CHECKLIST

**WELL CONSTRUCTION PERMIT**

**PUMP INSTALLATION PERMIT**

**WELL NAME or LOCATION:** KIHEKUULA - ALEXANDER & BALDWIN, ISLAND: KAUA'I

**WELL NUMBER:** 5428-01 (tentative)  
**Tax Map Key:** 2-7-03

**OWNER/OPERATOR:**
- Firm Name: ALEXANDER & BALDWIN
- Contact Person: PAUL BANKS
- Address: 822 BISHOP ST, HONOLULU, HI 96813
- Phone: 525-6611

**LANDOWNER:**
- Firm Name: ALEXANDER & BALDWIN
- Contact Person: PAUL BANKS
- Address: 822 BISHOP ST, HONOLULU, HI 96813
- Phone: 525-6611

Date application received: 2-13-91
Date acknowledged receipt/request more info: 3-1-91
Date application accepted: 4-1-91
Suspense date (90 days): 
Date filing fee deposited: 

Application sent to following:

<table>
<thead>
<tr>
<th>Department/Send to</th>
<th>Date sent</th>
<th>Comments received</th>
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</thead>
<tbody>
<tr>
<td>Dept. of Health</td>
<td>4 March 91</td>
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<tr>
<td>Dept. of Hawn Home Lands</td>
<td>15 March 91</td>
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<tr>
<td>Dept/Bd of Water Supply</td>
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<tr>
<td>Historic Preserv. Prog.</td>
<td>4 March 91</td>
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<td>Koolauloa NB #28 (Oahu)</td>
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<td>Dept.Pub. Wrks (Hawaii)</td>
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<tr>
<td>Office of Hawaiian Affairs</td>
<td>4 March 91</td>
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Date agenda due: 
Date submittal due: 
Date submittal sent to applicant: 

Date application approved or disapproved: 
Date applicant notified of decision: 

**REMARKS:** Well location in a general area
In acknowledgement letter - ask for specific location can
They start drilling (see map)
Ms. Jill Takashiba
Aqua Engineers, Inc.
P.O. Box 368
Lawai, HI 96765

Dear Ms. Takashiba:

We are responding to your November 22, 2000 letter, requesting clarification as to whether additional pump testing would be required prior to approval of a pump installation permit for Well No. 5428-01.

Our review of the existing pump test data finds that the data are inadequate because drawdowns during pump testing cannot be determined. We have developed a new pump test protocol (attached) that must be followed. Please submit new pump test data collected in accordance with the attached protocol as a justification for a permanent pump permit. We are also enclosing the pump installation permit application for your convenience.

If you have any questions, please contact Glenn Bauer at 587-0263.

Sincerely,

LINNEL T. NISHIOKA
Deputy Director
November 22, 2000

Linnel T. Nishioka
Deputy Director
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96813
Attn: Lenore Nakama

Subject: Omao Well (State No. 5428-01)

Dear Ms. Nishioka:

This is a follow up to our telephone conversation last week regarding the Omao Well (State No. 5428-01) on Kauai. As you suggested in our conversation, I spoke with your hydrogeologist regarding the requirements for additional pump testing on the subject well. He indicated that the neighboring stream is not likely to be affected by well pumping and therefore, additional testing would probably not be required if we do not plan on installing a pump with a capacity greater than 1034 gpm. However, he was unable to give me a definite response as to whether additional pump testing would be required and suggested that I request a clarification in writing.

It is our understanding that results of a continuous 75-hour test are on file in your office, but there have been recent court decisions that may require us to redo this test, along with others. We are in the process of providing our client with estimated costs associated with putting the Omao well into service. Please let us know if costs for a continuous pump test or any other additional costs should be figured into the estimate.

Please feel free to call me at 1-800-430-7381 if you should have any questions. Thank you again for your assistance with this project.

Sincerely,

Jill Takashiba
Project Engineer

cc: File
MEMORANDUM:

FROM: Dean Y. Uchida, Administrator
Land Division

TO: Aquatic Resources, Forestry & Wildlife, State Parks, Historic Preservation, Water Commission, Natural Area Reserves System, Land Division Branches of: Planning and Technical Services, Engineering Branch, Kauai, Oahu, Hawaii, Maui District Land Office

SUBJECT: Review : Final Supplemental Environmental Impact Statement
Project : Kukuiula Bay Resort
Applicant: Kukuiula Development Company, Inc
Location : Koloa, Kauai, Hawaii
TMK's : 4th/ 2-6-03: Por. 1, 40 & 2-6-04 Por. 48 & 40

Please review the attached:

(X) FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

Attached is a copy of the applicant’s response to your comments on the proposed project.

Should you need to review the entire FSEIS, we have one complete document in room 220.

and submit your comments (if any) on division letterhead to this office within the time requested above. Should you need more time to review the subject matter, please contact Nick Vaccaro at 7-0438.

