPOSED PUMP INSTALLATION**

<table>
<thead>
<tr>
<th>Proposed Pump Type</th>
<th>Rate, gpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drilled</td>
<td>2319 gpm</td>
</tr>
<tr>
<td>Dug</td>
<td>2319 gpm</td>
</tr>
<tr>
<td>Shaft</td>
<td>2319 gpm</td>
</tr>
<tr>
<td>Tunnel</td>
<td>2319 gpm</td>
</tr>
</tbody>
</table>

**OTHER LEGAL REQUIREMENTS**

If required, items 21 and 22 must be obtained before the Commission can legally issue a permit.

21. Conservation District Use Permit (CDUP)
   - Required, CDUP 
   - Date approved

22. Special Management Area Permit (SMA)
   - Required, SMA 
   - Date approved

23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources
   - I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
   - I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

**SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD.**

**NOTE:** Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $5000/day.

24. **WELL DRILLER** (Must be filled out if application is for Well Construction)

<table>
<thead>
<tr>
<th>Licensee business name</th>
<th>C-57 License No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>Print</td>
</tr>
<tr>
<td>Date</td>
<td></td>
</tr>
</tbody>
</table>

25. **PUMP INSTALLER** (Must be filled out if application is for Pump Installation)

<table>
<thead>
<tr>
<th>Licensee business name</th>
<th>C-57/C-57a/L License No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>Print</td>
</tr>
<tr>
<td>Date</td>
<td></td>
</tr>
</tbody>
</table>
PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Elevation at top of casing: 12 ft., ms*l

Cement Grout: 47 ft. (min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less)

Grouting method:
- Positive displacement
- Other

Annular space between hole and casing: 3 in. (for other methods)

Rock or Gravel Packing:
- Crushed Basalt
- Rounded Gravel

Estimated Water Level Elevation: --- ft., ms*l

Solid Casing: (≤ 90° x (Ground Elev.-Water Level Elev))
- Total Length: 50 ft.
- Nominal Diameter: 18 in.
- Wall Thickness: varies in.
- Bottom Elevation: -36 ft., ms*l

Open Casing:
- Perforated
- Screen
- Total Length: 50 ft.
- Nominal Diameter: 18 in.
- Wall Thickness: varies in.
- Bottom Elevation: -88 ft., ms*l

Note: Neither bentonite nor mud should be used in saturated zone during drilling

Solid Casing Material:
- Carbon Steel: compliant with (check one or more): □ ANSI/WWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
  - And compliant with (check one or more): □ ASTM A324 (or A606) □ Type E □ Type S □ Grade B □ Other
- Stainless Steel: (check one):
  - □ ASTM A409 (production wells)
  - □ ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one): □ Schedule 40 □ Schedule 80
- PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one): □ Schedule 40 □ Schedule 80 □ Schedule 120
- Thermoset Plastic: (check one):
  - □ Filament Wound Resin Pipe conforming to ASTM D2996
  - □ Centrifuily Cast Resin Pipe conforming to ASTM D2997
  - □ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - □ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  - □ PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - □ FEP Fluorocarbon Tubing conforming to ASTM D3295

Open Casing Material:
- Carbon Steel: compliant with (check one or more): □ ANSI/WWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
  - And compliant with (check one or more): □ ASTM A242 (or A606) □ Type E □ Type S □ Grade B □ Other
- Stainless Steel: (check one):
  - □ ASTM A409 (production wells)
  - □ ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one): □ Schedule 40 □ Schedule 80
- PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one): □ Schedule 40 □ Schedule 80 □ Schedule 120
- Thermoset Plastic: (check one):
  - □ Filament Wound Resin Pipe conforming to ASTM D2996
  - □ Centrifugally Cast Resin Pipe conforming to ASTM D2997
  - □ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - □ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  - □ PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - □ FEP Fluorocarbon Tubing conforming to ASTM D3296

Other

Grouting:
- Open Hole:
  - Length: 3 ft.
  - Diameter: 24 in.
  - Bottom Elevation: -91 ft., ms*l

For non-salt water Basalt Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Elevation - 3 ft.) / 4
Example: Estimated + 2 ft. Water Level Elev. --- Bottom Elevation of Well Limit = (2 - 3 ft.) / 4 = 1.5 ft.

HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS
Please refer to the

* The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basalt Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or,
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION
☐ Fill in the most recent application form. (check www.hawaii.gov/dlnr/cwm or call 587-0225 for updates)
☐ Fill every line in (both sides of application).
☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.
☐ Mark the proposed well location on the: appropriate USGS quad map, the TMK map, the photo and the schematic, and attach to the application.
☐ For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.
☐ Attach the original and 10 copies of the application form, maps, photo and schematic.
☐ Attach letters from OCCL and appropriate county agencies regarding items 21 to 23.
☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

DESCRIPTORS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION
1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. ISLAND The island that the well is located on.
4. TMK Tax Map Key number
5. Well operator’s information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumping when the construction is completed.
6. Landowner’s information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION
7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. Construction type The construction type can be drilled, dug, shaft, or tunnel.
9. Battery Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes functions as a single source.

PROPOSED PUMP INSTALLATION
10. Proposed work The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission of a Well Completion Report Part II.
11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed (the proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. Method of flow measurement This is the proposed method the operator will be using to measure pumpage for reporting purposes.

PROPOSED SURVEYOR
14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it is necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write “deferred” in this space.

PROPOSED USE
15. Municipal Use is used by the military from military operated water supply systems.
16. Domestic Use is for uses such as cooling or processing water, etc.
17. Industrial Use is any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.
18. Irrigation Use is for golf courses, agriculture, etc.
19. Military Use is water used by the military from military operated water supply systems.
20. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS
21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (http://www.hawaii.gov/dlnr/gis/maps/ldod_map.php or call 587-2823). If the well is not in a CD, then you may check not in a CD box. If the well site is in a CD you will need to then determine if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCL) of DLNR at 587-0377.
22. Special Management Area Permit (SMAP) To determine if an SMAP is necessary, on Oahu call 587-0425.
23. Historic Preservation review If the parcel(s) affected by construction (well location/access road/infrastructure for well) has been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHDP) or through an OESC Environmental Permit, Special Management Area Permit, etc.), check “yes” and attach any relevant documentation from SHDP. If the affected parcel(s) has not undergone SHDP review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Please note: You are strongly advised to contact the SHDP to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHDP’s concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHDP, please call 587-0425.

SIGNATURES
24. Well Driller This section must be filled out completely for the Well Construction Permit application to be accepted as complete.
25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.
# COMMISSION ON WATER RESOURCE MANAGEMENT
## WELL CONSTRUCTION/PUMP INSTALLATION PERMIT PROCESS WORKSHEET

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Responsible Party</th>
<th>Legal Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ensure that if items 21 to 23 of the application are required, that they are obtained prior to applying for a permit. Otherwise, post-application comments obtained from these agencies may delay processing of your application.</td>
<td>Applicant</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Application for Well Construction (or modification) and/or Pump Installation (or replacement with larger capacity than existing pump - see note B below).</td>
<td>Licensed Well Driller (for Well Construction) and/or Licensed Pump Contractor (for Pump Installation) (See note C below)</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Issuance of Well Construction Permit to Well Driller (if applied for).</td>
<td>CWRM</td>
<td>Within 60 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. (See note A below)</td>
</tr>
<tr>
<td>4</td>
<td>Issuance of Pump Installation Permit to Pump Installer (if applied for).</td>
<td>CWRM</td>
<td>Within 60 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. (See note A below)</td>
</tr>
<tr>
<td>5</td>
<td>Execute/Sign Permit.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Before work activity begins.</td>
</tr>
<tr>
<td>6</td>
<td>Start of Work Notice.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>2 weeks prior to beginning of work activity.</td>
</tr>
<tr>
<td>7</td>
<td>Post copy of permit at the work site.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>During entire period of work activity at the site.</td>
</tr>
<tr>
<td>8</td>
<td>Construction of well. Note: a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work. b) If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e. go back to step 1 above).</td>
<td>Licensed Well Driller</td>
<td>Within 2 years of issuance of Well Completion Permit.</td>
</tr>
<tr>
<td>9</td>
<td>Installation of a temporary test pump that can adequately conduct a step-drawdown test (if proposed pump&gt;70 gpm).</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>10</td>
<td>Installation of permanent pump.</td>
<td>Licensed Pump Installer</td>
<td>Within 2 years of issuance of Pump Installation Permit.</td>
</tr>
<tr>
<td>11</td>
<td>Application for permit extension (if required).</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>12</td>
<td>Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM.</td>
<td>Licensed Well Driller</td>
<td>Within 60 days of completion of Well Construction (the date that ALL aspects of Well Completion Report Part I can be filled in).</td>
</tr>
<tr>
<td>13</td>
<td>Well Completion Report Part II to be returned to CWRM.</td>
<td>Licensed Pump Installer</td>
<td>Within 60 days of completion of Pump Installation (the date that ALL aspects of Well Completion Report Part II can be filled in).</td>
</tr>
<tr>
<td>14</td>
<td>Acceptance of Well Completion Report Part I, Elevation Survey.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>15</td>
<td>Issuance of Certificate of Well Construction Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance of Well Completion Report Part II.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>17</td>
<td>Issuance of Certificate of Pump Installation Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>18</td>
<td>Pumpage may commence, Water Use Reporting required.</td>
<td>Well Operator</td>
<td>Monthly recording.</td>
</tr>
<tr>
<td>19</td>
<td>Abandonment (initiated in Step 2 of process).</td>
<td>Landowner</td>
<td>Until well sealed.</td>
</tr>
</tbody>
</table>

**NOTES:**
A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.
B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).
C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.

---

**APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT**

**STATE OF HAWAII**
**DEPARTMENT OF LAND AND NATURAL RESOURCES**
**COMMISSION ON WATER RESOURCE MANAGEMENT**

**Instructions:** Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 26, Honolulu, Hawaii 96813. Application must be accompanied by 10 copies and 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 941-8708. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

## WELL LOCATION INFORMATION

1. **STATE WELL NO. (if already assigned)**
   - 1806-10

2. **WELL NAME**
   - SW-2

3. **ISLAND**
   - Oahu

4. **TMK**
   - 9 1 026 030

The following must be attached before this application is accepted as complete:
- Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For dug wells, attach a grading plan with cross section profiles showing existing and finish grades

## Well Operator's Contact Information

- **Well Operator's Mailing Address:**
  - Covanta Honolulu Resource Recovery Venture
  - Glen Kashiwabara

- **City and County of Honolulu**
  - Stephen Langham

- **Landowner's Mailing Address:**
  - Landowner’s Name/Company: City and County of Honolulu

- **Landowner’s Contact:**
  - Stephen Langham

## Proposed Well Construction

<table>
<thead>
<tr>
<th>7. Proposed Work</th>
<th>8. Construction Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modify Existing Well</td>
<td>Drilled</td>
</tr>
<tr>
<td>Abandon/Seal Well</td>
<td>Shaft</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10. Proposed Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install New Pump</td>
</tr>
<tr>
<td>Replace Pump</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11. Proposed Pumping Rate, gpm (gallons per minute)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2319 gpm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12. Proposed Amount of Withdrawal, gpd (gallons per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.34 million gallons per day (total withdrawal from 2 wells)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
</tr>
</tbody>
</table>

## Proposed Pump Installation

<table>
<thead>
<tr>
<th>13. Method of flow measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flowmeter</td>
</tr>
<tr>
<td>Other (explain)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>19. Military (describe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
</tr>
</tbody>
</table>

## Other Legal Requirements

- **If required, items 21 and 22 must be obtained before the Commission can legally issue a permit:**

<table>
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<tr>
<th>21. Conservation District Use Permit (CDUP)</th>
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<td>Required, CDUP #</td>
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<tr>
<td>Not Required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>22. Special Management Area Permit (SMA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required, SMA #</td>
</tr>
<tr>
<td>Not Required</td>
</tr>
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</table>

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<tr>
<th>23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. (attach application for Permit from the HPD)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional remarks, explanations, etc. (attach additional sheet if more space is needed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed pump installation is not in an SMA area</td>
</tr>
</tbody>
</table>

**NOTE:** Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 88 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $500/day.

**24. WELL DRILLER (Must be filled out if application is for Well Construction)**

<table>
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<tr>
<th>Licensee business name</th>
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<tr>
<td>C-57 L License No.</td>
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<table>
<thead>
<tr>
<th>Signature</th>
<th>Print</th>
<th>Date</th>
</tr>
</thead>
</table>

**25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)**

<table>
<thead>
<tr>
<th>Licensee business name</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-57/C-57a License No.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Signature</th>
<th>Print</th>
<th>Date</th>
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</thead>
</table>

**WPCI Application Form 02/26/2007**
**PROPOSED WELL SECTION**  (Please attach schematic different from diagram provided below)

<table>
<thead>
<tr>
<th>Elevation at top of casing</th>
<th>Hole Diameter: 24 in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 ft., msl*</td>
<td></td>
</tr>
</tbody>
</table>

Cement Grout: 47 ft. (min. 70% of distance from ground elevation to top of water surface or 50 ft., whichever is less.)

Grouting method:
- □ Positive displacement
- □ Other

Annular space between hole and casing (1.5" for positive displacement, 3" for other methods):
- 3 in.

Rock or Gravel Packing:
- 53 ft.
- □ Crushed Basalt
- □ Rounded Gravel

Estimated Water Level Elevation:
- ft., msl*

Minimum of 2’ Radius & 4’ Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)

Ground Elevation: 12.83 ft., msl*

Solid Casing: (≥ 90% x (Ground Elev.-Water Level Elev))
- Total Length: 50 ft.
- Nominal Diameter: 18 in.
- Wall Thickness: varies in.
- Bottom Elevation: -38 ft., msl*

Open Casing:
- □ Perforated
- □ Screen

Total Depth: 105 ft.

Solid casing: (≥ 90% x (Ground Elev.-Water Level Elev))

Solid Steel: compliant
- □ ASTM A409 (production wells)
- □ ASTM A312 (monitor wells)

ABS Plastic conforming to ASTM D480 and ASTM D1527: (check one)
- □ Schedule 40
- □ Schedule 80

PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one)
- □ Schedule 40
- □ Schedule 80
- □ Schedule 120

Thermoset Plastic: (check one)
- □ Filament Wound Resin Pipe conforming to ASTM D2996
- □ Centrifugally Cast Resin Pipe conforming to ASTM D2997
- □ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- □ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- □ PTFE Fluorocarbon Tubing conforming to ASTM D3296
- □ FEP Fluorocarbon Tubing conforming to ASTM D3298

Open Casing:
- □ Perforated
- □ Screen

Total Depth: 50 ft.

Open Hole:
- Length: 5 ft.
- Diameter: 24 in.
- Bottom Elevation: -93 ft., msl*

Solid Steel: compliant
- □ ASTM A409 (production wells)
- □ ASTM A312 (monitor wells)

ABS Plastic conforming to ASTM D480 and ASTM D1527: (check one)
- □ Schedule 40
- □ Schedule 80

PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one)
- □ Schedule 40
- □ Schedule 80
- □ Schedule 120

Thermoset Plastic: (check one)
- □ Filament Wound Resin Pipe conforming to ASTM D2996
- □ Centrifugally Cast Resin Pipe conforming to ASTM D2997
- □ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- □ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- □ PTFE Fluorocarbon Tubing conforming to ASTM D3296
- □ FEP Fluorocarbon Tubing conforming to ASTM D3298

* The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or,

Bottom Elevation of Well Limit = (Water Elevation - Ground Elev.) / 4


**Solid Casing Material:**
- Carbon Steel: compliant with
  - (check one or more): □ ANSI/WWA C200  □ API Spec. 5L  □ ASTM A53  □ ASTM A139
  - And compliant with
    - (check one or more): □ ASTM A242 (or A606)  □ Type E  □ Type S  □ Grade B  □ Other
  - Stainless Steel: (check one):
    - □ ASTM A409 (production wells)
    - □ ASTM A312 (monitor wells)
  - ABS Plastic conforming to ASTM D480 and ASTM D1527: (check one)
    - □ Schedule 40
    - □ Schedule 80
  - PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one)
    - □ Schedule 40
    - □ Schedule 80
    - □ Schedule 120
  - Thermoset Plastic: (check one)
    - □ Filament Wound Resin Pipe conforming to ASTM D2996
    - □ Centrifugally Cast Resin Pipe conforming to ASTM D2997
    - □ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
    - □ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
    - □ PTFE Fluorocarbon Tubing conforming to ASTM D3296
    - □ FEP Fluorocarbon Tubing conforming to ASTM D3298

**Open Casing Material:**
- Carbon Steel: compliant with
  - (check one or more): □ ANSI/WWA C200  □ API Spec. 5L  □ ASTM A53  □ ASTM A139
  - And compliant with
    - (check one or more): □ ASTM A242 (or A606)  □ Type E  □ Type S  □ Grade B  □ Other
  - Stainless Steel: (check one):
    - □ ASTM A409 (production wells)
    - □ ASTM A312 (monitor wells)
  - ABS Plastic conforming to ASTM D480 and ASTM D1527: (check one)
    - □ Schedule 40
    - □ Schedule 80
  - PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one)
    - □ Schedule 40
    - □ Schedule 80
    - □ Schedule 120
  - Thermoset Plastic: (check one)
    - □ Filament Wound Resin Pipe conforming to ASTM D2996
    - □ Centrifugally Cast Resin Pipe conforming to ASTM D2997
    - □ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
    - □ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
    - □ PTFE Fluorocarbon Tubing conforming to ASTM D3296
    - □ FEP Fluorocarbon Tubing conforming to ASTM D3298

18" O.D. X .440" wall Solid PVC, Class 100, SDR 41, ASTM D-2441

Perforation .08 sq. ft./ft.
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION
☐ Fill in the most recent application form.
  (check www.hawaii.gov/dlnr/cwrm or call [phone number] for updates)
☐ Fill every line in (both sides of application).
☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.
☐ Mark the proposed well location on: the appropriate USGS quad map, the TMK map, the photo and the schematic, and attach to the application.
☐ For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.
☐ Attach the original and 10 copies of the application form, maps, photo and schematic.
☐ Attach letters from OCCL and appropriate county agencies regarding items 21 to 23.
☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

DESCRIPTIONS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION
1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. ISLAND The island that the well is located on.
4. TMK Tax Map Key number
5. Well operator's information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumping when the construction is completed.
6. Landowner's Information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION
7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. Construction type The construction type can be drilled, dug, shaft, or tunnel.
9. Battery Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes functions as a single source.

