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### COMMISSION ON WATER RESOURCE MANAGEMENT

**ROUTE SLIP FOR PERMIT ISSUANCE 1/22/10**

**FROM:** RYAN  
**DATE:** 4/26/10  
**TO:** LINN. TO:  
**INIT:**  
- CHENG, C.  
- CHONG, R.  
- DANBARA, S.  
- ENGLAND, D.  
- FUJII, N.  
- HARDY, R.  
- HOAGBIN, S.  
- ICE, C.  
- IMATA, R.  
- KAWAHARA, K.  
- KIMURA, J.  
- KUNIMURA, I.  
- OKABE, Y.  
- OSORIO, K.  
- UYENO, D.  
- YODA, K.  
- YOSHINAGA, M.  

**WELL NUMBER:** 3588-05  
**WELL NAME:** Lincoln

---

**application type:** BOTH  
**1 WCP COVER LETTER**  
**2 WCP**  
**3 WELL CHECK PRINTOUT**

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**COMMENTS:**

- **date rec'd issues?**
- **if checked, send to applicant**

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**NOTES:**

- **DRILLER:** Rod Diamond  
  Diamond Construction and Water Well Drilling  
  23378 HCR#3 Box 14073  
  Keeau HI 96749  
  phone 966-4129  
  fax 966-4128  
  cell 987-8100  

- **TMK:** 1-5-041.021  
- **PUMP CAPACITY:** 28  
- **WELL OWNER:** Lincoln Tyler  
- **LAND OWNER:** Lincoln Tyler  
- **COMMENT DEADLINE:** 4/26/10

---

*Susan - please scan for me.*

Thx, Ryan

(ill send copy to Lincoln Tyler)
April 27, 2010

Mr. Rod Diamond
Diamond Construction and Water Well Drilling
HCR#3 Box 14073
Keeau, HI 96749

Dear Mr. Diamond:

Pump Installation Permit
Lincoln Well (Well No. 3588-05)

Enclosed are two (2) originals of your approved Pump Installation Permit for the captioned well(s) that authorize permanent pump installation work for your well(s). As part of the Chairperson's approval, the following special conditions were added and are part of your permit under Permit Condition 14:

**Special Conditions**

1. If the elevation benchmark needs to be altered, the permittee, well operator, and/or well owner shall ensure that the benchmark is transferred (or the well resurveyed) and documentation of the new benchmark shall be submitted to the Commission within sixty (60) days after the pump is installed.

2. Attached for your information are copies of the Department of Health's (DOH) review comments. Please note DOH's requirements related to discharge of effluent from well drilling and testing activities. Also, please contact the Noise Radiation and Indoor Air Quality Branch at 586-4700 to check compliance with construction noise permit requirements for this project.

The permittee is responsible for all conditions of the permit. This includes ensuring the submission of a completed Well Completion Report Part II form within sixty (60) days after the pump installation work is completed. Be advised that you may be subject to fines of up to $5,000 per day for any violations of your permit conditions starting from the permit approval date.

Please sign both permit originals and return one copy to the Commission office for our files.

**IMPORTANT** - Pump installation shall not commence until a fully signed permit is returned to the Commission.

If you have any questions, please call Ryan Imata of the Commission staff at 587-0255.

Sincerely,

[Signature]

LAURA H. THEILEN
Chairperson

Enclosure

c: Lincoln Tyler (with applicable comments – DOH SDWB, WWB, CWB)
USGS
Hawaii DWS
In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the pump installation for Lincoln Well (Well No. 3588-05) at TMK 1-5-041:021, Hawaii, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

1. The Chairperson to the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work covered by this permit commences and staff shall be allowed to inspect installation activities in accordance with § 13-168-15, Hawaii Administrative Rules (HAR).

2. No withdrawal of water shall be made other than for testing until a Certificate of Pump Installation Completion has been issued by the Commission.

3. This permit shall be prominently displayed, or made available, at the site of construction work until work is completed.

4. The pump installation permit shall be for installation of a 28 gpm rated capacity, or less, pump in the well. This permanent capacity may be reduced in the event that the pump test data does not support the capacity.

5. A water-level measurement access shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels.

6. The permittee shall install an approved meter or other appropriate means for measuring and reporting withdrawals and appropriate devices or means for measuring chlorides and temperature at the well head.

7. Well Completion Report Part II shall be submitted to the Chairperson within sixty (60) days after completion of work (please contact staff or visit www.hawaii.gov/dlnr/cwrm/resources_permits.htm for current form).

8. The permittee, well operator, and/or well owner shall comply with all applicable laws, rules, and ordinances, and non-compliance may be grounds for revocation of this permit.

9. The pump installation permit application and, if relevant, any related staff submittal approved by the Commission are incorporated into this permit by reference.

10. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

11. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

12. The work proposed in the pump installation permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than the date the permit expires.

13. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.

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

Date of Approval: April 26, 2010
Expiration Date: April 26, 2012

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the pump installer have signed, dated, and returned the permit to the Commission. I understand that this permit is not to be transferred to any other entity. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $5,000 per day starting from the permit date of approval.