    If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

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

Signed: 
Date: 9-19-98
Mr. William Campbell  
822 Bishop Street  
Honolulu, HI 96813

Dear Mr. Campbell:

Thank you for your letter of December 1, 1997, informing us of the status of the Kukui‘ula Back-up Well development project (Well No. 5428-02).

From a December 12, 1997 telephone conversation with Lenore Nakama of my staff, we understand that a permanent pump has not yet been installed in first Kukui‘ula Well (Well No. 5428-01) and that you are aware that a pump installation permit application must be made and approved prior to any future pump installation work. We have attached the appropriate application form for your convenience.

Lastly, this letter is notice that we have accepted your well completion report for the drilling and testing of Well No. 5428-01 as complete. Thank you for your attention to this matter.

If you have any questions, please contact Lenore Nakama at 587-0218.

Sincerely,

RAE M. LOUI  
Deputy Director

LN:ss  
Attachment
Ms. Alice Kunishi & Mr. Harry Kunishi
2288 West Valley Lane
Westminster, MD 21158

Dear Ms. Kunishi & Mr. Kunishi:

This is in response to your recent letter regarding the Kukuiula Development Project.

It is our understanding that the administrative rules of the Department of Health's Wastewater Branch requires any property within 1,000 feet of a drinking water well to have an aerobic treatment unit instead of a septic tank. Your property, TMK 2-7-04:65, at Omao, Kauai, is not within 1,000 feet of any drinking water well, including the Kukuiula-A&B Well (Well No. 5428-01). Therefore, we do not believe there are any restrictions on building except for the routine permits required prior to constructing your new home.

Please call the Department of Health's Wastewater Branch at (808) 586-4294 for any questions related to the 1,000 foot radius from a drinking water well or the septic tank versus an aerobic treatment unit. Call Ed Sakoda at (808) 587-0225 if you have any other related questions.

Sincerely,

RAE M. LOUI
Deputy Director

ES:ko

c: John Lewin, Department of Health
Thomas Arizumi, DOH, Environmental Management Division
Dennis Tulang, DOH, Wastewater Branch
Meredith Ching, A&B Hawaii, Inc.
Thomas Shigemoto, A&B Hawaii, Inc.
Kauai Department of Water
To: E. Hirano
   E. Sakoda
   Y. Shiroma
   R. Hardy
   G. Bauer
   D. Higa
   L. Nakama
   S. Edmunds

PLEASE:
   See Me
   Call
   Review & Comment
   Take Action
   Investigate & Report
   Draft Reply
   Acknowledge Receipt
   Type Draft
   Type Final
   Xerox ___ copies

FOR YOUR:
   Approval
   Signature
   Information

Remarks:
quick reply may be nice

Caled w/ Tom S.: 4/25/94
well out of 1000' radius 5428-01
Dear Rae M. Loui,

This letter concerns the development by the A & B Kukui‘ula Development Co. of water wells in the Omao district of Kauai and its possible impact on the obtainment of permission to build a house. We are owners of a lot (house not yet built): Tax Map Key: 2-7-004-065, in Omao, Kauai zoned single-family residential.

We have been informed that if a drinking water well comes on line within 1,000' of our property, permission to build might be in jeopardy. How likely—or unlikely is it to be given permission to build on our lot, based on septic field (tank)/drinking water well proximity considerations (waterwell developed after establishment of building lots)? Is the permits process relative to this concern a gray area such that it would be more prudent to rush our building time schedule which
has been delayed thus far by pending sale of our present home in Maryland?
Your early reply would be most appreciated.

Sincerely,

Alice & Harry Kunishi
2288 West Valley Lane
Westminster, MD 21158
INSTRUCTIONS: Please print or type and submit completed report within 30 days of well completion to the Division of Water Resource Management, P.O. Box 373, Honolulu, Hawaii 96809. An as-built drawing of the well and chemical analysis, if available, should also be submitted. If necessary, phone 548-7543, Hydrology, Geology Section for Assistance.