PROPOSED PUMP INSTALLATION
10. Proposed work The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission of a Well Completion Report Part II.
11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed the proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. Method of flow measurement This is the proposed method the operator will be using to measure pumpage for reporting purposes.

PROPOSED SURVEYOR
14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it is necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write "deferred" in this space.

PROPOSED USE
15. Municipal Use is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term "domestic use".
16. Domestic Use is any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.
17. Industrial Use is for uses such as cooling or processing water, etc.
18. Irrigation Use is for golf courses, agriculture, etc.
19. Military Use is water used by the military from military operated water supply systems.
20. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS
21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (http://www.hawaii.gov/dlnr/gis/mr/mr/gis_map.cfm) or call [phone number]. If the well is not in a CD, then you may check not in a CD box. If the well site is in a CD you will need to then determine if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCL) of DLNR at 587-0377.
22. Special Management Area Permit (SMAP) To determine if an SMAP is necessary, on Oahu call [phone number].
23. Historic Preservation review If the parcel(s) affected by construction (well location/access road/infrastructure for well) has been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHDP) or through an OEOC Environmental Review, Special Management Area Permit, etc.), check "yes" and attach any relevant documentation from SHDP. If the affected parcel(s) has not undergone SHDP review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Please note: You are strongly advised to contact the SHDP to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHDP's concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHDP, please call [phone number].

SIGNATURES
24. Well Driller This section must be filled out completely for the Well Construction Permit application to be accepted as complete.
25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.
# COMMISSION ON WATER RESOURCE MANAGEMENT

**WELL CONSTRUCTION/PUMP INSTALLATION**

## PERMIT PROCESS WORKSHEET

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Responsible Party</th>
<th>Legal Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ensure that if items 21 to 23 of the application are required, that they are obtained prior to applying for a permit. Otherwise, post-application comments obtained from these agencies may delay processing of your application.</td>
<td>Applicant</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Application for Well Construction (or modification) and/or Pump Installation (or replacement with larger capacity than existing pump - see note B below).</td>
<td>Licensed Well Driller (for Well Construction) and/or Licensed Pump Contractor (for Pump Installation) (See note C below)</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Issuance of Well Construction Permit to Well Driller (if applied for).</td>
<td>CWRM</td>
<td>Within 60 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. [See note A below]</td>
</tr>
<tr>
<td>4</td>
<td>Issuance of Pump Installation Permit to Pump Installer (If applied for).</td>
<td>CWRM</td>
<td>Within 60 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. [See note A below]</td>
</tr>
<tr>
<td>5</td>
<td>Execute/Sign Permit.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Before work activity begins.</td>
</tr>
<tr>
<td>6</td>
<td>Start of Work Notice.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>2 weeks prior to beginning of work activity</td>
</tr>
<tr>
<td>7</td>
<td>Post copy of permit at the work site.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>During entire period of work activity at the site</td>
</tr>
<tr>
<td>8</td>
<td>Construction of well. Note: a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work. b) If the well is to be abandoned and relocated during the course of the Wells Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e. go back to step 1 above).</td>
<td>Licensed Well Driller</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>9</td>
<td>Installation of a temporary test pump that can adequately conduct a step-drawdown test (if proposed pump &gt; 70 gpm).</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>10</td>
<td>Installation of permanent pump.</td>
<td>Licensed Pump Installer</td>
<td>Within 2 years of issuance of Pump Installation Permit.</td>
</tr>
<tr>
<td>11</td>
<td>Application for permit extension (if required).</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>12</td>
<td>Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM.</td>
<td>Licensed Well Driller</td>
<td>Within 60 days of completion of Well Construction (the date that ALL aspects of Well Completion Report Part I can be filled in).</td>
</tr>
<tr>
<td>13</td>
<td>Well Completion Report Part II to be returned to CWRM.</td>
<td>Licensed Pump Installer</td>
<td>Within 60 days of completion of Pump Installation (the date that ALL aspects of Well Completion Report Part II can be filled in).</td>
</tr>
<tr>
<td>14</td>
<td>Acceptance of Well Completion Report Part I; Elevation Survey.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>15</td>
<td>Issuance of Certificate of Well Construction Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance of Well Completion Report Part II.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>17</td>
<td>Issuance of Certificate of Pump Installation Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>18</td>
<td>Pumpage may commence, Water Use Reporting required.</td>
<td>Well Operator</td>
<td>Monthly recording.</td>
</tr>
<tr>
<td>19</td>
<td>Abandonment (initiated in Step 2 of process).</td>
<td>Landowner</td>
<td>Until well sealed.</td>
</tr>
</tbody>
</table>

**NOTES:**

A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.

B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).

C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
TMK Map

H-Power Application for Pump Installation Permit.

Legend

Well Location

Site Boundary

TMK Boundaries

FIGURE 2
Site Photographs of the Sources and Locations of Proposed End Uses
H-Power Application for Pump Installation Permit.
March 4, 2009

Mr. S. Samuel Joshi, PE, QEP
Manager, Environmental Engineering
Covanta Honolulu Resource Recovery Venture
c/o Covanta Energy Corporation

Dear Mr. Joshi:

Subject: Draft Environmental Impact Statement
H-Power Third Boiler Expansion Project
91-174 Hanua Street – Campbell Industrial Park
Tax Map Key 9-1-26: 30

This is in response to your request, received January 30, 2009, for comments concerning the Draft Environmental Impact Statement (DEIS) for the subject project.

The project site, as well as the adjoining parcels to be used for construction lay-down (Tax Map Key 9-1-26: 33 and 34), are not located in the Special Management Area (SMA) or the shoreline setback, and will not require an SMA permit or shoreline setback variance.

Please note that the project does not require a modification to Conditional Use Permit (CUP) No. 89/CUP1-17, as stated in Section 3.0, “Required Approvals and Permits,” of the DEIS. Since the H-Power facility is now owned and operated by the City, it is thus considered to be a “public use and structure” for purposes of the Land Use Ordinance (LUO); and, as such is a permitted use in all zoning districts. When the CUP had originally been issued, the use was then classified as a “utility installation, Type B,” since at that time it had been privately owned and operated.

The project will need to obtain an approved zoning waiver, pursuant to LUO Section 21-2.130(a)(1), for any portion of the project which will exceed the maximum 60-foot zoning height for the site.
Mr. S. Samuel Joshi  
March 4, 2009  
Page 2

Thank you for the opportunity to comment on the DEIS. Please contact Blake La Benz of our staff at [Redacted] for any questions.

Very truly yours,

David K. Tanoue, Director  
Department of Planning and Permitting

DKT:fm  
cc: Department of Environmental Services  
Office of Environmental Quality Control  
AMEC Earth & Environmental, Inc.

G:\LandUse\PosseWorking\Directory\blake\Correspondence\09ELOG-234.doc
March 16, 2009

Mr. S. Samuel Joshi  
Covanta Energy Corporation  

Dear Mr. Joshi:

SUBJECT: 6E-8 Historic Preservation Review—DRAFT Environmental Impact Statement (DEIS)—H-POWER Expansion Project, Hono'uli'uli Ahupua'a, 'Ewa District, O'ahu, Hawai'i  
TMK: (1) 9-026-030, 033, 034

Thank you for the opportunity to review this DRAFT Environmental Impact Statement, which we received via CD on January 28, 2009.

The H-POWER site is located in the Campbell Industrial Park at Kalaeloa [formerly called Barbers Point or Barber's Point]. The H-POWER facility, which began operation in May 1990, is operated by Covanta Honolulu Resource Recovery Venture (CHRRV) on behalf of the City and County of Honolulu.

This project will entail the expansion of the current H-POWER facility onto parcels 33 and 34 adjacent to the current facility. They are currently vacant. A garden for endemic plants and the site for the reburial of a single human burial previously discovered when the initial facility was built in the 1980’s area present on the site. Because of the possibility that sinkholes prevalent in this portion of 'Ewa could contain historic properties, an archaeological and cultural impact assessment study in support of the proposed expansion on 24.635 acres of industrially zoned land was undertaken to determine the presence or absence of historic properties (ARCHAEOLOGICAL AND CULTURAL IMPACT ASSESSMENTS FOR THE PROPOSED H-POWER EXPANSION PROJECT, HONO'ULI'ULI AHUPUA'A, 'EWA DISTRICT, ISLAND OF O'AHU, TMK: (1) 9-1-026:30, 33, AND 34[McCoy and Clark, September 2008]).

There is evidence that large portions of Parcels 33 and 34 have been grubbed and graded. Clearing may have occurred on more than one occasion. Aerial photographs suggest that the land clearing project undertaken by Campbell Estate in the early 1960s on Parcel 30 and documented during the archaeological reconnaissance survey in 1983 also included Parcels 33 and 34.

No historic properties were recorded during this archaeological assessment; however, it is recommended that precautionary monitoring be performed during any ground disturbing activities. We find that there are no historic properties affected by this project.

Please call Wendy Tolleson at [redacted] if there are any questions or concerns regarding this letter.
Aloha,

Nancy A. McMahon (Deputy SHPO)
State Historic Preservation Officer

CC:

Mr. Stephen Langham
Environmental Services Refuse Division, H_POWER
91-174 Hanua Street

ENV Director
City and County of Honolulu
Department of Environmental Services

Dr. Russell Okoji
AMEC Earth & Environmental, Inc.
Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 2392, Kailua-Kona, HI 96745. Application must be accompanied by 10 copies and 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 808-835-8405. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/wrm.

WELL LOCATION INFORMATION

1. STATE WELL NO. (if already assigned) 1606-09
2. WELL NAME SW-1
3. ISLAND Oahu
4. TIN 026 030
5. WATER RESOURCES MANAGEMENT
6. FURTHER INFORMATION AND UPDATES TO THIS APPLICATION FORM
7. INSTRUCTIONS: COPIES AND A NON-REFUNDABLE FILING FEE OF $25.00 PAYABLE TO THE DEPT. OF LAND AND NATURAL RESOURCES.

NOTE: Signing of permit is in suspension may result in fines of up to $5000/day. Event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $5000/day.

PROPOSED WELL CONSTRUCTION

7. Proposed Work
   - Construct New Well
   - Modify Existing Well
   - Abandon/Seal Well

8. Construction Type
   - Drilled
   - Dug
   - Shaft
   - Tunnel

9. Is this well part of a battery of wells? □ Yes □ No

PROPOSED PUMP INSTALLATION

10. Proposed Work
    - Install New Pump
    - Replace Pump

11. Proposed Pumping Rate, gpm
    (gallons per minute)
    2319 gpm

12. Proposed Amount of Withdrawal, gpd (gallons per day)
    3.34 million gallons per day (total withdrawal from 2 wells)

13. Method of flow measurement
    □ Flowmeter
    □ Other (explain)

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

PROPOSED USE

□ 15. Municipal (water systems serving greater than 25 individuals or 15 service connections)

□ 16. Domestic
   Number of units to be served:

□ 17. Industrial (describe) Supply Well Pump for Energy from Waste Facility - Increase Flow Rate for Expansion of a 3rd Boiler, Cooling/Boiler

□ 18. Irrigation (describe crop and no. of acres)

□ 19. Military (describe)

□ 20. Other (describe)

OTHER LEGAL REQUIREMENTS

If required, items 21. and 22. must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)
   - Required, CDUP #____ date approved ______
   - Not Required (attach documentation from OCCl)
   - I have not checked with OCCl about whether or not a CDUP is required. I understand that checking with OCCl prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

   - Well is not in a Conservation District
   - I have not checked if well is in out of Conservation District. I understand that checking if the well is in a Conservation District may expedite my review. I further understand that issues raised may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

22. Special Management Area Permit (SMA)
   - Required, SMA #____ date approved ______
   - Not Required (attach documentation from applicable County agency)
   - I have not checked with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources
   - □ I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
   - □ I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

   Additional remarks, explanations, etc. (attach additional sheet if more space is needed)

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $5000/day.

24. WELL DRILLER (Must be filled out if application is for Well Construction)

   Licensee business name
   C-57 License No.

   Signature
   Date

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)

   Will be provided at the time the Contractor is Selected

   Licensee business name
   C-57/C-57a/A License No.

   Signature
   Date
Thermoset Plastic: (check one)

- ABS Plastic
- Stainless
- PVC

Grouting method:
- Positive
- Other

**Grouting method:** Annular space between hole and casing (1.5" for positive displacement, 3" for other methods):

- 3 in.

**Rock or Gravel Packing:**

- 53 ft.
- Crushed Basalt
- Roughed Gravel

**Estimated Water Level Elevation:**

- ft., msl*

**Total Depth:** 103 ft.

**Solid Casing Material:**

- Carbon Steel: compliant with (check one or more): □ ANSI/WWA C200  □ API Spec. 5L  □ ASTM A53  □ ASTM A139
  - And compliant with (check one or more): □ ASTM A242 (or A606)  □ Type E  □ Type S  □ Grade B  □ Other
- Stainless Steel: (check one):
  - □ ASTM A409 (production wells)  □ ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)  □ Schedule 40  □ Schedule 80
- PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one)  □ Schedule 40  □ Schedule 80  □ Schedule 120
- Thermoset Plastic: (check one):
  - □ Filament Wound Resin Pipe conforming to ASTM D2996
  - □ Centrallycast Resin Pipe conforming to ASTM D2997
  - □ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - □ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  - □ PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - □ FEP Fluorocarbon Tubing conforming to ASTM D3296

**Open Casing Material:**

- Carbon Steel: compliant with (check one or more): □ ANSI/WWA C200  □ API Spec. 5L  □ ASTM A53  □ ASTM A139
  - And compliant with (check one or more): □ ASTM A242 (or A606)  □ Type E  □ Type S  □ Grade B  □ Other
- Stainless Steel: (check one):
  - □ ASTM A409 (production wells)  □ ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)  □ Schedule 40  □ Schedule 80
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  - □ PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - □ FEP Fluorocarbon Tubing conforming to ASTM D3296

**Solid Casing:**

- Total Length: 50 ft.
- Nominal Diameter: 18 in.
- Wall Thickness: varies in.
- Bottom Elevation: -38 ft., msl*

**Open Casing:**

- Total Length: 50 ft.
- Nominal Diameter: 18 in.
- Wall Thickness: varies in.
- Bottom Elevation: -88 ft., msl*

- note: Neither bentonite nor mud should be used in saturated zone during drilling

**Estimated Water Level Elev.:**

- ft.

**Elevation at top of casing:**

- 12 ft., msl*

**Hole Diameter:**

- 24 in.

**Grouting method:**

- Positive
- Other

**Grouting method:** Annular space between hole and casing (1.5" for positive displacement, 3" for other methods):

- 3 in.

**Rock or Gravel Packing:**

- 53 ft.
- Crushed Basalt
- Roughed Gravel

**Estimated Water Level Elevation:**

- ft., msl*

**Total Depth:** 103 ft.

**Solid Casing:**

- Total Length: 50 ft.
- Nominal Diameter: 18 in.
- Wall Thickness: varies in.
- Bottom Elevation: -38 ft., msl*

**Open Casing:**

- Total Length: 50 ft.
- Nominal Diameter: 18 in.
- Wall Thickness: varies in.
- Bottom Elevation: -88 ft., msl*

- note: Neither bentonite nor mud should be used in saturated zone during drilling

**Estimated Water Level Elev.:**

- ft.

**Elevation at top of casing:**

- 12 ft., msl*

**Hole Diameter:**

- 24 in.

**Grouting method:**

- Positive
- Other

**Grouting method:** Annular space between hole and casing (1.5" for positive displacement, 3" for other methods):

- 3 in.