Installer's Signature: ___________________________ C-57, C-57a, or A License #: BC-23379 Date: ____________
Printed Name: Rod Diamond Firm or Title: Diamond Construction and Water Well Drilling

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

Attachments
April 27, 2010

Ref: 3588-05.wcp

Mr. Rod Diamond
Diamond Construction and Water Well Drilling
HCR#3 Box 14073
Keeau, HI 96749

Dear Mr. Diamond:

Well Construction Permit
Lincoln Well (Well No. 3588-05)

Enclosed are two (2) copies of your approved Well Construction Permit for the captioned well(s) that authorize well construction activities but excludes installation work for a permanent pump. As part of the Chairperson's approval, the following special conditions were added and are part of your permit under Permit Condition 17:

Special Conditions

1. Attached for your information are copies of the Department of Health's (DOH) review comments. Please note DOH's requirements related to discharge of effluent from well drilling and testing activities. Also, please contact the Noise Radiation and Indoor Air Quality Branch at 586-4700 to check compliance with construction noise permit requirements for this project.

Please refer to the Permit Processes Worksheet (transmitted with your acknowledgement letter) for further information regarding the process of drilling a well and installing a pump.

No withdrawal of water shall be made other than for testing purposes until a certificate of pump installation completion has been issued by the Commission.

Please sign both permit originals and return one copy to the Commission office for our files. For copies of the aquifer pump test worksheet, please call staff or visit www.state.hi.us/dlnr/cwrm/forms.htm.

IMPORTANT - Drilling work shall not commence until a fully signed permit is returned to the Commission. The permit shall be prominently displayed or made available at the construction site during construction. Be advised that you may be subject to fines of up to $5,000 per day for any violations of your permit conditions starting from the permit approval date.

If you have any questions, please call Ryan Imata of the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), 274-3141 (Kauai), 984-2400 (Maui), or 1-800-468-4644 (Lanai & Molokai), extension 70255.

Sincerely,

Laura H. ThieLEN
Chairperson

Enclosures

c: Lincoln Tyler (with applicable comments – DOH SDWB, WWB, CWB)
USGS
Hawaii DWS
WELL CONSTRUCTION PERMIT

Lincoln Well, Well No. 3588-05

Note: This permit shall be prominently displayed at the construction site until the work is completed.

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the construction and testing of Lincoln Well (Well No. 3588-05) at TMK 1-5-041:021, Hawaii, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work authorized by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules (HAR).

2. This permit shall be prominently displayed, or made available, at the site of construction work until work is completed.

3. The well construction permit shall be for construction and testing of the well only. The permittee shall coordinate with the Chairperson and conduct a pumping test in accordance with the HWCPIS (the latest pump test worksheet can be obtained by contacting Commission staff or at www.hawaii.gov/dlnr/cwrrnlresources_permits.htm). The permittee shall submit to the Chairperson the test results as a basis for supporting an application to install a permanent pump. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson. No withdrawal of water shall be made for purposes other than testing without a Certificate of Pump Installation Completion. The permitted pump capacity described on the pump installation permit may be reduced in the event that the pump test results do not support the capacity.

4. In basalt ground water, the depth of the well may not exceed one-fourth (1/4) of the theoretical thickness (41 times initial head) of the basalt ground water unless otherwise authorized by the Chairperson. If it can be shown that the well does not tap basalt ground water then this condition may be waived after consultation with and acceptance by Commission staff. However, in no instance can the well be drilled deeper than one-half (1/2) of the theoretical thickness without Commission approval.

5. The permittee shall incorporate mitigation measures to prevent construction debris from entering the aquatic environment, schedule work to avoid periods of high rainfall, and revegetate any cleared areas as soon as possible.

6. In the event that historically significant remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee shall stop work and immediately notify the Department of Land and Natural Resources' State Historic Preservation Division. Work may recommence only after written concurrence by the State Historic Preservation Division.

7. The proposed well construction shall not adversely affect existing or future legal uses of water in the area, including any surface water or established instream flow standards. This permit or the authorization to construct the well shall not constitute a determination of correlative water rights.

8. The Well Completion Report Part I shall be submitted to the Chairperson within sixty (60) days after completion of work (please contact staff or visit www.hawaii.gov/dlnr/cwrrnlresources_permits.htm for current form).

9. The permittee shall comply with all applicable laws, rules, and ordinances; non-compliance may be grounds for revocation of this permit.

10. The well construction permit application and, if relevant, any related staff submittal approved by the Commission are incorporated into this permit by reference.

11. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

12. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

13. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit shall be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than the date the permit expires.

14. If the well is not to be used it must be properly capped. If the well is to be abandoned during the course of the project then the permittee must apply for a well abandonment permit in accordance with §13-168-12(f), HAR, prior to any well sealing or plugging work.

15. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.

16. This permit shall apply to the location shown on the application only. If the well is to be relocated, the permittee shall apply for a new well construction/pump installation permit in accordance with §13-168-12(d), HAR.

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

Date of Approval: April 26, 2010
Expiration Date: April 26, 2012

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I have signed, dated, and returned the permit to the Commission. I understand that this permit is not to be transferred to any other entity. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $5,000 per day starting from the permit date of approval.