A. STATE WELL NO. 5428-01
   WELL NAME KUKUIULA
   ISLAND KAUAI
B. LOCATION OMAO ROAD, KOLOA
   TAX MAP KEY 2-6-03 & 2-7-03
C. WELL OWNER Alexander and Baldwin
D. DRILLING OR PUMP INSTALLATION CONTRACTOR ROSCOE MOSS HAWAII, INC.
E. TYPE OF RIG 28L: Cable Tool
   DRILLER Thomas Lehel
F. DATE OF WELL COMPLETION: 01/29/93
   DATE OF PUMP INSTALLATION
G. GROUND ELEVATION (msl) 243.01 ft.
H. TOTAL DEPTH OF WELL BELOW GROUND 970 ft.
I. HOLE SIZE: 20 Inch dia. from 0 ft. to 665 ft. below ground
   14 Inch dia. from 665 ft. to 770 ft. below ground
   10 Inch dia. from 770 ft. to 970 ft. below ground
J. CASING INSTALLED: 1.4 In. I.D. x 312 In. wall solid section to 665 ft. below ground
   in. I.D. x 312 In. wall perforated section to ft. below ground
   Type of perforation N/A
K. ANNUAL:
   Grouted from 0 ft. to 665 ft. below ground
   Gravel packed from N/A ft. to N/A ft. below ground
L. PERMANENT PUMP INSTALLATION:
   Pump type, make, serial No.
   Motor type, H.P., voltage, r.p.m.
   Depth of pump intake setting ft. below ground
   Depth of bottom of slinie ft. below ground
   which elevation is ft.
   which elevation is ft.
M. PROPOSED USE Domestic
N. INITIAL WATER LEVEL 213 ft. below ground.
   Date and time of measurement 1/13/93 8:00 am
O. INITIAL CHLORIDE ppm.
   Date and time of sampling 1/15/93 1:30 pm
P. PUMPING TESTS: Reference point (R.P.) used Platowhich elevation is 250 ft.
   Start water level ft. below R. P.
   End water level ft. below R. P.
   Depth of well ft. below R. P.
   Elapsed Time (hours) Rate Drawdown (ft.) Cl- (ppm) Temp.
   0...0 to 1...10.23 2.738...to...
   6..6 to 7..72...1.034...2.70...to...
   2..2 to...
   4..4 to...
   See attached test pump data
Q. DRILLER'S LOG:

<table>
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<tr>
<th>Depth (ft.)</th>
<th>Rock Type</th>
<th>Description &amp; Remarks</th>
<th>Water Level</th>
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<tbody>
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<td>Hard Rock</td>
<td>23'</td>
<td>389 to 439</td>
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<tr>
<td>62 to 81</td>
<td>Mud</td>
<td>23'</td>
<td>439 to 485</td>
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<tr>
<td>81 to 88</td>
<td>Hard Rock</td>
<td>23'</td>
<td>485 to 490</td>
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<td>88 to 98</td>
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<td>23'</td>
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<td>Hard Rock</td>
<td>23'</td>
<td>497 to 516</td>
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<tr>
<td>100 to 115</td>
<td>Hard Rock</td>
<td>23'</td>
<td>516 to 539</td>
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<tr>
<td>115 to 180</td>
<td>Red Brown Clay</td>
<td>23'</td>
<td>539 to 588</td>
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<tr>
<td>180 to 184</td>
<td>Mild Rock</td>
<td>23'</td>
<td>588 to 970</td>
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<tr>
<td>184 to 360</td>
<td>Hard &amp; Mild Rock</td>
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<td>970 to 196</td>
</tr>
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</table>

R. REMARKS: 380 Red Brown Clay 196'

Submitted by (print) ROSCOE MOSS HAWAII, INC. Title FIELD SUPERINTENDENT

Signature Jan. 29, 1993 FOR OFFICIAL USE

FOR DRILLER'S USE

Job Name

Job No.
PUMPING TEST RECORD

for

A & B PROPERTIES

Well 1 (6428-01)

(Name)

16-91R

Project or Job No. Jan. 12 1993

Kauai

Island

Description of Well:

1. Elevation: ground surface 249.01 ft., top of casing ______ ft., rotary table ______ ft., referenced to benchmark.
2. Total depth of well 970 ft.; or -721 ft. elevation, msl
3. In. solid casing to 665 ft. depth, perforated to ______ ft. depth
4. Static water level on January 12 1993: 213 ft. below ground surface, top of casing: or ______ ft. elevation msl measured sounder method

Description of Pump:

5. Turbine type pump with ______ stage bowl assembly
6. Gasoline diesel, electric, power with ______ horsepower engine
7. Shaft speed: ______ rpm at ______ gpm flow
8. Depth of pump intake: 618 ft. below ground; or 250 ft. elev. msl
9. Depth of airline bottom: 610 ft. below ground; or 250 ft. elev. msl
10. Center of gage: ______ ft. elev., msl. Flow measured with ______ meter
11. Test conducted by Tom Lehler and Patrick Leslie

<table>
<thead>
<tr>
<th>Date &amp; Time</th>
<th>Sample No.</th>
<th>Pumping rate (gpm)</th>
<th>Airline Down well from ground (PSI)</th>
<th>Vault level chlorides (ppm)</th>
<th>Temp. (°F)</th>
<th>Cond. (mnhos 25°C)</th>
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<td>01/12/93 10:15 am</td>
<td>0</td>
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<td>212'3&quot; sounder used for static level</td>
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# PUMPING TEST RECORD