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- 53 ft.
- Crushed Basalt
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- ft., msl*

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**Solid Casing:**

- Total Length: 50 ft.
- Nominal Diameter: 18 in.
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- Nominal Diameter: 18 in.
- Wall Thickness: varies in.
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**Estimated Water Level Elev.:**

- ft.

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- 12 ft., msl*

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- 24 in.
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION
☐ Fill in the most recent application form. (check www.hawaii.gov/dlnr/cwrm or call 5 for updates)
☐ Fill every line in (both sides of application).
☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.
☐ Mark the proposed well location on: the appropriate USGS quadrup, the TMK map, the photo and the schematic, and attach to the application.
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☐ Attach letters from OCCL and appropriate county agencies regarding items 21 to 23.
☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management
P.O. Box 621
Honolua, HI 96789

DESCRIPTIONS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION

1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. ISLAND The island name that the well is located on
4. TMK Tax Map Key number
5. Well operator’s information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumping when the construction is completed.
6. Landowner’s information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION

7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. Construction type The construction type can be drilled, dug, shaft, or tunnel.
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11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, to not exceed the proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. Method of flow measurement This is the proposed method the operator will be using to measure pumpage for reporting purposes.

PROPOSED SURVEYOR

14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it is necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write “deferred” in this space.

PROPOSED USE

15. Municipal Use is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term “domestic use”.
16. Domestic Use is any use of water for individual personal needs and for household purposes such as drinking, bathing, cooking, noncommercial gardening, and sanitation.
17. Industrial Use is for uses such as cooling or processing water, etc.
18. Irrigation Use is for golf courses, agriculture, etc.
19. Military Use is used by the military from military operated water supply systems.
20. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS

21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) [http://www.hawaii.gov/dbedt/gis/maps/idiad.png or call 5 ] If the well is not in a CD, then you may check not in a CD box. If the well site is in a CD you will need to then determine if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCL) of DLNR at .
22. Special Management Area Permit (SMAP) To determine if an SMAP is necessary.

☐ Yes ☐ No

☐ by construction (well location/access road/infrastructure for well) has been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHDP or through an OEQC Environmental Review, Special Management Area Permit, etc.), check “yes” and attach any relevant documentation from SHDP. If the affected parcel(s) has not undergone SHDP review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Please note: You are strongly advised to contact the SHDP to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHDP’s concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHDP, please call .

SIGNATURES

24. Well Driller This section must be filled out completely for the Well Construction Permit application to be accepted as complete.
25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.
# COMMISSION ON WATER RESOURCE MANAGEMENT
## WELL CONSTRUCTION/PUMP INSTALLATION
### PERMIT PROCESS WORKSHEET

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Responsible Party</th>
<th>Legal Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ensure that if items 21 to 23 of the application are required, they are obtained prior to applying for a permit. Otherwise, post-application comments obtained from these agencies may delay processing of your application.</td>
<td>Applicant</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Application for Well Construction (or modification) and/or Pump Installation (or replacement with larger capacity than existing pump - see note B below).</td>
<td>Licensed Well Driller (for Well Construction) and/or Licensed Pump Contractor (for Pump Installation) (See note C below)</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Issuance of Well Construction Permit to Well Driller (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. (See note A below)</td>
</tr>
<tr>
<td>4</td>
<td>Issuance of Pump Installation Permit to Pump installer (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. (See note A below)</td>
</tr>
<tr>
<td>5</td>
<td>Execute/Sign Permit.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Before work activity begins.</td>
</tr>
<tr>
<td>6</td>
<td>Start of Work Notice</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>2 weeks prior to beginning of activity</td>
</tr>
<tr>
<td>7</td>
<td>Post copy of permit at the work site.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>During entire period of work activity at the site.</td>
</tr>
<tr>
<td>8</td>
<td>Construction of well. Note: a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work. b) If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e. go back to step 1 above).</td>
<td>Licensed Well Driller</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>9</td>
<td>Installation of a temporary test pump that can adequately conduct a step-drawdown test (if proposed pump&gt;75 gpm).</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>10</td>
<td>Installation of permanent pump.</td>
<td>Licensed Pump Installer</td>
<td>Within 2 years of issuance of Pump Installation Permit.</td>
</tr>
<tr>
<td>11</td>
<td>Application for permit extension (if required).</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>12</td>
<td>Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM.</td>
<td>Licensed Well Driller</td>
<td>Within 60 days of completion of Well Construction (the date that ALL aspects of Well Completion Report Part I can be filled in).</td>
</tr>
<tr>
<td>13</td>
<td>Well Completion Report Part II to be returned to CWRM.</td>
<td>Licensed Pump Installer</td>
<td>Within 60 days of completion of Pump Installation (the date that ALL aspects of Well Completion Report Part II can be filled in).</td>
</tr>
<tr>
<td>14</td>
<td>Acceptance of Well Completion Report Part I; Elevation Survey.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>15</td>
<td>Issuance of Certificate of Well Construction Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance of Well Completion Report Part II.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>17</td>
<td>Issuance of Certificate of Pump Installation Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>18</td>
<td>Pumpage may commence, Water Use Reporting required.</td>
<td>Well Operator</td>
<td>Monthly recording.</td>
</tr>
<tr>
<td>19</td>
<td>Abandonment (initiated in Step 2 of process).</td>
<td>Landowner</td>
<td>Until well sealed</td>
</tr>
</tbody>
</table>

**NOTES:**
A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.
B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).
C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
For Official Use Only:

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 1806, Honolulu, HI 96813. Application must be accompanied by 10 copies and 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 1-808-586-1944. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwm.

WELL LOCATION INFORMATION

| 1. STATE WEL NO. (if already assigned) | 1806-10 |
| 2. WELL NAME | SW-2 |
| 3. ISLAND | Oahu |
| 4. TMK | 026 030 |

The following must be attached before this application is accepted as complete:
- Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For dug wells, attach a grading plan with cross section profiles showing existing and finish grades

5. WELL OPERATOR’S NAME/COMPANY | Covanta Honolulu Resource Recovery Venture |
6. WELL OPERATOR’S Contact | Glen Kashiwabara |
7. LANDOWNER’S NAME/COMPANY | City and County of Honolulu |
8. LANDOWNER’S Contact | Stephen Langham |

PROPOSED WELL CONSTRUCTION

| 7. Proposed Work | D Construct New Well | D Modify Existing Well | D Abandon/Seal Well |
| D Drilled | D Dug | D Shaft | D Tunnel |

PROPOSED PUMP INSTALLATION

| 11. Proposed Pumping Rate, gpm | 2319 gpm |
| 12. Proposed Amount of Withdrawal, gpd (gallons per day) | 3.34 million gallons per day (total withdrawal from 2 wells) |

WELL LOCATION INFORMATION

| 9. Is this well part of a battery of wells? | D Yes | D No |

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

PROPOSED USE

| 15. Municipal (water systems serving greater than 25 individuals or 15 service connections) |
| 16. Domestic Number of units to be served: | |
| 17. Industrial (describe) | Supply Well Pump for Energy from Waste Facility - Increase Flow Rate for Expansion of a 3rd Boiler, Cooling/Boiler |
| 18. Irrigation (describe crop and no. of acres) |
| 19. Military (describe) |
| 20. Other (describe) |

OTHER LEGAL REQUIREMENTS

If required, items 21 and 22 must be obtained before the Commission can legally issue a permit:

| 21. Conservation District Use Permit (CDUP) | D Well is in Conservation District |
| D Required, CDUP # | date approved |
| D Not Required (attach documentation from OCCC) |
| D I have not checked with OCCC about whether or not a CDUP is required. I understand that checking with OCCC prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued. |

| 22. Special Management Area Permit (SMAP) | D Well is in Conservation District |
| D Required, SMA # | date approved |
| D Not Required (attach documentation from applicable County agency) |
| D I have not checked with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued. |

| 23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources | D I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD. |
| D I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued. Additionally, the history of past land use is attached. |

Additional remarks, explanations, etc. (attach additional sheet if more space is needed) Proposed pump installation is not in an SMA area

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge.

Further, the signatories understand that upon permit approval: 1) the proposed work to be completed within two (2) years of the approval date, 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $5000/day.

24. WELL DRiller (must be filled out if application is for Well Construction)

Licensee business name C-57 License No. C-57/C-57a
Signature Print Date

25. PUMP INSTALLER (must be filled out if application is for Pump Installation)

Licensee business name C-57/C-57a License No. C-57/C-57a
Signature Print Date

WCPI Application Form 02/26/2007
**PROPOSED WELL SECTION**

(please attach schematic if different from diagram provided below)

**Elevation at top of casing**: 12 ft., msl*

**Hole Diameter**: 24 in.

**Minimum of 2" Radius & 4" Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft)**

**Ground Elevation**: 12.83 ft., msl*

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**Cement Grout**: 47 ft.
(min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)

**Annular space between hole and casing (1.0' for positive displacement, 3' for other methods)**: 3 in.

**Rock or Gravel Packing**: 53 ft.

**Material**:
- Crushed Basalt
- Rounded Gravel

**Estimated Water Level Elevation**: 0 ft., msl*

---

**Solid Casing**: (≥ 0.90% x (Ground Elev.-Water Level Elev))
- **Total Length**: 50 ft.
- **Nominal Diameter**: 18 in.
- **Wall Thickness**: varies in.
- **Bottom Elevation**: -38 ft., msl*

**Open Casing**:
- **Perforated**
- **Screen**
- **Total Length**: 50 ft.
- **Nominal Diameter**: 18 in.
- **Wall Thickness**: varies in.
- **Bottom Elevation**: -88 ft., msl*

*Note: Neither bentonite nor mud should be used in saturated zone during drilling*

---

**Solid Casing Material**:

**Carbon Steel**: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec 5L □ ASTM A53 □ ASTM A139
And compliant with (check one or more): □ ASTM A242 (or A606) □ Type E □ Type S □ Grade B □ Other

**Stainless Steel**: (check one):
- □ ASTM A409 (production wells)
- □ ASTM A312 (monitor wells)

**ABS Plastic** conforming to ASTM F480 and ASTM D1527: (check one):
- □ Schedule 40 □ Schedule 80

**Thermoset Plastic**: (check one):
- □ Filament Wound Resin Pipe conforming to ASTM D2996
- □ Centrifugally Cast Resin Pipe conforming to ASTM D2997
- □ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- □ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
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- □ FEP Fluorocarbon Tubing conforming to ASTM D3299

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---

*The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.*

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = \( \frac{4}{1} \times \text{Water Elevation} \)

Example: Estimated + 2 ft. Water Level Elev. => Bottom Elevation of Well Limit = \( \left( \frac{4}{1} \times 2 \right) \) = -18.5 ft.

---

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3. ISLAND The island name that the well is located on.
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7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
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PROPOSED USE
15. Municipal Use is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term “domestic use”.
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20. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS
21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (http://www.hawaii.gov/dlnr/dld/maps/sludging or call 588-3737). If the well is not in a CD, then you may check not in a CD box. If the well site is in a CD you will need to then determine if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCL) of DLNR.
22. Special Management Area Permit (SMAP) To determine if an SMAP is necessary, enter.
23. Historic Preservation review if the parcel(s) affected by construction (well location/access road/infrastructure for well) has been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHPD) or through an OEOC Environmental Review, Special Management Area Permit, etc., check “yes” and attach any relevant documentation from SHPD. If the affected parcel(s) has not undergone SHPD review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Please note: You are strongly advised to contact the SHPD to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHPD’s concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHPD, please call

SIGNATURES
24. Well Driller This section must be filled out completely for the Well Construction Permit application to be accepted as complete.
25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.
<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Responsible Party</th>
<th>Legal Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ensure that if items 21 to 23 of the application are required, that they are obtained prior to applying for a permit. Otherwise, post-application comments obtained from these agencies may delay processing of your application.</td>
<td>Applicant</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Application for Well Construction (or modification) and/or Pump Installation (or replacement with larger capacity than existing pump - see note B below).</td>
<td>Licensed Well Driller (for Well Construction) and/or Licensed Pump Contractor (for Pump Installation) (See note C below)</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Issuance of Well Construction Permit to Well Driller (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies’ legal requirements. (See note A below)</td>
</tr>
<tr>
<td>4</td>
<td>Issuance of Pump Installation Permit to Pump installer (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies’ legal requirements. (See note A below)</td>
</tr>
<tr>
<td>5</td>
<td>Execute/Sign Permit.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Before work activity begins.</td>
</tr>
<tr>
<td>6</td>
<td>Start of Work Notice.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>2 weeks prior to beginning of work activity.</td>
</tr>
<tr>
<td>7</td>
<td>Post copy of permit at the work site.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>During entire period of work activity at the site.</td>
</tr>
<tr>
<td>8</td>
<td>Construction of well: Note: a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work. b) If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e., go back to step 1 above).</td>
<td>Licensed Well Driller</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>9</td>
<td>Installation of a temporary test pump that can adequately conduct a step-drawdown test (if proposed pump&gt;70 gpm).</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>10</td>
<td>Installation of permanent pump.</td>
<td>Licensed Pump Installer</td>
<td>Within 2 years of issuance of Pump Installation Permit.</td>
</tr>
<tr>
<td>11</td>
<td>Application for permit extension (if required).</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>12</td>
<td>Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM.</td>
<td>Licensed Well Driller</td>
<td>Within 60 days of completion of Well Construction (the date that ALL aspects of Well Completion Report Part I can be filled in).</td>
</tr>
<tr>
<td>13</td>
<td>Well Completion Report Part II to be returned to CWRM.</td>
<td>Licensed Pump Installer</td>
<td>Within 60 days of completion of Pump Installation (the date that ALL aspects of Well Completion Report Part II can be filled in).</td>
</tr>
<tr>
<td>14</td>
<td>Acceptance of Well Completion Report Part I; Elevation Survey.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>15</td>
<td>Issuance of Certificate of Well Construction Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance of Well Completion Report Part II.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>17</td>
<td>Issuance of Certificate of Pump Installation Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>18</td>
<td>Pumpage may commence, Water Use Reporting required.</td>
<td>Well Operator</td>
<td>Monthly recording.</td>
</tr>
<tr>
<td>19</td>
<td>Abandonment (initiated in Step 2 of process).</td>
<td>Landowner</td>
<td>Until well sealed.</td>
</tr>
</tbody>
</table>

NOTES:
A. For non-compliance of other agencies’ legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.
B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).
C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
Site Map
H-Power Application for Pump Installation Permit.
Site Photographs of the Sources and Locations of Proposed End Uses
H-Power Application for Pump Installation Permit.
Mr. S. Samuel Joshi, PE, QEP  
Manager, Environmental Engineering  
Covanta Honolulu Resource Recovery Venture  
c/o Covanta Energy Corporation

Dear Mr. Joshi:

Subject: Draft Environmental Impact Statement  
H-Power Third Boiler Expansion Project  
91-174 Hanua Street – Campbell Industrial Park  
Tax Map Key 9-1-26: 30

This is in response to your request, received January 30, 2009, for comments concerning the Draft Environmental Impact Statement (DEIS) for the subject project.

The project site, as well as the adjoining parcels to be used for construction lay-down (Tax Map Key 9-1-26: 33 and 34), are not located in the Special Management Area (SMA) or the shoreline setback, and will not require an SMA permit or shoreline setback variance.

Please note that the project does not require a modification to Conditional Use Permit (CUP) No. 89/CUP1-17, as stated in Section 3.0, "Required Approvals and Permits," of the DEIS. Since the H-Power facility is now owned and operated by the City, it is thus considered to be a "public use and structure" for purposes of the Land Use Ordinance (LUO); and, as such is a permitted use in all zoning districts. When the CUP had originally been issued, the use was then classified as a "utility installation, Type B," since at that time it had been privately owned and operated.

The project will need to obtain an approved zoning waiver, pursuant to LUO Section 21-2.130(a)(1), for any portion of the project which will exceed the maximum 60-foot zoning height for the site.
Thank you for the opportunity to comment on the DEIS. Please contact Blake La Benz of our staff at [REDACTED] for any questions.

Very truly yours,

David K. Tanoue, Director
Department of Planning and Permitting

DKT:fm
cc:   Department of Environmental Services
      Office of Environmental Quality Control
      AMEC Earth & Environmental, Inc.
March 16, 2009

Mr. S. Samuel Joshi  
Covanta Energy Corporation  

Dear Mr. Joshi:

TMK: (I) 9-026-030, 033, 034

Thank you for the opportunity to review this DRAFT Environmental Impact Statement, which we received via CD on January 28, 2009.

The H-POWER site is located in the Campbell Industrial Park at Kalaeloa [formerly called Barbers Point or Barber’s Point]. The H-POWER facility, which began operation in May 1990, is operated by Covanta Honolulu Resource Recovery Venture (CHRRV) on behalf of the City and County of Honolulu.