Driller's Signature: __________________________ C-57 License #: BC-23379 Date: __________________________

Printed Name: Rod Diamond Firm or Title: Diamond Construction and Water Well Drilling

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

Attachment
## Well Check Program

4/1/04 - Revised for update to Well Standards (February 2004)

### Data Input

<table>
<thead>
<tr>
<th>Well Number</th>
<th>3588-05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Name</td>
<td>Lincoln</td>
</tr>
<tr>
<td>Ground Elevation</td>
<td>162</td>
</tr>
<tr>
<td>Cement Grout</td>
<td>115</td>
</tr>
<tr>
<td>Grouting Method</td>
<td>other</td>
</tr>
<tr>
<td>Hole Diameter</td>
<td>8.5</td>
</tr>
<tr>
<td>Total Depth</td>
<td>164</td>
</tr>
<tr>
<td>Water Level</td>
<td>4  Depth to water 148</td>
</tr>
<tr>
<td>Public Water Supply Well?</td>
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</tr>
<tr>
<td>Solid Casing Material</td>
<td>pvc plastic</td>
</tr>
<tr>
<td>Solid Casing Specification</td>
<td>Schedule 40</td>
</tr>
<tr>
<td>Solid Casing Length</td>
<td>152</td>
</tr>
<tr>
<td>Solid Casing Diameter</td>
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<tr>
<td>Solid Casing Wall Thickness</td>
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<tr>
<td>Open Casing Length</td>
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### Results

#### Well Depth

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<thead>
<tr>
<th>Theoretical Thickness of Aquifer</th>
<th>164</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4 Aquifer Thickness</td>
<td>41</td>
</tr>
<tr>
<td>Depth of Well below Sea Level</td>
<td>-12 okay Section 2.2</td>
</tr>
</tbody>
</table>

#### Well Casing

<table>
<thead>
<tr>
<th>Minimum Wall Thickness</th>
<th>pvc plastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>pvc plastic</td>
</tr>
<tr>
<td>Minimum Thickness per standards</td>
<td>no requirement</td>
</tr>
<tr>
<td>Wall Thickness Provided</td>
<td>0 no standard Section 2.4(b)</td>
</tr>
<tr>
<td>Minimum Length of Solid Casing</td>
<td>133.2</td>
</tr>
<tr>
<td>90% of ground to top of aquifer</td>
<td>152 okay Section 2.4(c)</td>
</tr>
<tr>
<td>Length of solid casing Provided</td>
<td>Schedule 40 in compliance Section 2.4(d)</td>
</tr>
<tr>
<td>Casing Material</td>
<td>Schedule 40 in compliance Section 2.4(d)</td>
</tr>
<tr>
<td>(for pvc only - check for 200' limit)</td>
<td>okay Section 2.4(d)</td>
</tr>
</tbody>
</table>

#### Annular Space

<table>
<thead>
<tr>
<th>Depth of Grouting</th>
<th>103.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth of Grouting provided</td>
<td>115 okay Section 2.6(c)</td>
</tr>
<tr>
<td>Minimum Annular Space required</td>
<td>2</td>
</tr>
<tr>
<td>Thickness of Annular Space</td>
<td>2 okay Section 2.6(d)</td>
</tr>
</tbody>
</table>
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

April 9, 2010

TO: Honorable Chiyome Fukino, M.D., Director
Department of Health
Attention: Acting Chief, Wastewater Branch

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

SUBJECT: Well Construction/Pump Installation Permit Application
Lincoln Well (Well No. 3588-05) [TMK: (B) 1-5 41:21]

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by April 26, 2010. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

RI:ss
Attachment(s)

RESPONSE: UIC Remarks: Conditions 2 and 4

1. This well qualifies as a source which will serve as a source of suitable water to a public water system (defined in 2 or more people at least 60 days per year or has 15 or more service connections) and must receive a Certificate of Health approval or review to ensure it is to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Public Water Systems, §11-20-29.

2. This well does not qualify as a source serving a public water system (serves less than 15 people or more people at least 60 days per year or 15 service connections) and if the water is used for drinking, the private owner should test for bacteriological and chemical presence before initiating such use and normally monitor the water quality thereafter. However, if future planned use from this source increases to meet the public water system definition then Director of Health approval is required prior to implementation.

3. If the well is used to supply both portable and non-portable purposes in a single system, the user shall eliminate cross-connections and backflow preventers by any gap or an approved backflow preventer, and by clearly labeling all non-portable spigots with warning signs to prevent inadvertent consumption of non-portable water. Backflow prevention devices should be routinely inspected and tested.

4. It does not appear that this well will be used for consumptive purposes and is not subject to Safe Drinking Water Regulations.

5. For the applicant's information, a source of suitable wellwater contamination (i.e. water) is not located near the proposed well site (information attached).

An NPDES permit is required.

Other relevant DOH rules, regulations, information, or recommendations are attached.

In the event that the location of the well changes but is still within the parcel described on this application, our division considers the comments to still be applicable, and we do not need to review the new location.