**for**

**A & B PROPERTIES**

**Well 1 (5429-01)**

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<tr>
<th>Date &amp; Time</th>
<th>Sample No.</th>
<th>Pumping rate (gpm)</th>
<th>Airline Drawdown (feet)</th>
<th>Drawdown (feet)</th>
<th>Chlorides (ppm)</th>
<th>Temp. (°F)</th>
<th>Cond. (mmhos 25°C)</th>
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1:30 pm: Shut down after Board of Health samples 2 minutes to recover to 140 psi. No electric sounding done.
TO State of Hawaii
Department of Land and Natural Resources
Division of Water and Land Development
1151 Punchbowl Street, Rm. 224
Honolulu, Hawaii 96813

WE ARE SENDING YOU 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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<td></td>
<td>Pumping test record</td>
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<tr>
<td>1</td>
<td></td>
<td></td>
<td>Well completion report</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
- As requested
- Returned for corrections
- Return ___ corrected prints
- For review and comment
- __

FOR BIDS DUE __________ 19 ___ PRINTS RETURNED AFTER LOAN TO US

REMARKS

COPY TO ________________________________

SIGNED: ______________
June 20, 1992

Dear Project Supervisor,

I am writing in reaction to the water-well project by your company, currently being drilled in Omao Valley. When drilling began in October of 1991, my neighbors and I initiated contact with your office to express our concerns over the amount of noise being created. We were assured that the nuisance would be short lived. Seven months later, we are still enduring the almost constant racket created by the drilling rig, and it is our understanding that a second well is also going to be drilled. This is a very distressing prospect!

At our request, the State Health dept. came out to check on the amount of drilling noise with sound meters. They found that the sound exceeded standard safety guidelines set by the state and your office was notified of their results and recommendations made. The drilling rig operates 6 days a week 10 hours a day. It should also be noted that in a previous E.I.S. study done for the Koloa Transfer Station, this valley was found to be "Echophonic", which is a defined term meaning that the valley acts as a natural amphitheater amplifying all valley sounds. This was one of the primary reasons why the Koloa Transfer Station was relocated out of this valley.

Through all of this we have remained good neighbors, patiently waiting for peace and quiet to return to our lives. However, at this time we do have a few requests that we would like your company to honor.

1. If indeed a second well must be drilled we would like an assurance that it's location be well away from the established residential area of Omao Valley! The current drilling site is located at the base of a hill, on the boundary of the last house in the neighborhood. Moving the second well site towards Koloa will have the effect of putting the hill between the houses and the drill, greatly minimizing the amount of noise. Moving the second well site in the direction of the Omao residences will only affect more people and create an impossible situation for those nearest the well. We ask for your assurance that if a second well must be dug, it's location be placed away from pre-established homes.

2. We ask that when the pumps are installed that they will be silent. We know that the silent pumps are available to your company and as a good neighbor, we would expect you to use them.

3. Since this valley is echophonic and extremely prone to sound pollution, we would hope that in the future A & B would be sensitive to our situation.

4. We suggest that the waterwells not be placed near the line of cesspools which extend along the bottom of our properties.

Please respond to these points by letter so that I may share your answers with the neighborhood. I will be speaking with you by phone this week. Thank you for your cooperation.

Richard G. Evans

Richard G. Evans


Thank you for your attention! RGE
Alexander & Baldwin
Application for a Well construction/Pump Installation Permit
Kukuiula-A & B Well, Koloa, Kauai

Applicant: Alexander & Baldwin
822 Bishop Street
Honolulu, HI 96813

Action Requested: Permission to construct, (gpm) pump in Kukuiula-A & B Well (Well A)
Proposed amount of use is 1.5 million gallon

Well location: The proposed well will be located at

Well Description:
- Ground elevation: 250 ft
- Casing diameter: 14-in
- Solid casing depth: 400 ft
- Screen casing depth: 450 ft
- Open hole: 50 ft
- Total depth: 500 ft
- Grouted annulus: 0 to 400 ft
- Proposed pump capacity: 1,050 gpm

Agency review: The application has been sent to the Kauai Department of Water, the State Historic Preservation Division, the Office of Hawaiian Affairs, and to the State Departments of Health and Hawaiian Home Lands for review. There have been no objections to the project.

Analysis: The well is expected to develop a fresh basal aquifer. No adverse impacts are expected.

Water Availability: The well is located in the Lihue Sector, Koloa System of Kauai. Sustainable yield for the Koloa System is estimated at 30 mgd. Ground water withdrawn from the system is about 16 mgd.

RECOMMENDATION:

That the Commission approve the issuance of a well construction/pump installation permit for Kukuiula-A & B Well, subject to the following conditions:
1. The Division of Water Resource Management (DWRM) shall be notified before work commences.

2. The proposed use 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 and pump water from a well shall not constitute a determination of correlative water rights. The permittee is notified and by this provision understands that the quantity of water taken from the well could be reduced by the Commission in the future. This permit is not a commitment that the pump capacity permitted here or even some lesser amount is guaranteed in the future.