This project will entail the expansion of the current H-POWER facility onto parcels 33 and 34 adjacent to the current facility. They are currently vacant. A garden for endemic plants and the site for the reburial of a single human burial previously discovered when the initial facility was built in the 1980’s area present on the site. Because of the possibility that sinkholes prevalent in this portion of ‘Ewa could contain historic properties, an archaeological and cultural impact assessment study in support of the proposed expansion on 24.635 acres of industrially zoned land was undertaken to determine the presence or absence of historic properties (ARCHAEOLOGICAL AND CULTURAL IMPACT ASSESSMENTS FOR THE PROPOSED H-POWER EXPANSION PROJECT, HONO‘ULI‘ULI AHUPUA‘A, ‘EWA DISTRICT, ISLAND OF O‘AHU, TMK: (1) 9-1-026:30, 33, AND 34 [McCoy and Clark, September 2008]).

There is evidence that large portions of Parcels 33 and 34 have been grubbed and graded. Clearing may have occurred on more than one occasion. Aerial photographs suggest that the land clearing project undertaken by Campbell Estate in the early 1960s on Parcel 30 and documented during the archaeological reconnaissance survey in 1983 also included Parcels 33 and 34.

No historic properties were recorded during this archaeological assessment; however, it is recommended that precautionary monitoring be performed during any ground disturbing activities. We find that there are no historic properties affected by this project.

Please call Wendy Tolleson at [blank] if there are any questions or concerns regarding this letter.
Aloha,

Nancy A. McMahon (Deputy SHPO)
State Historic Preservation Officer

CC:

Mr. Stephen Langham
Environmental Services Refuse Division, H_POWER

ENV Director
City and County of Honolulu
Department of Environmental Services

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

Permit Information

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water User</td>
<td>Honolulu Resource Recovery Vent</td>
</tr>
<tr>
<td>Landowner of Source</td>
<td>Department of Public Works City &amp; County of Honolulu</td>
</tr>
<tr>
<td>Permitted Withdrawal Rate</td>
<td>2.260 mgd (Based upon a 12-month moving average)</td>
</tr>
<tr>
<td>Island</td>
<td>Oahu</td>
</tr>
<tr>
<td>Aquifer Sector/System</td>
<td>Ewa Caprock/Malakole</td>
</tr>
<tr>
<td>System Sustainable Yield</td>
<td>1000 mg/l</td>
</tr>
<tr>
<td>Water Type</td>
<td>Brackish, Non-Potable</td>
</tr>
<tr>
<td>Original CWRM Date</td>
<td>October 11th, 1985</td>
</tr>
<tr>
<td>Standard Conditions</td>
<td>1, 4, 9, 10, 20, 27</td>
</tr>
<tr>
<td>Special Conditions</td>
<td>51</td>
</tr>
</tbody>
</table>

Water Source

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Well Number(s)</td>
<td>1806-09, 1806-10</td>
</tr>
<tr>
<td>Well Name</td>
<td>DPW #1-2</td>
</tr>
<tr>
<td>Water Source TMK Number(s)</td>
<td>1st Division, 9-1-026:030</td>
</tr>
<tr>
<td>State Land Use Classification</td>
<td>Urban</td>
</tr>
<tr>
<td>County Zoning Classification</td>
<td>I-2</td>
</tr>
<tr>
<td>Geographical Coordinates</td>
<td>N/A</td>
</tr>
</tbody>
</table>

End Use

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>End Use TMK Number(s)</td>
<td>1st Division, 9-1-026:030</td>
</tr>
<tr>
<td>State Land Use Classification</td>
<td>Urban</td>
</tr>
<tr>
<td>County Zoning Classification</td>
<td>I-2</td>
</tr>
</tbody>
</table>
Beneficial Use Explanation: Use for makeup water for cooling tower system

Background Information

Consistent water use reporting records are available for at least the past four years. The permittee's 12-month moving average has not exceeded the permitted amount of 2.260 mgd during this time. There are no salinity records on file for State Well Nos. 1806-09 and 1806-10. Although no salinity records are on file, the variation of Standard Condition (10) associated with this permit does not mandate salinity reporting. Reference the permit file for additional information on reporting history.

Water Use Permit 062 was approved during the October 11th, 1985 Commission on Water Resource Management meeting. Standard conditions 1, 4, 9, 10, 20 & 27 and special condition 51 are the governing conditions for this water use permit. A complete list of all standard and special conditions is given in the permit file.

Field Investigation Information

No field investigation was conducted for Water Use Permit 062. Brown and Caldwell attempted to contact the permittee on three different occasions via standard mail. Cover letters accompanied by survey forms were sent out on November 21st, 2007, February 20th, 2008, and May 6th, 2008. The first two letters were incorrectly sent to 567 S. King Street, Honolulu, HI 96813. A third letter with corrected contact information was sent to 91-174 Hanua Street, Kapolei, HI 96707. Since no response was received by the end of the field investigation phase of this project, Brown and Caldwell was not able to verify any of the information listed in this report. Reference the permit file for supporting documentation relevant to this contact process.

Summary of Findings for Water Use Permit No. 062

Although no field investigation was completed for this Water Use Permit, information pertinent to permit compliance was gathered during the research phase of this project.

Based upon records on file, it appears that the permittee is in compliance with all standard and special conditions listed in Water Use Permit 062. However, a follow-up field investigation should be conducted to verify this conclusion.
Recommendations

• Address the following discrepancies between the Commission’s electronic database and actual field investigation findings:
  o Water source and end use TMK parcel numbers
  o State land use and county zoning classifications
• Address issue of lack of response in regards to the Commission’s attempt to contact the permittee during this permit review process.
Standard Conditions List

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

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

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

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

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

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

7. The water use permit application and submittal, as amended, approved by the Commission at its <Insert Date> meeting are incorporated into this permit by reference.

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

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

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

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

Variations of Standard Condition (10) are as follows:
   i. The applicant shall keep monthly pumpage estimates to be submitted annually to the Commission.
   ii. An approved flowmeter(s) need not be installed to measure monthly withdrawals and a monthly record of withdrawals, salinity, temperature, and pumping times must be kept and reported to the Commission on Water Resource Management on forms provided by the Commission on a yearly basis (attached).
   iii. An approved flowmeter(s) must be installed to measure withdrawals and a monthly record of withdrawals, water-levels, salinity, and temperature must be kept and reported to the Commission on a monthly basis in accordance with the Commission's September 16, 1992 action on reporting requirements.
   iv. Approved flowmeters must be installed to measure monthly withdrawals and a monthly record of withdrawals must be kept and reported to the Commission on Water Resource Management on a monthly basis.
   v. An approved flowmeter(s) must be installed to measure monthly withdrawals and a monthly record of withdrawals, salinity, temperature, and pumping times must be kept and reported to the Commission on Water Resource Management on forms provided by the Commission on a quarterly/yearly basis (attached).
   vi. An approved flowmeter shall be installed to measure water withdrawals.
   vii. An approved flowmeter(s) must be installed to measure withdrawals; and a record of the withdrawals must be kept and reported to the Department of
Land and Natural Resources, Division of Water and Land Development, P.O. Box 373, Honolulu, HI 96809, on a monthly basis.

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

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

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

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

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

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

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

12. A permit may be transferred, in whole or in part, from the permittee to another, if:
   a. The conditions of use of the permit, including, but not limited to, place, quantity, and purpose of use, remain the same; and
   b. The Commission is informed of the transfer within ninety days.

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

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

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

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

16. The permittee shall prepare and submit a water shortage plan within 30 days of the issuance of this permit as required by HAR § 13-171-42(c). The permittee’s water shortage plan shall identify what the permittee is willing to do should the Commission declare a water shortage in the Ground-Water Management Area.

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

18. The permittee understands that any willful violation of any of the above conditions or any provisions of HRS § 174C or HAR § 13-171 may result in the suspension or revocation of this permit.

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

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

Variations of Standard Condition (20) are as follows:

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

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

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

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

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

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

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

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

1. Should an alternate permanent source of water be found for this use, then the Commission reserves the right to revoke this permit, after a hearing.

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

3. The applicant shall contact the Environmental Management Division, State Department of Health, at 586-4304, concerning “GUIDELINES APPLICABLE TO GOLF COURSES IN HAWAII” date <Insert Date & Version #>.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

20. Standard Condition 16 is waived for saltwater wells.

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

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

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

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

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

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

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

28. The applicant shall follow the agreed monitoring plan.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

66. WUP No. <Insert #> is revoked

67. Standard Condition 17 is waived.

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

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

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

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

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

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

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

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

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

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

78. Standard Condition 9 is waived.

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

80. Standard Condition 10 is waived.

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

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

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

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

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

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

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

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

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

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

92. Standard Condition 7 shall not apply.

93. Standard Condition 22 shall not apply.

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

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

96. HECO 1 mgd for industrial use

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

98. BWS 1 mgd for municipal use.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

119. Standard Conditions 10 & 18 shall not apply.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

143. Proposed other uses will be considered at a later date.
November 21st, 2007

Robert Webster
Honolulu Resource Recovery Vent

Subject: WUP 062

Water Use Permit Review

In accordance with 13-171-22(b) of the Hawaii Revised Statutes, the Commission on Water Resource Management is required to conduct a 20 year permit review of issued permits to determine permit compliance. As a permit holder, we are contacting you to conduct a review of your water use permit.

As part of the permit review, we must perform field investigations for verification purposes. We have contracted with Brown and Caldwell to conduct such field investigations. Please fill out the enclosed survey form, indicating the best date and time within the time period given, and a representative from Brown and Caldwell will contact you to make further field visit arrangements.

We thank you for your cooperation in promoting beneficial and reasonable use of our ground water while protecting our limited natural supply.

Sincerely,

KEN C. KAWAHARA, P.E.
Deputy Director
February 20th, 2008

Water Use Permit Holder

Subject: WUP 062

Second Notice of Water Use Permit Review

In accordance with §174C-56 of the Hawaii Revised Statutes and 13-171-22(b), Hawaii Administrative Rules, the Commission on Water Resource Management is required to conduct a 20-year permit review of issued permits to determine permit compliance and prepare a formal report to legislature for public review. As a water use permit holder, we are notifying you of this statutory requirement and are asking for your help in the review of your water use permit.

As part of the permit review, we must perform field investigations for verification purposes. We have contracted with Brown and Caldwell to conduct such field investigations. Please fill out the enclosed survey form, indicating the best date and time within the time period given, and return the form via mail to Brown and Caldwell. A representative from Brown and Caldwell will then contact you to make further field visit arrangements.

Please note that this is the second notice that we are sending to attempt to make contact with you. If we cannot conduct a field investigation to verify your water use, we may commence proceedings to revoke your permit. Once your permit is revoked, you will no longer be able to use ground water from your well. Upon revocation, any water use without a valid permit will be subject to fines of up to $5,000 per day. As such, it is in your best interest to return the form to Brown and Caldwell as soon as possible.

We thank you for your cooperation in promoting beneficial and reasonable use of our ground water while protecting our limited natural supply.

Sincerely,

KEN C. KAWAHARA, P.E.
Deputy Director
May 6th, 2008

Water Use Permit Holder

Subject: WUP 062

Second Notice of Water Use Permit Review

In accordance with §174C-56 of the Hawaii Revised Statutes and 13-171-22(b), Hawaii Administrative Rules, the Commission on Water Resource Management is required to conduct a 20-year permit review of issued permits to determine permit compliance and prepare a formal report to legislature for public review. As a water use permit holder, we are notifying you of this statutory requirement and are asking for your help in the review of your water use permit.

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Please note that this is the second notice that we are sending to attempt to make contact with you. If we cannot conduct a field investigation to verify your water use, we may commence proceedings to revoke your permit. Once your permit is revoked, you will no longer be able to use ground water from your well. Upon revocation, any water use without a valid permit will be subject to fines of up to $5,000 per day. As such, it is in your best interest to return the form to Brown and Caldwell as soon as possible.

We thank you for your cooperation in promoting beneficial and reasonable use of our ground water while protecting our limited natural supply.

Sincerely,

KEN C. KAWAHARA, P.E.
Deputy Director
January 31, 2005

Mr. Robert A. Webster
Facilities Manager
Honolulu Resource Recovery Venture

Dear Mr. Webster:

Water Use Permit No. 62 for Well Nos. 1806-09 & 10

This is in response to a January 27, 2005 telephone call from Mr. Glenn Kashiwabara, inquiring as to the status of the subject water use permit. This permit was approved by the Board of Land and Natural Resources (BLNR) at its meeting on October 11, 1985 under Chapter 177, Hawaii Revised Statutes (HRS). An Additional Condition of the permit specifies that the term of the permit shall be twenty years from the date of issuance, subject to review and adjustment every five years.

Following the repeal of Chapter 177 HRS, effective 7/1/89, and its replacement with Chapter 174C HRS, certified water uses and permitted water uses approved by the BLNR are recognized by the Commission on Water Resource Management (Commission) as permanent water use permits. The permits will remain active until the Commission conducts a compliance review, as provided in Section 174C-56 HRS:

"At least once every twenty years, the commission shall conduct a comprehensive study of all permits issued under this chapter to determine whether the conditions on such permits are being complied with. The commission shall prepare a formal report to the legislature which shall be available to the public."

The Commission anticipates conducting this review in the 2006-2007 timeframe with a formal report to the legislature by May 2008. Until such time that a review and formal report are made, Water Use Permit No. 62 for Well Nos. 1806-09 & 10 will remain active, unless a prior modification or revocation action is initiated by either the Commission or the permittee.

Sincerely,

[Signature]

YVONNE Y. IZU
Deputy Director

LYN:ss

c: Glenn Kashiwabara, Honolulu Resource Recovery Venture
DEPARTMENT OF LAND AND NATURAL RESOURCES

PERMIT

TO WITHDRAW AND USE GROUND WATER

Applicant: City & County of Honolulu Application Date: September 3, 1985
Address: Dept. of Public Works, [Redacted]
Ground Water Control Area: Pearl Harbor Subarea: Caprock
Well(s) Name: [Redacted] State Well No.(s): 1806-09, 10
Amount of Withdrawal: (Average Annual) 2.26 mgd (Max. Day) 2.26 mgd
Beneficial Purpose of Withdrawal: Industrial
Area or Projects Served: Honolulu Resource Recovery Project

The applicant is hereby granted a permit to withdraw and use ground water from the source identified above, in accordance with Chapter 177, HRS, Administrative Rule, Chapter 166 of Title 13; and the following:

General Conditions. (1) the water use authorized by this permit must be for the beneficial purpose described in this permit; (2) the use must not interfere substantially and materially with existing individual household uses, existing preserved uses, or existing permitted uses; (3) the use is subject to the shortage and emergency powers of the Board of Land and Natural Resources; (4) this permit may be suspended or revoked in accordance with Chapter 166 of Title 13; (5) the permit holder may be required to relinquish this permit at any time or specified time after issuance to the Board of Land and Natural Resources in accordance with Chapter 166 of Title 13; (6) an approved flowmeter(s) must be installed to measure withdrawals; and a record of the withdrawals must be kept and reported to the Department of Land and Natural Resources, Division of Water and Land Development, [Redacted], on a monthly basis.

Additional Conditions.

The term of the permit shall be twenty years from the date of issuance, subject to review and adjustment every five years.

The development of the ground water source shall be completed within 24 months from the date of permit issuance.

The issuance of this permit was approved by the Board of Land and Natural Resources at its meeting on October 11, 1985

Chairperson of the Board

Date of Issuance: 10/21/85
**COMMISSION ON WATER RESOURCE MANAGEMENT**  
**ROUTE SLIP FOR NEW APPLICATIONS**

**FROM:** DENISE  
DENISE CHING, F.  
HIGA, D.  
HOAGBIN, S.  
ICE, C.  
IMATA, R.  
KAWAHARA, K.  
KUNIMURA, I.  
MILLS, D.  
NAKAMA, L.  
OHYE, M.  
SAKODE, E.  
SWANSON, S.  
UYENO, D.  
YODA, K.  
YOSHINAGA, M.

**DATE:** 18-Jun-09  
**SUSPENSE DATE:** 25-Jun-09

**TO:**  
CHING, F.  
FUJII, N.  
GOODING, K.  
HARDY, R.  
HIGA, D.  
HOAGBIN, S.  
ICE, C.  
IMATA, R.  
KAWAHARA, K.

**PLEASE:**  
1 Approval  
2 Signature  
3 Information

**WELL NUMBER** 1806-09&10  
**WELL NAME** SW-1, SW-2  
**WUP Number** 863

- WELL CONSTRUCTION
- PUMP INSTALLATION
- WUPA

**ATTACHMENTS FOR APPLICATION PROCESSING** - Both applicant & staff generated
1 TRANS. LETTER
2 PERMIT PROCESS TABLE
3 CWRM MAP
4 APPL. FORM (11 COPIES)
5 USGS MAPS (11 COPIES)
6 TAX MAPS (11 COPIES)
7 PARCEL OWNER VERIF.
8 CONTRACTOR VERIF.
9 ALL INFO FILLED IN
10 BACKGROUND CHECK
11 25$ FEE DEPOSIT SLIP
12 DHP/CDUP/SMA pre-screen

- MLS PRINTOUT
- USGS MAPS (11 COPIES)
- TAX MAPS (11 COPIES)
- CONTRACTOR VERIF.
- ALL INFO FILLED IN
- BACKGROUND CHECK
- 25$ FEE DEPOSIT SLIP
- DHP/CDUP/SMA pre-screen

**FOLDER:**  
MADE NEW FILE FOLDER, ATTACHED
FILE FOLDER ALREADY MADE, IN FILE CABINET

**INCOMPLETE ACTION DATES:**

<table>
<thead>
<tr>
<th>DATE</th>
<th>ACTION</th>
</tr>
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<tbody>
<tr>
<td>6/23/09</td>
<td>1. TR Requestive Water Level Data - Not on application &amp; reported W.L. on Wiles appears to be pumping level (-13 ft) (same in every report).</td>
</tr>
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<td>Mineral clarification - it's OK.</td>
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<td>Then to S. Hoagbin. All ok.</td>
</tr>
<tr>
<td>9/1-026:018 (1982)</td>
<td>* I know C &amp; C contract Blake &amp; Bury well,</td>
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<td>* MK changed? (though consistent on WUP)</td>
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**WE)**
Mr. Samuel Joshi, PE, QEP  
Covanta Energy

Dear Mr. Joshi:

Pump Installation Permit Application for Well No. 1806-09 and -10

We have received your Pump Installation permit applications and filing fee for Wells SW-1 and SW-2 (Well Nos. 1806-09 and -10). However, your applications are incomplete, as explained below.