No comments/objections

Contact Person: 
Phone: 587-0738

Signed: 
Date: 4/21/10
CWRM Application Source: Lincoln Well
(Well No. 3588-05)
TMK: (3) 1-5-041:021

Safe Drinking Water Branch (SDWB) - Engineering Section

- See attached Private Wells information sheet

SDWB Underground Injection Control (UIC) Section

- In general, a shallow well, or a well that recharges quickly from local rainfall, should not be used as a potable water source because such a well increases the risk of having unsatisfactory groundwater quality that when consumed may compromise health. Factors that directly influence a well's groundwater quality include wastewater disposal systems (cesspools, septic systems, drainage wells), lawn/garden/crop-growing activities, and even the proximity to the ocean where salt water intrusion may occur.

- Well water quality should be initially and periodically tested for it's acceptable and intended use, especially if for human consumption. Water quality should not be presumed acceptable and unchanging. Land-based activities around the well and within the well's recharge area may, over time, have an unacceptable effect on the well's water quality. Well construction materials and related equipment could also affect water quality.
WARNING! As the owner of a privately-owned well, you should **not** assume that water from your well is safe for consumption. It is your responsibility to make sure that your well water is safe to drink. The only way to do this is to have your well regularly tested for bacteriological and chemical contaminants.

There are no regulations controlling water quality in private wells serving individual residences as there are for public water systems (public or privately owned utilities supplying water to 25 or more people or 15 service connections). In other words, there are no enforceable limits for contaminants and no requirements for regular testing. Private wells are often found in rural areas, where many activities such as onsite wastewater disposal can contaminate the ground water.

**U.S. Environmental Protection Agency (EPA) Recommendations**

The EPA recommends that private well owners test their well water each year for such contaminants as Total Coliform Bacteria, Nitrates, as well as any other contaminants that may be of concern in your area. More frequent testing may be appropriate if you suspect a problem. EPA also suggests that you consider testing for pesticides, organic chemicals, and heavy metals before using it for the first time. Please refer to the EPA website on Private Drinking Water Wells at [http://www.epa.gov/safewater/privatewells/faq.html](http://www.epa.gov/safewater/privatewells/faq.html)

**Other Contaminants**

Water testing can be very expensive. It is important that you spend time to identify what other potential contaminants may be of concern. Please refer to the EPA website on Private Drinking Water Wells at [http://www.epa.gov/safewater/privatewells/whatyoucando.html](http://www.epa.gov/safewater/privatewells/whatyoucando.html) for more helpful information. Be aware of what and how you use and dispose of household and garden chemicals. Also determine the location of nearby septic tanks or cesspools, and agricultural or industrial activities in the area. General information on known chemical contamination of ground water in Hawaii can also be found at the DOH website [www.hawaii.gov/health/environmental/water/sdwb/conmaps/pdf/conmaps05.pdf](http://www.hawaii.gov/health/environmental/water/sdwb/conmaps/pdf/conmaps05.pdf)

**Laboratories**

Local commercial laboratories can be found in the yellow pages of the telephone book under "Laboratories, Analytical." Whenever possible, utilize a laboratory that is certified or approved for the specific drinking water tests and carefully follow their instructions for collecting, storing, and transporting the samples. Just be sure to ask the lab to use EPA approved methods for drinking water analysis. A list of labs certified or approved by the Department of Health can be found at [www.hawaii.gov/health/environmental/water/sdwb/pdf/Testing%20Labs.pdf](http://www.hawaii.gov/health/environmental/water/sdwb/pdf/Testing%20Labs.pdf). As lab certification status changes constantly, confirm their status when you contact the lab. Please note that the list is limited to currently regulated contaminants in public water systems.

**Results**

Once the lab provides you with the test results, you will be in a better position to determine if your well water is safe to drink or what contaminant you need to treat for. Generally, you should compare the results with Federal ([www.epa.gov/safewater/mcl.html](http://www.epa.gov/safewater/mcl.html)) and State ([www.hawaii.gov/health/environmental/water/sdwb/pdf/State%20MCL.pdf](http://www.hawaii.gov/health/environmental/water/sdwb/pdf/State%20MCL.pdf)) drinking water standards. Where your test results are greater than the State or Federal maximum contaminant levels, your well water should be considered as **unsafe** for consumption.
April 9, 2010

TO: Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attention: Acting Chief, Wastewater Branch
Stuart Yamada, Chief, Safe Drinking Water Branch
Alec Wong, Chief, Clean Water Branch
Dr. Keith Kawaoka, Office of Hazard Evaluation and Emergency Response

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

SUBJECT: Well Construction/Pump Installation Permit Application
Lincoln Well (Well No. 3588-05)

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by April 26, 2010. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

RESPONSE:

[Blank]

Contact Person: [Signature] Phone: 586-4303
Signed: [Signature] Date: 4-10-10
The Department of Health, Clean Water Branch (CWB) has the following comments:

1. For Well-Drilling Activities

Any discharge to State waters of treated process wastewater effluent associated with well drilling activities is regulated by Hawaii Administrative Rules (HAR), Title 11, Chapter 55, Appendix I, effective October 22, 2007, and compiled June 15, 2009. Treated process wastewater effluent covered by this general permit includes well drilling slurries, lubricating fluids wastewater, and well purge wastewater. This general permit does not cover well pump testing. The applicable Notice of Intent (NOI) Forms and filing fee shall be submitted at least 30 calendar days before the start of discharge to the:

Department of Health
Clean Water Branch
919 Ala Moana Boulevard, Room 301
Honolulu, Hawaii 96814-4920

The CWB-NOI Forms are available online at http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html. Inquiries may be directed to the CWB at (808) 586-4309 or by fax (808) 586-4352.