3. The permit shall be for construction, testing, and installation of a 1,050 gpm capacity, or less, pump in the well, as determined by the pumping test results. The applicant shall submit to DWRM the test results and proposed permanent pump information, based on the test, for approval by the Chairperson. No permanent pump may be installed and no water used from the well without the Chairperson's approval.

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

5. The following shall be submitted to DWRM within 30 days after completion of the work:
   a. Well Completion Report.
   b. As-built sectional drawing of the well.

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

7. 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 24 months from the date of permit issuance.

Respectfully submitted,

KAZUO G. AKITA
Manager-Chief Engineer

Attach.

APPROVED FOR SUBMITTAL:

WILLIAM W. PATY, Chairperson
July 25, 1991

Mr. William W. Paty
Chairperson
Commission on Water Resource Management
State of Hawaii
P. O. Box 621
Honolulu, HI 96809

Dear Mr. Paty:

I understand that, in conjunction with the granting of well construction and pump installation permits for our backup well at Kukuiula (Koloa, Kauai), the Commission has requested that we submit a statement regarding our intended water usage from this well and the primary well for which permits were granted at the Commission's May meeting.

Our anticipated use of these two wells is not expected to exceed 1.5 MGD in total.

We hope this satisfies the Commission's concerns. Please call if there are any questions.

Sincerely,

R. K. Sasaki
Vice President

cc: Commission Members
M. J. Ching
WELL CONSTRUCTION/PUMP INSTALLATION PERMIT

for

Kukuiula-Alexander & Baldwin Well
Well No. 5428-01
Koloa, Kauai

TO: Alexander & Baldwin
822 Bishop Street
Honolulu, HI 96813

In accordance with the Department of Land and Natural Resources Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", your application to construct, test, and install a pump in Kukuiula-Alexander & Baldwin Well (Well No. 5428-01) for municipal-private use, is approved subject to the following conditions:

1. The Division of Water Resource Management (DWRM), P.O. Box 373, Honolulu, HI 96809, shall be notified, in writing, before any work covered by this permit commences.

2. The proposed well construction and pump installation 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 and pump water from a well shall not constitute a determination of correlative water rights. The permittee is notified and by this provision understands that the quantity of water taken from the well could be reduced by the Commission in the future. This permit is not a commitment that the pump capacity permitted here or even some lesser amount is guaranteed in the future.

3. The permit shall be for construction, testing, and installation of a 1,050 gallons per minute capacity, or less, pump in the well, as determined by the pumping test results. The applicant shall submit to DWRM the test results and proposed permanent pump information, based on the test, for approval by the Chairperson. No permanent pump may be installed and no water used from the well without the Chairperson's approval.
4. The applicant shall provide and maintain an approved meter or other appropriate device or means for measuring and reporting total water usage on a monthly basis.

5. The following shall be submitted to DWRM within 30 days after completion of the work:
   a. Well Completion Report.
   b. As-built sectional drawing of the well.

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

7. This 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 24 months from the date of permit issuance.

WILLIAM W. PATY, Chairperson
Commission on Water Resource Management

MAY 29 1991
Date of Issuance

cc:     USGS
        Department of Health
        Safe Drinking Water Branch
        Ground Water Protection Program
        Kauai Department of Water
Alexander & Baldwin
822 Bishop Street
Honolulu, HI 96813

Dear Applicant:

The Commission on Water Resource Management will be acting on your permit application(s) at its meeting on May 15, 1991, at 9:00 a.m., at the Wailuku Community Center, Wailuku, Maui.

The agenda and submittal(s) concerning your application(s) are enclosed for your information.

You or your representative are invited to attend the meeting.

Sincerely,

MANABU TAGOMORI
Deputy Director

ES:fc
Encl.
PROJECT AREA

ISLAND OF KAUA'I
April 2, 1991

Mr. Manabu Tagomori, Deputy Director
DLNR-Comm. on Water Resource Management
P. O. Box 621
Honolulu, HI  96809

Re:  Well Construction Permit Application: Kukuiula – Alexander and Baldwin, Well No. 5428-01, Koloa, Kauai, Hawaii, TMK: 2-7-03

We do not have any objections to the drilling of the proposed well; however, we are concerned with the close proximity of the Koloa Cemetery and the residential developments along Omao Road to the well if it will be used as a potable water source.

Raymond H. Sato
Manager and Chief Engineer

GF/RHS:rm
MEMORANDUM

TO: Manabu Tagomori, Deputy Director  
Commission on Water Resource Management

FROM: Don Hibbard, Administrator  
State Historic Preservation Division

TMK: 2-6-03 & 2-7-03 
Kukuiula, Koloa, Kauai

No archaeological sites are known to be present in the area planned for the pump. But a review of our files indicates that no archaeological inventory survey has taken place in this area, so we are uncertain if significant historic sites are present. Recent archaeological inventory surveys in the general area have found lava tubes (which contain habitation sites with burials), agricultural mounds, auwai, agricultural fields, and habitation platforms and walls.