1. You must provide water level data for both wells to complete the applications. Our records show that the initial water level, reported in 1986, in 1806-09 was 0.3 feet above mean sea level (ft-msl) and 0.2 ft-msl in 1806-10. Since May 2005, the water level reported on Covanta’s monthly water use reports is -13 ft-msl; no other values have ever been reported. The data that should be reported to the Commission on the water use reports should be the non-pumping water level; however, -13 ft-msl appears to be consistent with a pumping level, or the reported value is incorrect. It is possible that this water level is the result of simultaneous pumping of and interferences from several of the other industrial wells in the area (e.g., at the HECO or AES facilities). It is also possible that the reported value is the depth to water in the well, uncorrected for the distance from the measuring point to the depth to water to calculate the ground water elevation. Our record shows that data collected during a step-drawdown test when the wells were constructed in 1986 shows that at the highest pumping rates the drawdown measured in Well No. 1806-09 was 1.8 feet (maximum discharge rate, 3,030 gallons per minute) and 4.7 feet in Well No. 1806-10 (maximum discharge rate, 3,070 gpm).

**Action required:** Please check the water level data for both wells and then provide the correct data to the Commission so that this information can be added on page 2 of your pump installation permit applications. Upon receiving this information, we will also be able to correct Covanta’s water use reporting records, if necessary.

2. Pursuant to the State Water Code, HRS § 174C-84(a), the Commission can only issue pump installation permits to contractors who hold valid a C-57, C-57a or A license issued by the State of Hawaii, Department of Commerce and Consumer Affairs, Professional and Vocational Licensing Division. Because you have not identified a qualifying contractor, your applications will not be accepted as complete until a qualifying contractor signs and completes Item 25 on both pump installation permit applications.
We can, however, process your incomplete applications for review, following receipt of the requested water level information for both wells. If the review warrants the issuance of a permit, we will send such notice to you and give you the option to receive a letter of assurance in lieu of the permit. A letter of assurance, if issued, will state that we will issue the permits after your contractor signs the original application, subject to the following conditions: (a) the contractor has no outstanding issues with the Commission; (b) there have been no significant changes to the application, proposed well site or well construction plan; (c) there have been no significant changes to applicable laws, rules, regulations; and (d) there have been no significant changes to hydrologic conditions at the proposed well site.

Upon receipt of the above information we will accept your application as complete and you can then expect your application to be processed within ninety (90) days.

By this acceptance letter, we are also notifying the well operator/landowner that water may not be pumped for purposes other than testing until the certificate of pump installation completion letter is issued to the well operator and landowner even though there is a water use permit (WUP No. 863) that allows the reasonable and beneficial use of these sources. Additionally, the permitted pump capacity described on the pump installation permit may be reduced in the event that the pump test does not support the capacity. No certificate of pump installation will be issued until the Commission has determined that the pump capacity will not have adverse effects on the aquifer, other nearby wells, or streams. In other words, you may need to remove the pump and install a smaller pump at the Commission’s discretion before you can withdraw water for purposes other than testing.

If you have any questions about your permit application, please contact Denise Mills of the Commission staff at

Sincerely,

K. C. KAWAHARA, P.E.
Deputy Director

DEM:ss

c: Glen Kashiwabara, Covanta Honolulu Resource Recovery Venture
    Stephen Langham, City and County of Honolulu
    Russell Okoji, AMEC (Honolulu)
INSTRUCTIONS: Please TYPE OR PRINT CLEARLY. Complete this form to report total monthly ground water use, and, if required, other information from each of your well sources. Mail to: Commission on Water Resource Management.

Other comments or additional information (e.g., date and method of chloride measurement, how pumpage amounts are estimated, etc.):
Chlorides and temperature were measured on 10/7/08 as part of the HDOH quarterly UIC permit (UO-1376). EPA Method 300 was used to determine the chloride levels. We are purchasing a water meter to measure salinity, temperature and pH. The meter should arrive by late January or early February. There is no access to the wells at this time to check the water level.

Submitted by: Robert A. Webster

Signature: [Signature]

Date: 1/16/09

Search criteria: TMK Taxkey 1-9-1-26-30

<table>
<thead>
<tr>
<th>Taxkey</th>
<th>Subdiv/Condo Tnr Address Owner/Lessee</th>
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<td>ST CONN BANK &amp; TR CO NATL ASSN/ETAL</td>
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This information has been supplied by third parties and has not been independently verified by Hawaii Information Service and is, therefore, not guaranteed.
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<th>AMOUNT</th>
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<td>(1) $25.00</td>
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<tr>
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<td>Valley Well Drilling</td>
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<td>&quot; &quot; &quot; &quot; &quot;</td>
<td>(10)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL** $200.00

**REMARKS:**
- LINE (1) Kim Well
- LINE (2) Spreckelsville-Fleischer
- LINE (3) SW-1 Well
- LINE (4) NELHA Monitor Wells
- LINE (5)
- LINE (6)
- LINE (7)
- LINE (8)
- LINE (9)
- LINE (10)
May 27, 2009

State of Hawaii
Department of Land and Natural Resources
Commission on Water Resource Management

Re: Application for Pump Installation Permit
Well No. 1806-09 and 1806-10

To Whom It May Concern:

Covanta Honolulu Resource Recovery Venture (CHRRV) has been contracted by the City and County of Honolulu Department of Environmental Services to expand the H-POWER facility. CHRRV has in turn contracted with AMEC Earth & Environmental, Inc. (AMEC) to support the environmental permitting process including obtaining approval to replace the facility’s existing caprock supply well pumps.

CHRRV and AMEC are pleased to submit 11 copies of the attached Pump Installation Permit Application to the State of Hawaii Commission on Water Resource Management to support the H-POWER Expansion project. The expansion project consists of adding a third municipal waste combustor unit to the existing 2 (two) refuse derived fuel (RDF) combustors. This expansion requires replacement of the two existing pumps to allow for an increase in flow volume from the two currently permitted and existing caprock supply wells. No new wells are to be constructed. The H-POWER facility is located in the Campbell Industrial Park area of Honolulu County, Hawaii.

Enclosed are the Pump Installation Permit Application, required attachments, and figures describing the proposed project. We hope that the information provided is sufficient for your approval.

If you have any questions regarding the enclosed please feel free to call me directly at [contact information]

Sincerely,

[Signature]

S. Samuel Joshi, PE, QEP
Manager, Environmental Engineering
Covanta Energy Corporation

enclosures: Applications for Pump Installation Permit
Figure 1 - Site Map
Figure 2 - TMK Map
Figure 3 - Site Photographs of Sources and Locations of Proposed End Uses
Correspondence Letters
STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 120541, Honolulu. Application must be accompanied by 10 copies and 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 ______ For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/wrm.

WELL LOCATION INFORMATION
1. STATE WELL NO. (If already assigned)  1806-09
2. WELL NAME
SW-1
3. ISLAND  Oahu
4. TMK  9-1-026-030

The following must be attached before this application is accepted as complete:
• Portion of 7.5-Minute Series U.S.G.S. topographic map (scale 1:24,000) with well location labeled and include the name of the quadrangle
• Property tax map, showing well location referenced to established property boundaries
• Photograph of the proposed well site
• A schematic diagram showing the well site, access road and proposed well infrastructure
• For dug wells, attach a grading plan with cross section profiles showing existing and finished grade

5. WELL OPERATOR'S NAME/COMPANY  Covanita Honolulu Resource Recovery Venture
Well Operator's Contact  Glen Kashiwabara
6. LANDOWNER'S NAME/COMPANY  Landowner's Contact
City and County of Honolulu  Stephen Langham
Landowner's Mailing Address

PROPOSED WELL CONSTRUCTION
7. Proposed Work
☐ Construct New Well
☐ Modify Existing Well
☐ Abandon/Seal Well
8. Construction Type
☐ Drilled
☐ Dug
☐ Shaft
☐ Tunnel

PROPOSED PUMP INSTALLATION
10. Proposed Work
☐ Install New Pump
☐ Replace Pump
11. Proposed Pumping Rate, gpm (gallons per minute)
2319 gpm
12. Proposed Amount of Withdrawal, gpd (gallons per day)
3.34 million gallons per day (total withdrawal from 2 wells)
13. Method of flow measurement
☐ Flowmeter
☐ Other (explain)

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

PROPOSED USE
☐ 15. Municipal (water systems serving greater than 25 individuals or 15 service connections)
☐ 16. Domestic
Number of units to be served: __________________
☐ 17. Industrial (describe)  Supply Well Pump for Energy from Waste Facility - Increase Flow Rate for Expansion of a 3rd Boiler, Cooling/Boiler
☐ 18. Irrigation (describe crop and no. of acres)
☐ 19. Military (describe)
☐ 20. Other (describe)

OTHER LEGAL REQUIREMENTS
If required, items 21. and 22. must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)
☐ Well is in Conservation District
☐ Required, CDUP # __________________
☐ Not Required (attach documentation from OCCl)
☐ I have not checked with OCCl about whether or not a CDUP is required. I understand that checking with OCCl prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.
☐ Well is not in Conservation District
☐ I have not checked if the well is in or out of Conservation District. I understand that checking if the well is in a Conservation District may expedite my review. I further understand that issues raised may delay or may in denial of the permit issuance, or revocation of the permit after it is issued.

22. Special Management Area Permit (SMA)
☐ Required, SMA # __________________
☐ Not Required (attach documentation from applicable County agency)
☐ I have not checked with the County about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

Additional remarks, explanations, etc. (attach additional sheet if more space is needed)

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $500/day.

24. WELL DRILLER (Must be filed out if application is for Well Construction)

Licensee business name
C-57 License No.

Signature  Print  Date

25. PUMP INSTALLER (Must be filed out if application is for Pump Installation)
Will be provided at the time the Contractor is Selected

Licensee business name
C-57C-57a License No.

Signature  Print  Date

WCPi Application Form 02/26/2007
PROPOSED WELL SECTION

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or,
Bottom Elevation of Well Limit = \( \frac{\text{Water Elevation} - 0.25 \times \text{Aquifer Thickness}}{4} \)

Example: Estimated + 2 ft. Water Level Elev. =\( \frac{\text{Bottom Elevation of Well Limit} = \left( \frac{\text{Water Elevation} - 0.25 \times \text{Aquifer Thickness}}{4} \right)}{-18.5 \text{ ft.}} \)

Solid Casing Material:
Carbon Steel: compliant with (check one or more): [ ] ANSI/AWWA C200 [ ] API Spec. 5L [ ] ASTM A53 [ ] ASTM A139
And compliant with (check one or more): [ ] ASTM A524 (or A606) [ ] Type E [ ] Type S [ ] Grade B [ ] Other
Stainless Steel: (check one): [ ] ASTM A400 (production wells) [ ] ASTM A432 (monitor wells)
ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one): [ ] Schedule 40 [ ] Schedule 80
PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one): [ ] Schedule 40 [ ] Schedule 80 [ ] Schedule 120
Thermoset Plastic: (check one):
- [ ] Filament Wound Resin Pipe conforming to ASTM D2996
- [ ] Centrifugally Cast Resin Pipe conforming to ASTM D2997
- [ ] Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- [ ] Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- [ ] PTFE Fluorocarbon Tubing conforming to ASTM D3296
- [ ] FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing:
Carbon Steel: compliant with (check one or more): [ ] ANSI/AWWA C200 [ ] API Spec. 5L [ ] ASTM A53 [ ] ASTM A139
And compliant with (check one or more): [ ] ASTM A524 (or A606) [ ] Type E [ ] Type S [ ] Grade B [ ] Other
Stainless Steel: (check one): [ ] ASTM A400 (production wells) [ ] ASTM A432 (monitor wells)
ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one): [ ] Schedule 40 [ ] Schedule 80
PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one): [ ] Schedule 40 [ ] Schedule 80 [ ] Schedule 120
Thermoset Plastic: (check one):
- [ ] Filament Wound Resin Pipe conforming to ASTM D2996
- [ ] Centrifugally Cast Resin Pipe conforming to ASTM D2997
- [ ] Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- [ ] Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- [ ] PTFE Fluorocarbon Tubing conforming to ASTM D3296
- [ ] FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Hole:
Length: [ ] ft.
Diameter: [ ] in.
Bottom Elevation: [ ] ft., msl*

Solid Casing: (\( > 90\% \times \text{Ground Elev.-Water Level Elev.} \))
Total Length: [ ] ft.
Nominal Diameter: [ ] in.
Wall Thickness: [ ] in.
Bottom Elevation: [ ] ft., msl*

Open Casing: [ ] Perforated [ ] Screen
Total Length: [ ] ft.
Nominal Diameter: [ ] in.
Wall Thickness: [ ] in.
Bottom Elevation: [ ] ft., msl*
Note: Neither bentonite nor mud should be used in saturated zone during drilling

\[ \frac{\text{Elevation at top of casing}}{\text{Hole Diameter}} = \frac{12}{24} = 0.5 \text{ in.} \]

Grouting method: Annular space between hole and casing (1.5' for positive displacement, 3' for other methods)

\[ \text{Rock or Gravel Packing: 53 ft.} \]

Material: [ ] Crushed Basalt [ ] Rounded Gravel

Estimated Water Level Elevation: [ ] ft., msl*

The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION
☐ Fill in the most recent application form.
(www.hawaii.gov/dlnr/cwrm for updates)
☐ Fill every line in (both sides of application).
☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.
☐ Mark the proposed well location on: the appropriate USGS quad map, the TMK map, the photo and the schematic, and attach to the application.
☐ For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.
☐ Attach the original and 10 copies of the application form, maps, photo and schematic.
☐ Attach letters from OCL and appropriate county agencies regarding items 21 to 23.
☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

DESCRIPTIONS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION
1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. ISLAND The island name that the well is located on.
4. TMK Tax Map Key number
5. Well operator's information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumpage when the construction is completed.
6. Landowner's information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION
7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. Construction type The construction type can be drilled, dug, shaft, or tunnel.
9. Battery Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes functions as a single source.

PROPOSED PUMP INSTALLATION
10. Proposed work The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission of a Well Completion Report Part II.
11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed the proposed pumping rate in gallons per minute x 1440 minutes/day.
13. Method of flow measurement This is the proposed method the operator will be using to measure pumpage for reporting purposes.

PROPOSED SURVEYOR
14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it is necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write "deferred" in this space.

PROPOSED USE
15. Municipal Use is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term "domestic use".
16. Domestic Use is any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.
17. Industrial Use is for uses such as cooling or processing water, etc.
18. Irrigation Use is for golf courses, agriculture, etc.
19. Military Use is water used by the military from military operated water supply systems.
20. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS
21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first check with the Land Use Commission (LUC) (www.hawaii.gov/dcd/dcd/wwmp/maps/land.php or call 555-5555). If the well is not in a CD, then you may check it in a CD box. If the well site is in a CD you will need to then determine if a Conservation District Use Permit (CDUP) is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCL) of DLNR at 555-5555
22. Special Management Area Permit (SMAP) To determine if an SMAP is necessary, contact the Office of Conservation and Coastal Lands (OCCL) of DLNR at 555-5555
23. Historic Preservation review If the parcel(s) affected by construction (well location/access road/infrastructure for well) has been reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHDP) or through an OEOC Environmental Review, Special Management Area Permit, etc., check "yes" and attach any relevant documentation from SHDP. If the affected parcel(s) has not undergone SHDP review, attach a photograph of the affected area, a schematic diagram (showing the well location, access road and infrastructure for the well), and a short description of the prior use(s) of the land on which the well resides.

*Please note: You are strongly advised to contact the SHPD to obtain a pre-review of your project. In the event that you do not get an HP pre-review and if during the course of either review or the permit itself it is determined that you need SHDP's concurrence, your application or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHPD, please call 555-5555.