2. For Well Pump Testing

The discharger shall take all measures necessary to prevent the discharge of pollutants from entering State waters. Such measures shall include, if necessary, containment of initial discharge until the discharge is essentially free of pollutants. If the discharge is entering a stream or river bed, best management practices shall be implemented to prevent the discharge from disturbing the clarity of the receiving water. If the discharge is entering a storm drain, the discharger must obtain written permission from the owner of the storm drain prior to discharge. Furthermore, best management practices shall be implemented to prevent the discharge from collecting sediments and other pollutants prior to entering the storm drain.
3. For Construction Activities Disturbing One (1) or More Acres of Total Land Area

By HAR, Title 11, Chapter 55, Appendix C, effective October 22, 2007, and compiled June 15, 2009, an NPDES permit or Notice of General Permit Coverage is required before the start of the construction activities that result in the disturbance of one (1) or more acres of total land area, including clearing, grading, and excavation. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. An NOI (see Comment No. 1, above) shall be submitted 30 calendar days before the start of construction activities.
TO: Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attention: Acting Chief, Wastewater Branch
Stuart Yamada, Chief, Safe Drinking Water Branch
Alex Wong, Chief, Clean Water Branch
Dr. Keith Kawaoka, Office of Hazard Evaluation and Emergency Response

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

SUBJECT: Well Construction/Pump Installation Permit Application
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Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

R: ls
Attachment(s)

RESPONSE:

[1] This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60 days per year or 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §§11-20-27 to 29.

[2] This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 60 days per year or 15 service connections) and if the well water is used for drinking, the private owner should notify, in writing, the State Department of Health and implement all required public water system regulations.

[3] If the well is used to supply both potable and non-potable purposes in a single system, the user shall eliminate cross-contamination and backflow connections by physically separating potable and non-potable systems by an air gap or an approved backflow preventer, and by clearly labeling all non-potable systems with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected and maintained.

[4] It does not appear that this well will be used for consumptive purposes and is not subject to Safe Drinking Water Regulations.

[5] For the applicant's information, a source of potable wastewater contamination [if any] is not located near the proposed well site (information attached).


[7] Other relevant DOH rules/regulations, information, or recommendations are attached.

[8] In the event that the location of the well changes but is still within the parcel described on this application, our division considers the comments to still be applicable and do not need to review the new location.

No comments/objections

Contact Person: Richard Palmer
Phone: 587-0257

Signed: Richard Palmer
Date: 16 April 2010
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

April 9, 2010

TO: Honorable Chiyome L. Fukino, M.D., Director
     Department of Health
     Attention: Acting Chief, Wastewater Branch
     Stuart Yamada, Chief, Safe Drinking Water Branch
     Alec Wong, Chief, Clean Water Branch
     Dr. Keith Kawaoka, Office of Hazard Evaluation and Emergency Response

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

SUBJECT: Well Construction/Pump Installation Permit Application
         Lincoln Well (Well No. 3588-05)

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Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Lisa Imata of the Commission staff at 587-0255.

RESPONSE:

This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to use to comply with Hawaii Administrative Rules (HAR), Title II, Chapter 20, Rules Relating to Potable Water Systems, §§20-29.

This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 60 days per year or 15 service connections) and if the well water is used for drinking, the private owner should test for bacteriological and chemical presence before initiating such use and routinely monitor the water quality thereafter. However, if future planned use from this source increases to meet the public water system definition then Director of Health approval is required prior to implementation.

If the well is used to supply both potable and non-potable purposes in a single system, the user shall eliminate cross-connections and backflow connections by physically separating potable and non-potable systems by an air gap or an approved backflow preventer, and by clearly labeling all non-potable spigots with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected and tested.

It does not appear that this well will be used for consumptive purposes and is not subject to Safe Drinking Water Regulations.

For the applicant's information, a source of possible wastewater contamination is not located near the proposed well site (information attached).

An NPDES permit is required.

Other relevant DOH rules/regulations, information, or recommendations are attached.

One-Stop database screen

In the event that the location of the well changes but is still within the parcel described on this application, our division considers the comments to still be applicable, and we do not need to review the new location.

No comments/object.

Contact Person: Jerry Nunogawa, Eng. in Hilo 933-0401

Signed: [Signature]

Date: 4-16-2010
OWNER: LINCOLN TITLE
TMK: (3) 1-5-041-00
LOT SIZE: ONE ACRE
LOCATION: 15TH AVENUE,
HAWAIIAN PARADISE PARK,
KEAAU, PUNA
NUMBER OF BEDROOMS/USE: TWO

LOT SIZE: ONE ACRE
LOCATION: 15TH AVENUE,
HAWAIIAN PARADISE PARK,
KEAAU, PUNA
NUMBER OF BEDROOMS/USE: TWO

PROPOSED PRIVATE WATER WELL
50' MINIMUM FROM CESSPOOL
(APPROXIMATE LOCATION)

SCALE: 1" = 40'