Given this information, we recommend that an archaeological inventory survey be conducted to determine if significant historic sites are present. Alternatively, if the parcel has had its land surface extensively disturbed in the past, the applicant should submit a description of this disturbance.

If you have any questions please call Nancy McMahon at 587-006.
The Honorable William W. Paty, Chairperson
Commission on Water Resource Management
Department of Land and Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Paty:

SUBJECT: WELL CONSTRUCTION PERMIT APPLICATION
KUKUIULA-ALEXANDER AND BALDWIN WELL
STATE WELL NO. 5428-01
KOLOA, KAUAI

Thank you for the opportunity to review and comment on the subject document. We have examined the application and have the following comments to offer:

1. The application indicates that the subject well will be for domestic use. If the well is to serve 25 or more individuals at least 60 days per year or will have a minimum of 15 service connections, the applicant will be required to comply with the Department's Administrative Rules, Title 11, Chapter 20, "Potable Water Systems."

2. Section 11-20-29 of Chapter 20 requires that a new source of potable water serving a public water system be approved by the Director of Health prior to its use. Such an approval is based primarily upon the submission of a satisfactory engineering report which addresses the requirements set in Section 11-20-29.

3. The proposed well is situated above the Underground Injection Control (UIC) line. Land areas above the UIC line are considered to contain underground sources of drinking water. Thus, it is essential that the well be designed and constructed to prevent the possibility of groundwater contamination. For example, the well should have a concrete well pad and full grouting to prevent seepage or floodwaters from migrating down the well shaft.
The operation of the well should not be allowed to adversely affect the water quality of nearby drinking water wells. The map accompanying the application indicates that the proposed well will be located within 4,000 feet of the Department of Water's Koloa wells (state well nos. 5427-01 and -02) and the Department of Land and Natural Resources' Koloa "E" well (state well no. 5427-03).

If you should have any questions, please contact the Safe Drinking Water Branch at 543-8258.

Very truly yours,

[Signature]

JOHN C. LEWIN, M.D.
Director of Health

cc:  Paul Banks
     Alexander and Baldwin
     822 Bishop Street
     Honolulu, HI 96813
Mr. Raymond H. Sato  
Manager & Chief Engineer  
Department of Water  
County of Kauai  
P.O. Box 1706  
Lihue, Hawaii 96766-5706  

Dear Mr. Sato:

Well Construction and Pump Installation Permit Application

Transmitted for your review and comment is a copy of the following permit application:

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Please review the application pursuant to your area of concern and submit your comments to us, orally or in writing, by April 5, 1991.

Should you have any questions, please contact our Regulation Branch at 548-7541.

Sincerely,

MANABU TAGOMORI
Deputy Director

NF:bm
Enc.
March 4, 1991

The Honorable William W. Paty
State of Hawaii
Department of Land and Natural Resources
Commission on Water Resource Management
P.O. Box 621
Honolulu, Hawaii 96809

Attn: Mr. Manabu Tagomori, Deputy

Dear Mr. Paty:

We have received the following water permit applications. Thank you for the opportunity to review these applications:

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The only concern we raise on the above-referenced applications is a concern regarding Makakilo Golf Course Standby #1904-04. We simply caution that water on the Ewa Plain is limited and that current applications must be balanced against future development plans for the entire area.

We have no other comments or concerns at this time.

Sincerely,

Moses K. Keale, Sr
Chair, Board of Trustees
MEMORANDUM

TO: Mr. Don Hibbard, Director
Historic Preservation Program

FROM: Manabu Tagomori, Deputy Director
Commission on Water Resource Management

SUBJECT: Well Construction and Pump Installation Permit Application(s)

Transmitted for your review and comment is a copy of the following permit application(s):

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Please review the application(s) pursuant to your area of concern and submit your comments to us, orally or in writing, by March 22, 1991.

Should you have any questions, please contact our Regulation Branch at 548-7541.

NF:bm
Enc.
Honorable Hoaliku L. Drake  
Director  
Department of Hawaiian Home Lands  
State of Hawaii  
P.O. Box 1879  
Honolulu, Hawaii 96805

Dear Mrs. Drake:

Well Construction and Pump Installation Permit Application(s)

Transmitted for your review and comment is a copy of the following permit application(s):

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Please review the application(s) pursuant to your area of concern and submit your comments to us, orally or in writing, by March 22, 1991.
Should you have any questions, please contact Manabu Tagomori, Deputy Director at 548-7533.

Very truly yours,

WILLIAM W. PATY

Enc.
Honorable John C. Lewin, M.D.
Director
Department of Health
State of Hawaii
1250 Punchbowl Street
Honolulu, Hawaii 96813

Attn: Mr. Thomas Arizumi, Drinking Water Branch

Dear Dr. Lewin:

Well Construction and Pump Installation Permit Application(s)

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Should you have any questions, please contact Manabu Tagomori, Deputy Director at 548-7533.