SIGNATURES
24. Well Driller This section must be filled out completely for the Well Construction Permit application to be accepted as complete.
25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted as complete.
<table>
<thead>
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<th>Step</th>
<th>Description</th>
<th>Responsible Party</th>
<th>Legal Deadline</th>
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<tr>
<td>1</td>
<td>Ensure that if items 21 to 23 of the application are required, that they are obtained prior to applying for a permit. Otherwise, post-application comments obtained from these agencies may delay processing of your application.</td>
<td>Applicant</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Application for Well Construction (or modification) and/or Pump Installation (or replacement with larger capacity than existing pump - see note B below).</td>
<td>Licensed Well Driller (for Well Construction) and/or Licensed Pump Contractor (for Pump Installation)</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Issuance of Well Construction Permit to Well Driller (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. (See note A below).</td>
</tr>
<tr>
<td>4</td>
<td>Issuance of Pump Installation Permit to Pump Installer (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. (See note A below).</td>
</tr>
<tr>
<td>5</td>
<td>Execute/Sign Permit.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Before work activity begins.</td>
</tr>
<tr>
<td>6</td>
<td>Start of Work Notice.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>2 weeks prior to beginning of work activity.</td>
</tr>
<tr>
<td>7</td>
<td>Post copy of permit at the work site.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>During entire period of work activity at the site.</td>
</tr>
<tr>
<td>8</td>
<td>Construction of well.</td>
<td>Licensed Well Driller</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td></td>
<td>Note: a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work.</td>
<td></td>
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<tr>
<td></td>
<td>b) If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e. go back to step 1 above).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Installation of a temporary test pump that can adequately conduct a step-drawdown test (if proposed pump&gt;70 gpm).</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>10</td>
<td>Installation of permanent pump.</td>
<td>Licensed Pump Installer</td>
<td>Within 2 years of issuance of Pump Installation Permit.</td>
</tr>
<tr>
<td>11</td>
<td>Application for permit extension (if required).</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>12</td>
<td>Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM.</td>
<td>Licensed Well Driller</td>
<td>Within 60 days of completion of Well Construction (the date that ALL aspects of Well Completion Report Part I can be filed in).</td>
</tr>
<tr>
<td>13</td>
<td>Well Completion Report Part II to be returned to CWRM.</td>
<td>Licensed Pump Installer</td>
<td>Within 60 days of completion of Pump Installation (the date that ALL aspects of Well Completion Report Part II can be filed in).</td>
</tr>
<tr>
<td>14</td>
<td>Acceptance of Well Completion Report Part I, Elevation Survey.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>15</td>
<td>Issuance of Certificate of Well Construction Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance of Well Completion Report Part II.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>17</td>
<td>Issuance of Certificate of Pump Installation Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>18</td>
<td>Pumpeage may commence, Water Use Reporting required.</td>
<td>Well Operator</td>
<td>Monthly recording.</td>
</tr>
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<td>19</td>
<td>Abandonment (initiated in Step 2 of process).</td>
<td>Landowner</td>
<td>Until well sealed.</td>
</tr>
</tbody>
</table>

**NOTES:**
A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.
B. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION /
PUMP INSTALLATION PERMIT

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 821, Honolulu, Hawaii 96809. Application must be accompanied by 10 copies and 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 808-681-2225. For other information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

WELL LOCATION INFORMATION

1. STATE WELL NO. (If already assigned) 1806-10
2. WELL NAME SW-2
3. ISLAND Oahu
4. TMK 9-1-026-030

The following must be attached before this application is accepted as complete:
- A plot or 7.5-minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quod map
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For dug wells, attach a grading plan with cross section profiles showing existing and finish grades

5. WELL OPERATOR’S NAME/COMPANY Covanta Honolulu Resource Recovery Venture
6. LANDOWNER’S NAME/COMPANY City and County of Honolulu
7. LANDOWNER’S CONTACT John Smith
8. LANDOWNER’S Mailing Address 750 South street, Honolulu, HI 96813

PROPOSED WELL CONSTRUCTION

7. Proposed Work
   o Construct New Well
   o Modify Existing Well
   o Abandon/Seal Well
8. Construction Type
   o Drilled
   o Dog
   o Shaft
   o Tunnel

PROPOSED PUMP INSTALLATION

10. Proposed Work
   o Install New Pump
   o Replace Pump

11. Proposed Pumping Rate, gpm (gallons per minute)

2319 gpm

12. Proposed Amount of Withdrawal, gpd (gallons per day)

3.34 million gallons per day (total withdrawal from 2 wells)

13. Method of flow measurement
   o Flowmeter
   o Other (explain)

OTHER LEGAL REQUIREMENTS if required, items 21. and 22. must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)
   a. Well is in Conservation District
      Required, CDUP #
      Not Required (attach documentation from OCCCL)

22. Special Management Area Permit (SMAP)
   a. Required, SMA #
      Not Required (attach documentation from applicable County agency)

Additional remarks, explanations, etc. (attach additional sheet if more space is needed) Proposed pump installation is not in an SMA area

SHPD was consulted throughout the EIS process performed for the full expansion facility. See Attached Letter from SHPD

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge.

24. WELL DRILLER (Must be listed if application is for Well Construction)
    Licensee business name C-57 License No.
    Signature

25. PUMP INSTALLER (Must be listed if application is for Pump Installation)
    Licensee business name C-57C and C-7A License No.
    Signature

For Official Use Only:

WCPI Application Form 92/
PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Hole Diameter: 12 in.
Elevation at top of casing: 12 ft. msl

Cement Group: 47 ft. (min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)

Grouting method:
- Positive displacement
- Other

Rock or Gravel Packing:
- 53 ft.

Material:
- Crushed Basalt
- Rounded Gravel

Estimated Water Level Elevation: 12 ft. msl

Solid Casing: (90% x (Ground Elevation - Water Level Elev))
- Total Length: 50 ft.
- Nominal Diameter: 18 in.
- Wall Thickness: varies in.
- Bottom Elevation: -38 ft. msl

Open Casing: (check)
- Perforated
- Screen
- Total Length: 50 ft.
- Nominal Diameter: 18 in.
- Wall Thickness: varies in.
- Bottom Elevation: -58 ft. msl

Open Hole:
- Length: 6 ft.
- Diameter: 24 in.
- Bottom Elevation: -93 ft. msl

* The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or 3 ft.

Example: Estimated + 2 ft. Water Level Elev. -- Bottom Elevation of Well Limit = \( \frac{(\text{Water Elevation} - 4" \text{Water Level Elev})}{-4} \) x +18.5 ft.

Solid Casing Material:
- Carbon Steel: compliant (check one or more):
  - ANSI/WWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
- Stainless Steel: (check one):
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80
- PVC Plastic conforming to ASTM F480 and ASTM D1785: (check one)
  - Schedule 40
  - Schedule 80
  - Schedule 120
- Thermoset Plastic: (check one)
  - Centrifugally Cast Resin Pipe conforming to ASTM D2997
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  - PTFE Fluorocarbon Tubing conforming to ASTM D3298
  - FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material:
- Carbon Steel: compliant (check one or more):
  - ANSI/WWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
- Stainless Steel: (check one):
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80
- PVC Plastic conforming to ASTM F480 and ASTM D1785: (check one)
  - Schedule 40
  - Schedule 80
- Thermoset Plastic: (check one)
  - Centrifugally Cast Resin Pipe conforming to ASTM D2997
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  - PTFE Fluorocarbon Tubing conforming to ASTM D3298
  - FEP Fluorocarbon Tubing conforming to ASTM D3296

WCPI Application
INSTRUCTIONS FOR FILLING OUT WELL CONSTRUCTION/PUMP INSTALLATION PERMIT APPLICATION FORM

CHECKLIST FOR A COMPLETE APPLICATION
☐ Fill in the most recent application form. (check www.hawaii.gov/dlnr/cwrm or call [phone number] for updates)
☐ Fill every line in (both sides of application).
☐ Enclose a check for $25 payable to the Department of Land and Natural Resources.
☐ Mark the proposed well location on: the appropriate USGS quad map, the TMK map, the photo and the schematic, and attach to the application.
☐ For dug wells, attach a grading plan and cross section profiles showing existing and finish grades.
☐ Attach the original and 10 copies of the application form, maps, photo and schematic.
☐ Attach letters from OCCL and appropriate county agencies regarding items 21 to 23.
☐ Sign the application form.

Send the application and maps, copies, and the filing fee to:
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

DESCRIPTONS FOR LINES ON APPLICATION

WELL LOCATION INFORMATION
1. STATE WELL NO. If you already have a state well number assigned, please fill it out here. Otherwise, leave it blank and a well number will be assigned by the CWRM.
2. WELL NAME Give the well a short concise name that will differentiate it from other wells. It is what you want to call the well.
3. ISLAND The island name that the well is located on.
4. TMK Tax Map Key number
5. Well operator’s information Fill in the information for the well operator. This should be the entity that will be responsible for reporting the pumpage when the construction is completed.
6. Landowner’s information Fill in the information for the landowner of the property where the well is located.

PROPOSED WELL CONSTRUCTION
7. Proposed work The proposed work can be the construction of a new well, the modification (deepening, etc.) of an existing well, or the abandonment and sealing of an existing well. Check one box only.
8. Construction type The construction type can be drilled, dug, shaft, or tunnel.
9. Battery Is this well part of a battery of wells? A battery is defined as two or more wells in close proximity that for all intents and purposes function as a single source.

PROPOSED PUMP INSTALLATION
10. Proposed work The proposed work can be either the installation of a new pump or the replacement of an existing pump. Replacement of an existing pump requires a permit only if the pump is of greater capacity than the existing installed pump. Otherwise, a replacement will only require the submission of a Well Completion Report Part II.
11. Proposed pumping rate The proposed pumping rate of the pump in gallons per minute.
12. Proposed amount of withdrawal The proposed amount of withdrawal in gallons per day, not to exceed (the proposed pumping rate in gallons per minute) x 1440 minutes/day.
13. Method of flow measurement This is the proposed method the operator will be using to measure pumpage for reporting purposes.

PROPOSED SURVEYOR
14. Proposed surveyor name and license number A Hawaii licensed surveyor must establish benchmark elevations for wells where proposed pumps of 70 gpm or more are to be installed, to comply with the well completion report requirements. Proposed pumps less than 70 gpm may have this requirement deferred until the Commission deems it is necessary. If you wish to defer this requirement and your pump is less than 70 gpm, please write “deferred” in this space.

PROPOSED USE
15. Municipal Use is domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term “municipal use”.
16. Domestic Use is any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.
17. Industrial Use is for uses such as cooling or processing water, etc.
18. Irrigation Use is for golf courses, agriculture, etc.
19. Military Use is water used by the military from military operated water supply systems.
20. Other Use not described in items 15 through 19. Please add a description.

OTHER LEGAL REQUIREMENTS
21. Conservation District Use Permit (CDUP) To find out if your well is located in a Conservation District (CD), you should first with the Land Use Commission (LUC) [website] or call [phone number]. If the well is not in a Conservation District, you may check not in a CD box. If the well site is in a CD you will need to then determine if a Conservation District Use Permit is required. To find out if a CDUP is necessary, please contact the Office of Conservation and Coastal Lands (OCCL) of DLNR (808-587-0775).
22. Special Management Area Permit (SMAP) To determine if an SMAP is necessary, please consult [website].
23. Historic Preservation review If the parcel(s) affected by construction (well location/access road/infrastructure for well) has reviewed by the State Department of Land and Natural Resources Historic Preservation Division (SHPD) or through an GE/P Environmental Review, Special Management Area Permit, etc., check “yes” and attach any relevant documentation from SHPD.

*Please note: You are strongly advised to contact the SHPD to obtain a pre-review of your project. In the event that you are not pre-reviewed and if during the course of either review or the permit itself it is determined that you need SHPD’s concurrence or permit may be held in abeyance or denied until issues with HP are resolved. To contact SHPD, please call [phone number].

SIGNATURES
24. Well Driller This section must be filled out completely for the Well Construction Permit application to be accepted.
25. Pump Installer This section must be filled out completely for the Pump Installation Permit application to be accepted.
### COMMISSION ON WATER RESOURCE MANAGEMENT
### WELL CONSTRUCTION/PUMP INSTALLATION PERMIT PROCESS WORKSHEET

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Responsible Party</th>
<th>Legal Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ensure that if items 21 to 23 of the application are required, that they are obtained prior to applying for a permit. Otherwise, post-application comments obtained from these agencies may delay processing of your application.</td>
<td>Applicant</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Application for Well Construction (or modification) and/or Pump installation (or replacement with larger capacity than existing pump - see note B below).</td>
<td>Licensed Well Driller (for Well Construction) and/or Licensed Pump Contractor (for Pump Installation) (See note C below)</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Issuance of Well Construction Permit to Well Driller (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. (See note A below)</td>
</tr>
<tr>
<td>4</td>
<td>Issuance of Pump installation Permit to Pump Installer (if applied for).</td>
<td>CWRM</td>
<td>Within 90 days of acceptance of completed application &amp; contingent upon other agencies' legal requirements. (See note A below)</td>
</tr>
<tr>
<td>5</td>
<td>Execute/Sign Permit.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Before work activity begins.</td>
</tr>
<tr>
<td>6</td>
<td>Start of Work Notice.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>2 weeks prior to beginning of work activity.</td>
</tr>
<tr>
<td>7</td>
<td>Post copy of permit at the work site.</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>During entire period of work activity at the site.</td>
</tr>
<tr>
<td>8</td>
<td>Construction of well. Note: a) If the well is to be abandoned during the course of the Well Construction Permit, and no further work is to be done, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work. b) If the well is to be abandoned and relocated during the course of the Well Construction Permit, the applicant shall apply for and obtain a Well Abandonment Permit prior to doing any abandonment work, and a new Well Construction Permit shall be applied for and obtained prior to doing any new work (i.e., go back to step 1 above).</td>
<td>Licensed Well Driller</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>9</td>
<td>Installation of a temporary test pump that can adequately conduct a step-drawdown test (if proposed pump&gt;70 gpm).</td>
<td>Licensed Well Driller or Licensed Pump Installer</td>
<td>Within 2 years of issuance of Well Construction Permit.</td>
</tr>
<tr>
<td>10</td>
<td>Installation of permanent pump.</td>
<td>Licensed Pump Installer</td>
<td>Within 2 years of issuance of Pump Installation Permit.</td>
</tr>
<tr>
<td>11</td>
<td>Application for permit extension (if required).</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>12</td>
<td>Well Completion Report Part I (including Elevation Survey and Pump Tests, if applicable) to be returned completed to CWRM.</td>
<td>Licensed Well Driller</td>
<td>Within 60 days of completion of Well Construction (the date that ALL aspects of Well Completion Report Part I can be filed).</td>
</tr>
<tr>
<td>13</td>
<td>Well Completion Report Part II to be returned to CWRM.</td>
<td>Licensed Pump Installer</td>
<td>Within 60 days of completion of Pump Installation (the date that ALL aspects of Well Completion Report Part II can be filed in).</td>
</tr>
<tr>
<td>14</td>
<td>Acceptance of Well Completion Report Part I, Elevation Survey.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>15</td>
<td>Issuance of Certificate of Well Construction Completion to Landowner.</td>
<td>CWRM</td>
<td>None</td>
</tr>
<tr>
<td>16</td>
<td>Acceptance of Well Completion Report Part II.</td>
<td>CWRM</td>
<td>None</td>
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<td>Issuance of Certificate of Pump Installation Completion to Landowner.</td>
<td>CWRM</td>
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<td>Pumpage may commence, Water Use Reporting required.</td>
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<td>Abandonment (initiated in Step 2 of process).</td>
<td>Landowner</td>
<td>Until well sealed.</td>
</tr>
</tbody>
</table>

**NOTES:**

A. For non-compliance of other agencies' legal requirements that preclude the Commission from issuing a permit, your application may:
   a) Have the 90-day deadline for approval waived (at your request); or
   b) Be denied and you can seek recourse at a Commission hearing.

B. If a pump replacement of equal or less than the existing capacity is done, then only step 10 is required (Well Completion Report Part II).

C. If a contractor is not selected, the application will not be accepted as complete, but may be routed for comments. If the application undergoes a satisfactory review, a letter of assurance will then be issued indicating that a permit will be issued upon selection of a contractor without outstanding issues with the Commission.

**WCPI Permit Instructions and Process Worksheets 2/28/2007**
Site Map
H-Power Application for Pump Installation Permit.
Site Photographs of the Sources and Locations of Proposed End Uses
H-Power Application for Pump Installation Permit.

Legend
- Well Location
- Cooling Tower Area
- Site Boundary
- TMK Boundaries

Well No.1
Well No.2
March 4, 2009

Mr. S. Samuel Joshi, PE, QEP
Manager, Environmental Engineering
Covanta Honolulu Resource Recovery Venture
c/o Covanta Energy Corporation

Dear Mr. Joshi:

Subject: Draft Environmental Impact Statement
H-Power Third Boiler Expansion Project
91-174 Hanua Street – Campbell Industrial Park
Tax Map Key 9-1-26: 30

This is in response to your request, received January 30, 2009, for comments concerning the Draft Environmental Impact Statement (DEIS) for the subject project.