NOTES:
1. Recommended location of the cesspool
2. Final location to be determined in the field
3. MINIMUM separation distances:
   Property line: 9'
   Building wall line: 5'
   Between cesspools: 18'
   Ground water: 5'
   Stream: 50'
   Large trees: 10'

FOR CESSPOOL ONLY
THIS WORK WAS PREPARED BY ME OR UNDER
MY SUPERVISION AND CONSTRUCTION OF THIS
PROJECT WILL BE UNDER MY OBSERVATION

PAUL NASH, P.E.
ATLAS ENGINEERING, LLC
P.O. BOX 11188, Hilo, HI 96721
PH: 965-7350 FAX: 965-953

SITE PLAN FOR CESSPOOL
6" inspection port with screw cap

FINISHED GRADE

MIN. 18"

4" INLET PIPE

MIN. 12" MANHOLE

MIN. 12" BEYOND PERIMETER OF EXCAVATION

MIN 6" BACKFILL OF ONE-INCH SIZE ROCK OR GRAVEL BETWEEN SIDEWALL AND RING

CONCRETE RING OR HOLLOW TILE BLOCK (IF REQUIRED BY ENGINEER)

DEPTCH

MIN 10' BELOW INLET PIPE BUT FINAL DEPTH TO BE DETERMINED BY ENGINEER BASED ON SOIL CONDITION IN CESSPOOL EXCAVATION

BOTTOM

5" MIN TO GROUNDWATER TABLE

MIN 8" MAX 7.5'

CESSPOOL DETAILS

NO SCALE

#4 REBARS @ 8" O.C. BOTH DIRECTIONS

SECTION A-A

CIRCULAR CONCRETE COVER DETAIL

NOTES:

1. CESSPOOL MUST BE INSTALLED BY EITHER OF THE FOLLOWING LICENSED CONTRACTORS: C-9 CESSPOOL; C-37 PLUMBING; THE A" GENERAL ENGINEERING; AND C-43.

2. ENGINEER MUST INSPECT CESSPOOL EXCAVATION BEFORE CONCRETE RINGS (IF REQUIRED) AND CONCRETE TOP ARE INSTALLED.

3. SEPTIC SYSTEM SHALL BE REQUIRED IF WATER TABLE IS ENCOUNTERED DURING EXCAVATION. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF GROUNDWATER IS ENCOUNTERED.

THIS WORK HAS BEEN PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY SUPERVISION.

PAUL A. NICK
REGISTERED PROFESSIONAL ENGINEER
No. 7499-5
HAWAII, U.S.A.
Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. Please respond by returning this cover memo form by April 26, 2010. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

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

X Other comments: Original source of private title was issued prior to statehood.

Contact Person: Gary Martin
Phone: 587-0421

Signed: Gary Martin
Date: 4/15/10
MEMORANDUM

TO: Ken C. Kawahara, P.E., Deputy Director  
State Commission on Water Resource Management  
P.O. Box 621, Honolulu, Hawai‘i 96809  
c/o Ryan Imata (Ryan.R.Imata@hawaii.gov)

FROM: Theresa K. Donham, Lead Archaeologist, Hawai‘i Island Section

SUBJECT: Chapter 6E-42 Historic Preservation Review –  
Well Construction/Pump Installation Permit Application, Lincoln’s Well (3588-05)  
Kea‘au Ahupua‘a, Puna District, Island of Hawai‘i  
TMK: (3) 1-5-041: 021

April 14, 2010  

Thank you for the opportunity to comment on the subject permit application, which was received in our  
office on April 12, 2009. The proposed well will be located within a 1-acre parcel along 17th Street in the  
Hawaiian Paradise Park subdivision. At the time of this review, the parcel has been grubbed and leveled  
for construction of a dwelling. The well site is located within the cleared and leveled portion of the lot.

We believe that no historic properties will be affected by this proposed activity because:

☐ New construction or land alteration will not occur in connection with the permit  
☒ Residential construction 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 for the development  
☐ Other:

In the event that historic resources, including human skeletal remains, lava tubes, and lava blisters/bubbles are identified during the construction activities, all work should cease in the immediate  
vicinity of the find, the find should be protected from additional disturbance, and the State Historic  
Preservation Division, Hawaii Island Section, should be contacted immediately at (808) 933-7653. Please  
contact Theresa K. Donham at (808) 933-7653 if you have any questions or concerns regarding this  
memorandum.
COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR NEW APPLICATIONS

FROM: RYAN
DATE: 11-Jan-10

SUSPENSE DATE: 18-Jan-10

TO: CHING, F. TO: KUNIMURA, I.
INT. NAKAMA, L.

INT. OHYE, M.

4 INT. SAKODA, E.

INT. SWANSON, S.

INT. UYENO, D.

INT. YODA, K.

INT. YOSHINAGA, M.

1 Approval

3 Signature

4 Information

PLEASE:

See Me

1 Review & Comment

Take Action

Type Draft acknowledgment

2 Type Final, label file folder, update People.db

5 File

Xerox copies

TO: FUJII, N.

TO: GOODING, K.

TO: HIGA, D.

TO: HOAGBIN, S.

TO: ICE, C.

TO: IMATA, R.

TO: KAWAHARA, K.