Very truly yours,

[Signature]

WILLIAM W. PATY

Enc.
Mr. Thomas K. Kaulukukui, Sr.
Chairman & Trustee-At-Large
Office of Hawaiian Affairs
1600 Kapiolani Blvd., Suite 1500
Honolulu, Hawaii 96814

Attn: Ms. Linda Delaney, Land & Natural Resources Division

Dear Mr. Kaulukukui:

Well Construction and Pump Installation Permit Application(s)

Transmitted for your review and comment is a copy of the following permit application(s):

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Please review the application(s) pursuant to your area of concern and submit your comments to us, orally or in writing, by March 22, 1991.
Should you have any questions, please contact Manabu Tagomori, Deputy Director at 548-7533.

Very truly yours,

WILLIAM W. PATY

Enc.
Mr. Paul Banks  
Alexander & Baldwin  
822 Bishop St.  
Honolulu, Hawaii 96813

Dear Mr. Banks:

We have received your application and filing fee for a permit to construct and install a pump in a well (Well No. 5428-01) at Kukuiula, Kauai (TMK 2-7-03). We are reviewing the application for completeness.

On the maps you have sent us, it is difficult to ascertain where your well will be constructed. Please send us an additional property tax map and USGS quadrangle map showing, as accurately as possible, the location of the proposed well.

Should you have questions, please call the Regulation Branch of the Division of Water Resource Management at 548-7541.

Sincerely,

[Signature]

MANABU TAGOMORI  
Deputy Director

NF: mh
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<td>PUMP INSTALLATION PERMIT.</td>
<td>53045300</td>
<td>$25.00</td>
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<tr>
<td>DATE</td>
<td>DESCRIPTION</td>
<td>ACCOUNT NO.</td>
<td>NET AMOUNT</td>
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<tr>
<td>2/12/91</td>
<td>WELL CONSTRUCTION PERMIT FOR KUKUIULA.</td>
<td>53045300</td>
<td>$25.00</td>
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</table>
R. M. Towill Corporation

To: DEPT. OF LAND AND NATURAL RESOURCES
Division of Water and Land Development
1151 Punchbowl Street, Room 227
Honolulu, Hawaii

Attention: Mr. Manabu Tagomori

DATE: February 13, 1991

Project: Kukuiula Development
Phase I

Ref: 1-10064-36

We are sending you under separate cover:

- Drawing Prints
- Drawing Originals
- Specifications
- Shop Drawings
- Cost Estimate
- Change/Field Order
- Submittal
- Other

<table>
<thead>
<tr>
<th>No. of Copies</th>
<th>Description</th>
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<tbody>
<tr>
<td>1 SET</td>
<td>Application for well construction and pump installation permit (10 sheets)</td>
</tr>
<tr>
<td>1</td>
<td>Filing fee check ($25.00) for well construction permit</td>
</tr>
<tr>
<td>1</td>
<td>Filing fee check ($25.00) for pump installation permit</td>
</tr>
<tr>
<td>1</td>
<td>Groundwater supply report</td>
</tr>
</tbody>
</table>

These are transmitted for:

- Approval
- Review and comment
- Your use
- Signature and return to this office
- As requested
- Appropriate action

Remarks:

________________________________________________________________________
________________________________________________________________________

Copies to:

Receipt requested acknowledged

By Warren H. Umemoto

Sr. Jones H. Yamamoto, PE.
February 11, 1991

Mr. Manabu Tagomori
Deputy Director
Department of Land and Natural Resources
Division of Water and Land Development
State of Hawaii
1151 Punchbowl Street, Room 227
Honolulu, Hawaii 96813

Dear Mr. Tagomori:

SUBJECT: Applications for Well Construction and Pump Installation Permits
Kukuiula Development, Koloa, Kauai, Hawaii
TMK: 2-6-03 & 2-7-03

Kukuiula development is a master planned housing project proposed by A&B Properties, Inc. The Kukuiula project is situated on the southern coast of the Island of Kauai and consist of approximately 1,000 acres. The project area is bounded on the east by Poipu Road, to the south by Lawai Road, Lawai Valley to the west and steeper uplands to the north.

The development will require a well to be drilled in Koloa at Omao Road near Loko Reservoir. A vertical turbine pump must be installed at the well to withdraw 1.5 million gallons per day to serve the planned community.

We are submitting applications and related descriptive items to obtain a well construction and pump installation permit. Included with the enclosed are:

1. Completed well construction and pump installation permit applications.
2. Separate $25.00 filing fees for each application.
3. USGS project location map showing Kukuiula Development Phases 1 & 2 and proposed well and pump location (1" = 2,000').
4. Property tax map showing area from Kukuiula development to proposed well and pump location (1" = 600').
5. Property tax map showing Kukuiula Development Phases 1 & 2 (1" = 600')
6. Property tax map showing proposed well and pump location (1" = 400').
Mr. Manabu Tagomori

February 11, 1991

Please do not hesitate to call me should you have any questions or comments.