The project site, as well as the adjoining parcels to be used for construction lay-down (Tax Map Key 9-1-26: 33 and 34), are not located in the Special Management Area (SMA) or the shoreline setback, and will not require an SMA permit or shoreline setback variance.

Please note that the project does not require a modification to Conditional Use Permit (CUP) No. 89/CUP1-17, as stated in Section 3.0, “Required Approvals and Permits,” of the DEIS. Since the H-Power facility is now owned and operated by the City, it is thus considered to be a “public use and structure” for purposes of the Land Use Ordinance (LUO); and, as such is a permitted use in all zoning districts. When the CUP had originally been issued, the use was then classified as a “utility installation, Type B,” since at that time it had been privately owned and operated.

The project will need to obtain an approved zoning waiver, pursuant to LUO Section 21-2.130(a)(1), for any portion of the project which will exceed the maximum 60-foot zoning height for the site.
Mr. S. Samuel Joshi  
March 4, 2009  
Page 2

Thank you for the opportunity to comment on the DEIS. Please contact Blake La Benz of our staff at [redacted] for any questions.

Very truly yours,

[Signature]
David K. Tanoue, Director  
Department of Planning and Permitting

DKT:fm  
cc: Department of Environmental Services  
Office of Environmental Quality Control  
AMEC Earth & Environmental, Inc.

G:\Land\JetPost\WorkingDirectory\Blake\Correspondence\09ELOG-234.doc
March 16, 2009

Mr. S. Samuel Joshi
Covanta Energy Corporation

Dear Mr. Joshi:

SUBJECT: 6E-8 Historic Preservation Review—
DRAFT Environmental Impact Statement (DEIS)—
H-POWER Expansion Project,
Honou'uli'uli Ahupua'a, 'Ewa District, O'ahu, Hawai'i
TMK: (1) 9-026-030, 033, 034

Thank you for the opportunity to review this DRAFT Environmental Impact Statement, which we received via CD on January 28, 2009.

The H-POWER site is located in the Campbell Industrial Park at Kala'akoa [formerly called Barbers Point or Barber's Point]. The H-POWER facility, which began operation in May 1990, is operated by Covanta Honolulu Resource Recovery Venture (CHRRV) on behalf of the City and County of Honolulu.

This project will entail the expansion of the current H-POWER facility onto parcels 33 and 34 adjacent to the current facility. They are currently vacant. A garden for endemic plants and the site for the reburial of a single human burial previously discovered when the initial facility was built in the 1980's area present on the site. Because of the possibility that sinkholes prevalent in this portion of 'Ewa could contain historic properties, an archaeological and cultural impact assessment study in support of the proposed expansion on 24.635 acres of industrially zoned land was undertaken to determine the presence or absence of historic properties (ARCHAEOLOGICAL AND CULTURAL IMPACT ASSESSMENTS FOR THE PROPOSED H-POWER EXPANSION PROJECT, HONO'ULI'ULI AHUPUA'A, 'EWA DISTRICT, ISLAND OF O'AHU, TMK: (1) 9-1-026:30, 33, AND 34[McCoy and Clark, September 2008].

There is evidence that large portions of Parcels 33 and 34 have been grubbed and graded. Clearing may have occurred on more than one occasion. Aerial photographs suggest that the land clearing project undertaken by Campbell Estate in the early 1960's on Parcel 30 and documented during the archaeological reconnaissance survey in 1983 also included Parcels 33 and 34.

No historic properties were recorded during this archaeological assessment; however, it is recommended that precautionary monitoring be performed during any ground disturbing activities. We find that there are no historic properties affected by this project.

Please call Wendy Tolleson at [redacted] if there are any questions or concerns regarding this letter.
Aloha,

Nancy A. McMahon (Deputy SHPO)
State Historic Preservation Officer

CC:

Mr. Stephen Langham
Environmental Services Refuse Division, HPOWER
Kapolei, Hawaii 96707

ENV Director
City and County of Honolulu

Dr. Russell Okoji
AMEC Earth & Environmental, Inc.
PROJECT TITLE  EWA CAPROCK GROUNDWATER QUALITY SURVEY

WELL DESCRIPTION:
Well Name: H-Power "Well System"
Well I.D. No.: 3-1806-09 and 10
Well Location: Lat. 21° 18' 30" N
Long. 158° 06' 29" W
Well Owner: C & C H-Power
Contact Person: Glenn Murata
Type: Industrial
Flow 2.24 mgd
Remarks: Drilled

WELL CONSTRUCTION: 09 (10)
Casing Stick Up (A) ft.
Ground Elevation (B) 12 ft.
Diameter of Boring (C) in.
Total Depth of Boring (D) 103 (105) ft.
Grouted Interval (E) ft.
Filter-Pack Interval (F) ft.
Mrd Dpth to Wtr Tbl/ Approx Elev/ Elev Per DLNR Indx (G) / .3 (.2) ft.

<table>
<thead>
<tr>
<th></th>
<th>DIAMETER (IN)</th>
<th>LENGTH (FT)</th>
<th>TOP/BOT.ELEV.(FT)</th>
<th>MATERIAL</th>
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</thead>
<tbody>
<tr>
<td>Solid Casing (H)</td>
<td>18</td>
<td>50</td>
<td>12/-38</td>
<td></td>
</tr>
<tr>
<td>Perforated Casing (I)</td>
<td>50</td>
<td>-38/-88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open Hole (J)</td>
<td>3 (5)</td>
<td>-88/-91 (-93)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

JOURNAL OF SAMPLE COLLECTIONS:
Date   November 30, 1992       June 30, 1993
Time   9:30 a.m.               11:05 a.m.
Person JT, KW, MB, CH, NU     CH, KW, JR
Weather Raining                Fair
Remarks Sampled at downstream port Sampled at downstream port
### H-POWER "SOUTH WELL"

#### Date of Sample Collection

<table>
<thead>
<tr>
<th>ANALYTICAL PARAMETERS</th>
<th>RESULTS</th>
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<tbody>
<tr>
<td>Date of sample Collection</td>
<td></td>
</tr>
<tr>
<td>11/30/92</td>
<td></td>
</tr>
<tr>
<td>06/30/93</td>
<td></td>
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</tbody>
</table>

#### RESULTS

<table>
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<tr>
<th>Parameter</th>
<th>11/30/92</th>
<th>06/30/93</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Dissolved Solids (mg/l)</td>
<td>29127</td>
<td>30362</td>
</tr>
<tr>
<td>Total Suspended Solids (mg/l)</td>
<td>&lt;0.5</td>
<td>16</td>
</tr>
<tr>
<td>Chlorides (mg/l)</td>
<td>17950</td>
<td>24,650</td>
</tr>
<tr>
<td>Specific Conductance (mhos/cm)</td>
<td>38900</td>
<td>37,400</td>
</tr>
<tr>
<td>Hardness (mg equiv. Ca CO3/l)</td>
<td>5590</td>
<td>5687</td>
</tr>
<tr>
<td>Alkalinity (as Ca CO3) (mg/l)</td>
<td>141</td>
<td>129</td>
</tr>
<tr>
<td>pH (std. unit)</td>
<td>6.3</td>
<td>7.2</td>
</tr>
<tr>
<td>Temperature (°C/°F)</td>
<td>25.5/</td>
<td>25.5/</td>
</tr>
<tr>
<td>Turbidity (NTU)</td>
<td>0.05</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/l)</td>
<td>3.6</td>
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<tr>
<td>Total Residual Chlorine (mg/l)</td>
<td>0.04</td>
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<tr>
<td>Ammonia (N) (mg/l)</td>
<td>0.06</td>
<td>0.031</td>
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<tr>
<td>Total Kjeldahl Nitrogen (mg/l)</td>
<td>0.2</td>
<td>0.10</td>
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<tr>
<td>Total Phosphorus (mg/l)</td>
<td>0.031</td>
<td>0.026</td>
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<tr>
<td>Orthophosphate (mg/l)</td>
<td>0.029</td>
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<tr>
<td>Total Organic Carbon (mg/l)</td>
<td></td>
<td>1.7</td>
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<tr>
<td>Biochemical Oxygen Demand-5 Day (mg/l)</td>
<td>&lt;1</td>
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<tr>
<td>Chemical Oxygen Demand (mg/l)</td>
<td></td>
<td>110</td>
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<tr>
<td>Total Coliform (COL/100ml)</td>
<td>NF</td>
<td>NF</td>
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<table>
<thead>
<tr>
<th>Substance</th>
<th>11/30/92</th>
<th>06/30/93</th>
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<tbody>
<tr>
<td>Vinyl Chloride</td>
<td>&lt;0.3</td>
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<tr>
<td>1,1-Dichloroethylene</td>
<td>&lt;0.3</td>
<td>&lt;0.3</td>
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<tr>
<td>1,1,1-Trichloroethane</td>
<td>&lt;0.3</td>
<td>&lt;0.3</td>
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<tr>
<td>Carbon Tetrachloride</td>
<td>&lt;0.2</td>
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<tr>
<td>Benzene</td>
<td>&lt;0.3</td>
<td>&lt;0.3</td>
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<tr>
<td>1,2-Dichloroethane</td>
<td>&lt;0.3</td>
<td>&lt;0.3</td>
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<tr>
<td>Trichloroethylene</td>
<td>&lt;0.2</td>
<td>&lt;0.2</td>
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<tr>
<td>p-Dichlorobenzene</td>
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<td>&lt;0.3</td>
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<tr>
<td>1,2,3-Trichloropropene</td>
<td>&lt;0.2</td>
<td>&lt;0.2</td>
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<tr>
<td>trans-1,2-Dichloroethene</td>
<td>&lt;0.3</td>
<td>&lt;0.3</td>
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<tr>
<td>cis-1,2-Dichloroethene</td>
<td>&lt;0.3</td>
<td>&lt;0.3</td>
</tr>
<tr>
<td>1,2-Dichloropropane</td>
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<td>&lt;0.3</td>
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<tr>
<td>Toluene</td>
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<td>Ethylbenzene</td>
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<td>Monochlorobenzene</td>
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<tr>
<td>o-Dichlorobenzene</td>
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<tr>
<td>Styrene</td>
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<td>m-Xylene</td>
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<tr>
<td>p-Xylene</td>
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<tr>
<td>o-Xylene</td>
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<tr>
<td>Tetrachloroethene</td>
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<tr>
<td>Chloromethane</td>
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<tr>
<td>Bromomethane</td>
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<tr>
<td>Chloroethane</td>
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</table>

(a) - Fecal Positive
(b) - Fecal Negative
(c) - Sample Holding Time Exceeded
(d) - Lost in Extraction

TNTC - Too Numerous To Count
NF - None Found

DRAFT
**Date of Sample Collection**

<table>
<thead>
<tr>
<th>ANALYTICAL PARAMETERS</th>
<th>11/30/92</th>
<th>06/30/93</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene Chloride (ppb)</td>
<td>&lt;0.2</td>
<td>&lt;0.2</td>
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<tr>
<td>1,1-Dichloroethane (ppb)</td>
<td>&lt;0.3</td>
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<tr>
<td>2,2-Dichloropropane (ppb)</td>
<td>&lt;0.3</td>
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<tr>
<td>Chloroform (ppb)</td>
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<td>&lt;0.2</td>
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<tr>
<td>1,1-Dichloropropene (ppb)</td>
<td>&lt;0.3</td>
<td>&lt;0.3</td>
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<tr>
<td>Bromodichloromethane (ppb)</td>
<td>&lt;0.3</td>
<td>&lt;0.3</td>
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<tr>
<td>Dibromomethane (ppb)</td>
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<td>&lt;0.3</td>
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<tr>
<td>trans-1,3-Dichloropropene (ppb)</td>
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<td>&lt;0.3</td>
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<td>cis-1,3-Dichloropropene (ppb)</td>
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<td>1,1,2-Trichloroethane (ppb)</td>
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<td>&lt;0.3</td>
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<tr>
<td>1,3-Dichloropropane (ppb)</td>
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<tr>
<td>Dibromochloromethane (ppb)</td>
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<td>1,1,1,2-Tetrachloroethane (ppb)</td>
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<td>Bromoform (ppb)</td>
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<td>1,1,2,2-Tetrachloroethane (ppb)</td>
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<td>&lt;0.3</td>
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<tr>
<td>Bromobenzene (ppb)</td>
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<td>&lt;0.3</td>
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<tr>
<td>2-Chlorotoluene (ppb)</td>
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<tr>
<td>4-Chlorotoluene (ppb)</td>
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<tr>
<td>1,3-Dichlorobenzene (ppb)</td>
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<td>&lt;0.3</td>
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<tr>
<td>Bromochloromethane (ppb)</td>
<td>&lt;0.3</td>
<td>&lt;0.3</td>
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<tr>
<td>1,2,4-Trichlorobenzene (ppb)</td>
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<td>&lt;0.3</td>
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<tr>
<td>Hexachlorobutadiene (ppb)</td>
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<tr>
<td>Naphthalene (ppb)</td>
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<tr>
<td>1,1,3-Trichlorobenzene (ppb)</td>
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<td>&lt;0.3</td>
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<tr>
<td>Arsenic (ppm)</td>
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<td>&lt;0.05</td>
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<td>Selenium (ppm)</td>
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<td>Mercury (ppm)</td>
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<td>Cadmium (ppm)</td>
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<td>Lead (ppm)</td>
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<td>&lt;0.05</td>
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<td>Chromium (ppm)</td>
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<td>Barium (ppm)</td>
<td>0.020</td>
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<tr>
<td>Silver (ppm)</td>
<td>&lt;0.01</td>
<td>0.533</td>
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<td>Nitrate (as N) (ppm)</td>
<td>1.8</td>
<td>0.003</td>
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<tr>
<td>Nitrite (as N) (ppm)</td>
<td>&lt;0.05</td>
<td>0.80</td>
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<td>Fluoride (ppm)</td>
<td>9320</td>
<td>9930</td>
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<td>Sodium (ppm)</td>
<td>0.06</td>
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<tr>
<td>Copper (ppm)</td>
<td>&lt;0.01</td>
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<tr>
<td>Nickel (ppm)</td>
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<tr>
<td>Antimony (ppm)</td>
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<td>Beryllium (ppm)</td>
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<tr>
<td>Thallium (ppm)</td>
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<td>&lt;0.02</td>
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<td>Iron (ppm)</td>
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<tr>
<td>Ethylene Dibromide (ppb)</td>
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<tr>
<td>1,2-Dibromo-3-Chloropropane (ppb)</td>
<td>&lt;0.02</td>
<td>&lt;0.02</td>
</tr>
</tbody>
</table>

(a) - Fecal Positive  
(b) - Fecal Negative  
(c) - Sample Holding Time Exceeded  
(d) - Lost in Extraction

**TNITC** - Too Numerous To Count  
**NF** - None Found  
**DRAFT**
### H-Power "South Well"

<table>
<thead>
<tr>
<th>Date of Sample Collection</th>
<th>11/30/92</th>
<th>06/30/93</th>
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</thead>
<tbody>
<tr>
<td><strong>ANALYTICAL PARAMETERS</strong></td>
<td><strong>RESULTS</strong></td>
<td></td>
</tr>
<tr>
<td>Aldicarb (ppb)</td>
<td>&lt;1.0</td>
<td>&lt;1.0</td>
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<tr>
<td>Aldicarb Sulfone (ppb)</td>
<td>&lt;1.0</td>
<td>&lt;1.0</td>
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<tr>
<td>Aldicarb Sulfoxide (ppb)</td>
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<td>&lt;1.0</td>
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<tr>
<td>Oxamyl (ppb)</td>
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<td>&lt;1.0</td>
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<td>Methomyl (ppb)</td>
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<td>&lt;1.0</td>
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<td>3-OH Carbofuran (ppb)</td>
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<td>Propoxur (ppb)</td>
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<td>Carbaryl (ppb)</td>
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<td>&lt;1.0</td>
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<td>Methiocarb (ppb)</td>
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<td>Dalapon (ppb)</td>
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<td>2,4D (ppb)</td>
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<td>Pentachlorophenol (ppb)</td>
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<td>2,4,5-TP (ppb)</td>
<td>&lt;0.130</td>
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<td>Dinoseb (ppb)</td>
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<td>Picloram (ppb)</td>
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<td>Lindane (ppb)</td>
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<tr>
<td>Alachlor (ppb)</td>
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<td>Heptachlor (ppb)</td>
<td>&lt;0.200</td>
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<td>Heptachlor Epox. (ppb)</td>
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<td>Endrin (ppb)</td>
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<td>Methoxychlor (ppb)</td>
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<td>&lt;0.04</td>
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<tr>
<td>Chlordane (ppb)</td>
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<td>Toxaphene (ppb)</td>
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<td>Atrazine (ppb)</td>
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<td>Simazine (ppb)</td>
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<td>Bromacil (ppb)</td>
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<td>Hexazinone (ppb)</td>
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<tr>
<td>Mevinphos (ppb)</td>
<td>&lt;2.40</td>
<td></td>
</tr>
</tbody>
</table>

(a) - Fecal Positive  
(b) - Fecal Negative  
(c) - Sample Holding Time Exceeded  
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TNTC - Too Numerous To Count  
NF - None Found  

**DRAFT**
Caprock Wells Sampled

Major and Secondary Roads

Seaward (Makai) Areas of the Underground
TO
STATE OF HAWAII

DEPARTMENT OF WATER & LAND DEVELOPMENT

DEPARTMENT OF LAND & NATURAL RESOURCES

P. O. Box 621
Honolulu, Hawaii 96809

DATE
October 17, 1986

JOB NO.
-4402-097-11

ATTENTION
Mr. Manabu Tagomori

RE:
Honolulu Resource Recovery Venture
Wells

State Wells No. 1806-09, 10
Ewa Beach, Oahu, Hawaii

WE ARE SENDING YOU XX Attached □ Under separate cover via __________ the following items:

□ Shop drawings □ Prints □ Plans □ Samples □ Specifications
□ Copy of letter □ Change order □

<table>
<thead>
<tr>
<th>COPIES</th>
<th>DATE</th>
<th>NO.</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>&quot;As built&quot; drawing of the wells</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>Site plan showing exact well location</td>
</tr>
</tbody>
</table>

THESE ARE TRANSMITTED as checked below:

□ For approval □ Approved as submitted □ Resubmit copies for approval
□ For your use □ Approved as noted □ Submit copies for distribution
XX As requested □ Returned for corrections □ Return corrected prints
□ For review and comment □

□ FOR BIDS DUE 19 □ PRINTS RETURNED AFTER LOAN TO US

REMARKS These submittals complete requirements of the Well Drilling Permit dated 10/18/85.