See Me

1 Review & Comment

Take Action

Type Draft acknowledgment

2 Type Final, label file folder, update People.db

5 File

Xerox copies

WELL NUMBER 3588-65 WELL NAME Lincoln WUP Number na

WELL CONSTRUCTION PUMP INSTALLATION

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:

DATE ACTION

7-4-10 Shon pohiki w country plans cleared 1/26/10

Susan - pls scan so I can

Send toظاهرة

The

QBP
April 9, 2010

Mr. Rod Diamond
Diamond Construction and Water Well Drilling
HCR #3 Box 14073
Keeau, HI 96749

Dear Mr. Diamond:

Well Construction/Pump Installation Permit Application for Well No. 3588-05

We acknowledge receipt, on January 26, 2010, of your completed Well Construction/Pump Installation permit application and filing fee for the Lincoln Well (Well No. 3588-05). You can expect your application to be processed within ninety (90) days from this date.

For your information, the attached table describes the process, responsible parties, and deadline requirements for drilling or modifying a well and installing, modifying, or replacing a pump.

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 well construction/pump installation completion letter is issued to the well operator and landowner. 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 Ryan Imata of the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), 274-3141 (Kauai), 984-2400 (Maui), or 1-800-468-4644 (Lanai & Molokai) extension 70255.

Sincerely,

KEN C. KAWAHARA, P.E.
Deputy Director

RI:ss
Attachment

c: Lincoln Tyler
TO: Honorable Chiyome L. Fukino, M.D., Director
Department of Health

Attention: Acting Chief, Wastewater Branch
Stuart Yamada, Chief, Safe Drinking Water Branch
Alec Wong, Chief, Clean Water Branch
Dr. Keith Kawaoka, Office of Hazard Evaluation and Emergency Response

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

SUBJECT: Well Construction/Pump Installation Permit Application
Lincoln Well (Well No. 3588-05)

April 9, 2010

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by April 26, 2010. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

RESPONSE:

This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title II, Chapter 20, Rules Relating to Potable Water Systems, §11-20-29.

This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 60 days per year or 15 service connections) and if the well water is used for drinking, the private owner should test for bacteriological and chemical presence before initiating such use and routinely monitor the water quality thereafter. However, if future planned use from this source increases to meet the public water system definition then Director of Health approval is required.

If the well is used to supply both potable and non-potable purposes in a single system, the user shall eliminate cross-connections and backflow connections by physically separating potable and non-potable systems by an air gap or an approved backflow preventer, and by clearly labeling all non-potable spigots with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected and tested.

It does not appear that this well will be used for consumptive purposes and is not subject to Safe Drinking Water Regulations.

For the applicant's information, a source of possible wastewater contamination is not located near the proposed well site (information attached).

An NPDES permit is required.

Other relevant DOH rules/regulations, information, or recommendations are attached.

In the event that the location of the well changes but is still within the parcel described on this application, our division considers the comments to still be applicable, and we do not need to review the new location.

No comments/objections

Contact Person: _______________________________ Phone: _______________________________

Signed: _______________________________ Date: _______________________________
April 9, 2010

TO: Morris Atta, Administrator
Land Division

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

SUBJECT: Well Construction/Pump Installation Permit Application
Lincoln Well (Well No. 3588-05) TMK 1-5-041.021

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. Please respond by returning this cover memo form by April 26, 2010. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

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: ____________________________
April 9, 2010

TO: Dr. Puaalaokalani Aiu, Administrator
   Historic Preservation

Morgan Davis
   Historic Preservation

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

SUBJECT: Well Construction/Pump Installation Permit Application
         Lincoln Well (Well No. 3588-05) TMK: 1-5-041.021

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. Please respond by returning this cover memo form by April 26, 2010. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255. If you require additional information regarding specific information that can be provided by the applicant, please contact the applicant directly at the contact information provided on the application form.

RESPONSE:

[ ] This is a [ ] public (county or state) project [ ] private project and [ ] will [ ] may disturb historic sites.

[ ] We concur that the work described under this permit will not disturb historic sites.

[ ] We do not concur that the work described under this permit will not disturb historic sites. We require the following for our concurrence:

Contact Person: __________________ Phone: __________________

Signed: __________________ Date: ________________
Assessed values and Building Details reflect tax year 2010 for Oahu, and 2009 for all other islands. Taxes reflect tax year 2009.

Search criteria: TMK Taxkey 3-1-5-41-21

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<th>Owner/Lessee</th>
<th>Bds</th>
<th>Bths</th>
<th>Land area</th>
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<td>Hawaiian F 15TH TYLER,</td>
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<td>1.00 ac</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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### GENERAL LICENSEE

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<td>CONDITIONS AND LIMITATIONS:</td>
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<td>BUSINESS ADDR: HCR #3 BOX 14073 KEAAU HI 96749</td>
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<tr>
<td>MAILING ADDR:</td>
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</table>

Click here to enter search criteria for prior complaints history - >

For prior complaints and disciplinary history, contact licensing and business information center at (808) 587-3295.