CC TO: THERMAL ENGINEERING: Attn: Ken Mashima
AMFAC ENERGY: Attn: Ned Broadbent
CERRS - Attn: A.A. Tuzes

Dave Patton

COPY TO: Jack Castner

SIGNED: Masanobu R. Fujiooka, P.E.
**DRILLER'S REPORT**

**DESCRIPTION**

**Date of report:** Sept. 12, 1986  
**Person filing report:** L.H. Runnell

**A. OWNER** H. Power  
**NAME** Production #1  
**PRODUCTION** ISLAND  
**Oahu**

**B. GENERAL LOCATION** Campbell Park

**C. DRILLING COMPANY** Roscoe Moss Co.

**D. TYPE OF RIG** 60L  
**DRILLING COMPLETED**  
**DRILLER** J. Riddle

**Month Year**

**E. ELEVATION, msl:** Top of drilling platform 
**Height of drilling platform above ground surface**  
**ft.**  
**ft. elevation:** approx. 12'5"

**F. HOLE SIZE:**  
**24"**  
**Inch dia. to** 103 ft. below drilling platform.

**Inch dia. to**  
**ft. below drilling platform.

**Inch dia. to**  
**ft. below drilling platform.

**G. CASING INSTALLED:**  
**16 in.**  
**D. x PVC in. wall solid section to** 50 ft. below drilling platform.

**in. D. x PVC in. wall perforated section to** 109 ft. below drilling platform.

**Type of perforation:** Saw cut 1/8" openings

**H. ANNULUS:** Grouted  
**47 ft. to**  
**47 ft. below drilling platform.

**I. PERMANENT PUMP INSTALLATION:**  
- Pump type, make, serial no.  
- Capacity g.p.m.

- Motor type, H.P., voltage, r.p.m.

- Depth of pump intake setting ft. below which elevation is ft.

- Depth of bottom of airline ft. below which elevation is ft.

**HYDROLOGY**

**J. INITIAL WATER LEVEL:**  
**12'2" ft. below drilling platform.**  
**Date of measurement:** 4/11/86

**K. INITIAL CHLORIDE:**  
**ppm, total depth of well**  
**ft. below drilling platform**

**L. PUMPING TESTS:**  
**Reference point (R.P.) used:**  
**which elevation is** ft.

**Date:**  
**Sampling Date:**  
**Sampling Date**

**Start water level**  
**ft. below R. P.**

**End water level**  
**ft. below R. P.**

**Depth of well**  
**ft. below R. P.**

<table>
<thead>
<tr>
<th>Elapsed Time (hours)</th>
<th>Rate (gpm)</th>
<th>Draw-down (ft.)</th>
<th>Chloride (ppm)</th>
<th>Temp. (°F)</th>
<th>Elapsed Time (hours)</th>
<th>Rate (gpm)</th>
<th>Draw-down (ft.)</th>
<th>Chloride (ppm)</th>
<th>Temp. (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>to 5 to 10</td>
<td>3000</td>
<td>1'9&quot;</td>
<td></td>
<td>40</td>
<td>to 8 to 10</td>
<td>40</td>
<td></td>
<td></td>
<td>40</td>
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<tr>
<td>to 10</td>
<td>3000</td>
<td>1'9&quot;</td>
<td></td>
<td>40</td>
<td>to 10</td>
<td>40</td>
<td></td>
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<tr>
<td>to 10</td>
<td>3000</td>
<td>1'9&quot;</td>
<td></td>
<td>40</td>
<td>to 10</td>
<td>40</td>
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<tr>
<td>to 10</td>
<td>3000</td>
<td>1'9&quot;</td>
<td></td>
<td>40</td>
<td>to 10</td>
<td>40</td>
<td></td>
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<td>40</td>
</tr>
<tr>
<td>to 10</td>
<td>3000</td>
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<td></td>
<td>40</td>
<td>to 10</td>
<td>40</td>
<td></td>
<td></td>
<td>40</td>
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</tbody>
</table>

**M. DRILLER'S LOG:**

**Water Level**  
**ft.**

<table>
<thead>
<tr>
<th>Depth, ft.</th>
<th>Rock Description &amp; Remarks</th>
<th>Water Level, ft.</th>
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<tbody>
<tr>
<td>0 to 50</td>
<td>White coral</td>
<td></td>
</tr>
<tr>
<td>50 to 55</td>
<td>White coral &amp; sand</td>
<td></td>
</tr>
<tr>
<td>55 to 80</td>
<td>Sand, coral, hard</td>
<td></td>
</tr>
<tr>
<td>80 to 103</td>
<td>Hard coral</td>
<td></td>
</tr>
<tr>
<td>103 to 103</td>
<td>Sand, coral, hard</td>
<td></td>
</tr>
<tr>
<td>103 to 103</td>
<td>Hard coral</td>
<td></td>
</tr>
<tr>
<td>103 to 103</td>
<td>Sand, coral, hard</td>
<td></td>
</tr>
<tr>
<td>103 to 103</td>
<td>Hard coral</td>
<td></td>
</tr>
</tbody>
</table>

**N. REMARKS:** Casing PVC Class 100 .440 wall 3ft. Blank on bottom grouted plug.

**FOR DRILLER'S USE**

**Job Name**  
**Job No.**

**INSTRUCTIONS:** Send three(3) copies to: Manager-Chief Engineer, Division of Water and Land Development, P. O. Box 373, Honolulu, Hawaii 96809.

State of Hawaii

DEPARTMENT OF LAND & NATURAL RESOURCES
DIVISION OF WATER AND LAND DEVELOPMENT

DRILLER’S REPORT

Date of report: Sept. 12, 1986
Person filing report: L. H. Runnels

WELL
A. OWNER: H. Power
NAME: Production #2
Production #2
B. GENERAL LOCATION: Campbell Park
C. DRILLING COMPANY: Roscoe Moss Co.
D. TYPE OF RIG: 601
DRILLING COMPLETED: DRILLER J. Riddle

E. ELEVATION, ms#: Top of drilling platform ft. Bench mark and method used to determine
Height of drilling platform above ground surface ft. elevation: APPROX. 1/2”

F. HOLE SIZE:
24” inch dia. to 103” ft. below drilling platform.
7” inch dia. to 30” ft. below drilling platform.

G. CASING INSTALLED:
18” in OD x PVC, in wall solid section to 50” ft. below drilling platform.
18” in OD x PVC, in wall perforated section to 100” ft. below drilling platform.
Type of perforation: Saw cut 1/8” openings

H. ANNULUS: Grouted 47” ft. below drilling platform.
Gravel packed 47” ft. to 100” ft. below drilling platform.

I. PERMANENT PUMP INSTALLATION:
• Pump type, make, serial no. Capacity g.p.m.
Motor type, H.P., voltage, r.p.m.

J. INITIAL WATER LEVEL: 12.3” ft. below drilling platform. Date of measurement: 5/5/86

K. INITIAL CHLORIDE: ppm, total depth of well: 105” ft. below drilling platform

L. PUMPING TESTS:
Reference point (R.P) used: which elevation is ft.
Date
Start water level ft. below R. P.
End water level ft. below R. P.
Depth of well ft. below R. P.

M. DRILLER’S LOG:
Depth, ft. Rock Description & Remarks Water Level

<table>
<thead>
<tr>
<th>Depth (ft)</th>
<th>Rock Description &amp; Remarks</th>
<th>Water Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 25</td>
<td>Hard white coral</td>
<td>to</td>
</tr>
<tr>
<td>25 to 35</td>
<td>Soft coral &amp; sand</td>
<td>to</td>
</tr>
<tr>
<td>35 to 45</td>
<td>Hard coral</td>
<td>to</td>
</tr>
<tr>
<td>45 to 55</td>
<td>Pink, tan coral sand</td>
<td>to</td>
</tr>
<tr>
<td>55 to 105</td>
<td>Hard pink, tan coral</td>
<td>to</td>
</tr>
</tbody>
</table>

N. REMARKS: Casing PVC Class 100 .440 Wall 3ft blank on bottom of well grouted.

INSTRUCTIONS: Send three (3) copies to Manager-Chief Engineer, Division of Water and Land Development, P. O. Box 373, Honolulu, Hawaii 96820.

## H-Power Supply Wells

### Pump Test Data

<table>
<thead>
<tr>
<th>Well Number and Date</th>
<th>Time</th>
<th>Pumping Rate (gpm)</th>
<th>Drawdown (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3/8 - .9) Supply Well 1, June 28, 1986</td>
<td>0754</td>
<td>0000</td>
<td>0000</td>
</tr>
<tr>
<td></td>
<td>0755</td>
<td>2160</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td>0824</td>
<td>2160</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td>0825</td>
<td>2625</td>
<td>1.30</td>
</tr>
<tr>
<td></td>
<td>0854</td>
<td>2625</td>
<td>1.30</td>
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<tr>
<td></td>
<td>0855</td>
<td>3030</td>
<td>1.80</td>
</tr>
<tr>
<td></td>
<td>1114</td>
<td>3030</td>
<td>1.80</td>
</tr>
<tr>
<td>(3/8 - .10) Supply Well 2, June 24, 1986</td>
<td>1610</td>
<td>0000</td>
<td>0000</td>
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<tr>
<td></td>
<td>1611</td>
<td>1450</td>
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<td>1635</td>
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<tr>
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<td>1637</td>
<td>1930</td>
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<tr>
<td></td>
<td>1705</td>
<td>1930</td>
<td>1.90</td>
</tr>
<tr>
<td></td>
<td>1707</td>
<td>3070</td>
<td>4.70</td>
</tr>
<tr>
<td></td>
<td>1915</td>
<td>3070</td>
<td>4.70</td>
</tr>
</tbody>
</table>

(3407A/300A)
TO: Mr. Russel L. Smith, Jr.
Director and Chief Engineer
Department of Public Works
City and County of Honolulu

In accordance with Chapter 166 of Title 13, "Rules for the Control of Ground Water Use in the State of Hawaii", your application to drill two industrial well (State Well Nos. 1806-09, 10) at Campbell Industrial Park is approved subject to the following conditions:

1. A Driller's Well Completion Report (form enclosed) shall be submitted to the Division of Water and Land Development within 60 days after completion of the wells.
2. Pumping test data shall be submitted to the Division of Water and Land Development within 60 days after testing of the wells.
3. Monthly reports of pumpage shall be submitted after the wells are put into production.
4. Upon completion of the wells, submit "as-built" drawings of the wells, and a map showing the exact location of the wells.
5. The applicant comply with all applicable laws, rules and ordinances.

Date of Issuance
Enc. (Driller's Report Form)
cc: USGS
    Dept. of Health, Drinking Water Program
    Honolulu BWS
APPLICATION FOR (check one)  

□ WELL DRILLING PERMIT  □ WELL MODIFICATION PERMIT

Instructions: Send completed application and attachments to Department of Land and Natural Resources. Reference: Regulation 9, Dept. of Land & Natural Resources.

Is the well located in a Designated Ground Water Control Area?  □ Yes  □ No  If "yes", application must be accompanied by a Water Use and/or Water Supply Permit and a non-refundable filing fee of $100 payable to the Department of Land & Natural Resources. However, if application is for minor modification of well, filing fee may be waived. If "no", no filing fee is required. Filing fee is waived for federal, state, and county government agencies.

1. WELL LOCATION: Island  □ Oahu  Tax Map Key 9-1-26: 19  Attach a plot plan showing well location referenced to established property boundaries.

2. WATER USER  Honolulu Resource Recovery Venture

3. PROPOSED DRILLING COMPANY:  Inc. Windsor, CT

4. PROPOSED WORK:  □ Drill new well  □ Deepen  □ Redrill  □ Alter  □ Seal  □ Abandon  □ Install new pump  □ Replace pump  □ Modify pump

Fill in the diagram and briefly describe the proposed work (use back of form if necessary):

Drilling of 30-inch hole, installation of well screen and casing, installation of gravel pack and grout, well development, and well testing.

5. PROPOSED USE:  □ Municipal  □ Military  □ Agriculture  □ Industrial  □ Domestic  □ Disposal  □ Other (specify)

6. PROPOSED AMOUNT OF WITHDRAWAL: Check most appropriate box and fill in amount.

□ Daily 2,255,040 gallons  □ Monthly  □ Yearly

7. PROPOSED PUMP OR FLOW CAPACITY: 1,566 gallons per mi

Signature:  

Russell L. Smith Jr., Director and Chief Engineer  
City & County of Honolulu

Signature:  

Russell L. Smith Sr., Director and Chief Engineer, C. & C. of Honolulu

For Official Use:  
State Well No. 1806-1  
DLNR Permit No.  
DLNR Application No.
State of Hawaii
DEPARTMENT OF LAND AND NATURAL RESOURCES

APPLICATION FOR (check one)

☐ WELL DRILLING PERMIT  ☐ WELL MODIFICATION PERMIT

Instructions: Send completed application and attachments to Department of Land and Natural Resources, 9-1-26. Attach a plot plan showing well location referenced to established property boundaries.

Reference: Regulation 9, Dept. of Land & Natural Resources.

Is the well located in a Designated Ground Water Control Area?  ☐ Yes  ☐ No

If "yes", application must be accompanied by a Water Use and/or Water Supply Permit and a non-refundable filing fee of $100 payable to the Department of Land & Natural Resources. However, if application is for minor modification of well, filing fee may be waived. If "no", no filing fee is required. Filing fee is waived for federal, state, and county government agencies.

1. WELL LOCATION: Island: Oahu  Tax Map Key: 9-1-26: 38. Attach a plot plan showing well location referenced to established property boundaries.

2. WATER USER: Honolulu Resource Recovery Venture  Telephone: __________ Address: c/o Windsor, CT

3. PROPOSED DRILLING COMPANY: __________

4. PROPOSED WORK: ☐ Drill new well ☐ Deepen ☐ Redrill ☐ Alter ☐ Seal ☐ Abandon ☐ Install new pump ☐ Replace pump ☐ Modify pump

Fill in the diagram and briefly describe the proposed work (use back of form if necessary):

Drilling of 30-inch hole, installation of well screen and casing, installation of gravel pack and grout, well development, and well testing.

PROPOSED SECTION OF WELL

Elevation at top of casing: +15 ft, msl. Ground Elev. +14 ft, msl

Solid casing: Stainless steel

Material: PVC or steel

Length: 25 ft, Diameter: 24 in.

Wall thickness varies in.

Casing: Perforated Screen Material: PVC or stainless steel

Length: 25 ft, Diameter: 24 in.

Wall thickness varies in.

Openings: __ sq.in./L.F.

Open Hole: Length: __ in.

Diameter: __ in.

5. PROPOSED USE: ☐ Municipal ☐ Military ☐ Agriculture ☐ Industrial ☐ Domestic ☐ Disposal ☐ Other (specify) __________

6. PROPOSED AMOUNT OF WITHDRAWAL: Check most appropriate box and fill in amount.

☐ Daily 2,255,040 gallons  ☐ Monthly __________ gallons  ☐ Yearly __________ gallons

7. PROPOSED PUMP OR FLOW CAPACITY: __________ gallons per minute

Well is proposed as a backup to a proposed adjacent well.

Signature: ________________________________ Date: ____________

Water User: Russell L. Smith, Jr., Director and Chief Engineer

Signature: ________________________________

Landowner of Well Site: Russell L. Smith, Jr., Director and Chief Engineer, C. C. of Honolulu

Signature: ________________________________ Date: ____________

For Official Use:

State Well No. __________

DLNR Permit No. __________

DLNR Application No. __________