License information on this site reflects information in the Professional and Vocational Licensing Division as of April 8, 2010; however, applications and forms are subject to standard processing time, and the information here does not reflect pending changes which are being reviewed. The site is updated daily, Monday through Friday, except holidays. The State of Hawaii makes no guarantees as to the accuracy of the information accessed, the timeliness of the delivery of transactions, delivery to the correct party, preservation of the privacy and security of users and makes no warranties, including warranty of merchantability and fitness for particular purpose. User is advised that if the information obtained herein is to be reasonably relied upon, user should confirm the accuracy of such information with the provider thereof.
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**TOTAL** $ 50.00

**REMARKS:**
- LINE (1) Lincoln's Well
- LINE (2) Thy Well Be Done
- LINE (3)
- LINE (4)
- LINE (5)
- LINE (6)
- LINE (7)
- LINE (8)
- LINE (9)
- LINE (10)
### WELL LOCATION INFORMATION

1. **State Well No.** (if family assigned)
2. **Well Name**
3. **Well Log**
4. **Well Log**
5. **Total Sand**
6. **Total Gravel**
7. **Well Operation's Name/Company**
8. **Well Operator's Contact**
9. **Landowner's Name/Company**
10. **Landowner's Contact**

**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 587-0225. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.**

#### PROPOSED WELL CONSTRUCTION

<table>
<thead>
<tr>
<th>Proposed Work</th>
<th>Proposed Pump Installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>X Construct New Well</td>
<td>X Installation of New Pump</td>
</tr>
<tr>
<td>X Modify Existing Well</td>
<td>X Replacement Pump</td>
</tr>
<tr>
<td>X Abandon/Seal Well</td>
<td>X Proposed Pumping Rate, gpm (gallons per minute)</td>
</tr>
<tr>
<td>X 5 gallons per minute</td>
<td>X 110 gallons per minute</td>
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</table>

#### PROPOSED PUMP INSTALLATION

<table>
<thead>
<tr>
<th>Method of flow measurement</th>
<th>Flow meter</th>
</tr>
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<tbody>
<tr>
<td>X Open Pipe</td>
<td>X Shaft</td>
</tr>
<tr>
<td>X Grill</td>
<td>X Other</td>
</tr>
</tbody>
</table>

#### 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):**

#### OTHER LEGAL REQUIREMENTS

- **21. Conservation District Use Permit (CDUP):**
  - Required, CDUP #:
  - Date approved:
  - Not in Conservation
- **22. Special Management Area Permit (SMAP):**
  - Required, SMA #:
  - Date approved:
  - Not in Special Management Area
- **23. Historic Preservation Permit (HPP):**
  - Required, HPP #:
  - Date approved:
  - Not in Historic Preservation District (HPD)
  - I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
  - X I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.

**NOTE:** Signing below indicates that the signatory understands and swears that the information provided is accurate and true to the best of their knowledge. Further, the signatory understands 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 construction/abandonment report within 60 days after the completion date of the permitted work. In the event that the application is not completed correctly, any permit may be suspended until the time is brought to compliance, and any work done while the permit is in suspension may result in fines of up to $5000/day.

### WELL DRELLER

**Rodney K Diamond**

**BC-23739**

**HCR #3 Box 14073 Keaau HI 96749**

**Phone:** 987-8100  
**Fax:** 966-4129

### PUMP INSTALLER

**Rodney K Diamond**

**BC-23739**

**HCR #3 Box 14073 Keaau HI 96749**

**Phone:** 987-8100  
**Fax:** 966-4129
PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Hole Diameter: 8.5 inches

Elevation at top of casing: 153 ft. msl*

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

Ground Elevation: 152 ft. msl*

Grouting:
- Positive Displacement
- Other

Annular space between hole and casing (1.5" for positive displacement, 3" for other methods):
- 2 in

Cement Grout: 115 ft. (min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)

Solid Casing: (90% x (Ground Elevation - Water Level Elev))
- Total Length: 152 ft.
- Nominal Diameter: 4.5 in.
- Wall Thickness: 840 in.
- Bottom Elevation: -0 ft. msl*

Open Casing:
- Perforated
- Screen
- Total Length: 12 ft.
- Nominal Diameter: 4.5 in.
- Wall Thickness: 840 in.
- Bottom Elevation: -12 ft. msl*

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

Well Elevation at top of casing 153 ft., msl*

Example: Estimated + 2 ft. Water Level Elev. - bottom elevation of

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 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 D2241): (check one) □ Schedule 40 □ Schedule 80 □ Schedule 120
- Thermoset Plastic: (check one) □ Reinforced Plastic Mortar Pressure 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 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 D2241): (check one) □ Schedule 40 □ Schedule 80 □ Schedule 120
- Thermoset Plastic: (check one) □ Reinforced Plastic Mortar Pressure 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

Total Length: ______ ft.
Nominal Diameter: ___ in.
Wall Thickness: ___ in.
Bottom Elevation: ___ ft. msl*

Total Depth: 164 feet
Material:
- Crushed Basalt
- Rounded Gravel

Estimated Water Level Elevation:
- 4 ft. msl*

Rock or Gravel Packing:
- 49 ft.

* 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 - ) + 18.5 ft.

Example: Estimated + 2 ft. Water Level Elev. - bottom elevation of Well Limit = (2) + 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 A500) □ 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 D2241): (check one) □ Schedule 40 □ Schedule 80 □ Schedule 120
- Thermoset Plastic: (check one) □ Reinforced Plastic Mortar Pressure 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

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