Very truly yours,

James H. Yamamoto, P.E.
Project Manager

DYU:wpc3

Enclosures

cc: A&B Properties, Inc.
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
Division of Water Resource Management

APPLICATION FOR

WELL CONSTRUCTION PERMIT
PUMP INSTALLATION PERMIT

INSTRUCTIONS: Please print or type and send completed application with attachments to the Division of Water and Land Development, P.O. Box 375, Honolulu, Hawaii 96808. Application must be accompanied by a non-refundable filing fee of $15.00 payable to the Department of Land and Natural Resources. (Filing fee waived for government agencies.) If necessary, phone 548-7563, Hydrology/Geology Section for assistance.

1. WELL LOCATION

Island _Kauai_ Tax Map Key _2-6-03 & 2-7-03_
Address __________________________
(Attach a USGS map (scale 1"=2000') and property tax map showing well location referenced to established property boundaries.)

2. WELL OWNER

Firm Name Alexander & Baldwin
Contact Person Paul Banks
Address 822 Bishop St.
Honolulu, Hawaii 96813
Phone 525-6611

LANDOWNER

Firm Name Alexander & Baldwin
Contact Person Paul Banks
Address 822 Bishop St.
Honolulu, Hawaii 96813
Phone 525-6611

3. PROPOSED CONTRACTOR FOR: _Well Drilling_ _Pump Installation_

Name Roscoe Moss or Water Resources International Inc.
Address __________________________
Contractor's License No. __________________________

4. PROPOSED WORK

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

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

5. PROPOSED USE

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

6. PROPOSED AMOUNT OF WITHDRAWAL _1,5 million gallons per day_

7. PROPOSED PUMP INFORMATION

Pump Type: ☐ Vertical Turbine ☐ Submersible ☐ Centrifugal
☐ Gas ☐ Electric: 120
Rated Pump Capacity 1050 gallons per minute (gpm)

......

Well Owner (print) McBryde Sugar Company, Limited
Signature __________________________
Date __2-6-97__

For Official Use Only:
Field Checked By __________________________
Date __________________________
Latitude __________________________
Longitude __________________________
Hydrologic Unit __K-B __
State Well No. 5428-01
Quad Map __K-B__
Briefly describe the proposed work:

The well will be drilled in Koloa at Omao Road near Loko Reservoir. The ground surface is in the Koloa volcanic soils, but the well will be drilled to penetrate into the Napali formation several hundred feet below the surface.

PROPOSED SECTION OF WELL

Elevation at top of casing ft., msll.

Cement Grout 400 ft.

Hole Dia. 21 in.

Total Depth 550 ft.

Rock Packing 500 ft.

Ground Elev. 250 ft., msll

Solid Casing:
Material steel
Length 600 ft.
Diameter 14 in.
Wall thickness 5/16 in.

Casing: / /Perforated /%Screen
Material steel
Length 50 ft.
Diameter 14 in.
Wall thickness 5/16 in.
Openings 10.8 sq. in./L.F.

Open Hole:
Length 50
Diameter 10 in.

*Approximate elevation at time of filing application. Final elevation (msl) by a surveyor licensed by the State must be submitted at start of construction.
APPLICATION FOR

V PUMP INSTALLATION PERMIT

INSTRUCTIONS: Please print or type and send completed application with attachments to the Division of Water and Land Development, P.O. Box 213, Honolulu, Hawaii 96808. Application must be accompanied by a non-refundable filing fee of $110.00 payable to the Department of Land and Natural Resources. (Filing fee waived for government agencies.) If necessary, phone 586-7963, Hydrology/Geology Section for assistance.

1. WELL LOCATION

Island Kauai Tax Map Key 2-6-03 & 2-7-03
Address

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

2. WELL OWNER

Firm Name Alexander & Baldwin
Contact Person Paul Banks
Address 822 Bishop St.
Honolulu, Hawaii 96813
Phone 525-5611

LANDOWNER

Firm Name Alexander & Baldwin
Contact Person Paul Banks
Address 822 Bishop St.
Honolulu, Hawaii 96813
Phone 525-5611

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

Name Bosco Moss or Water Resources International Inc.
Address

Contractor's License No.

4. PROPOSED WORK

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

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

5. PROPOSED USE

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

6. PROPOSED AMOUNT OF WITHDRAWAL 1.5 million gallons per day

7. PROPOSED PUMP INFORMATION

Pump Type: □ Vertical Turbine □ Submersible □ Centrifugal
Motor: □ Diesel □ Gas □ Electric: 120 HP
Rated Pump Capacity 1050 gallons per minute (gpm)

For Official Use Only:
Field Checked By __________________________ Latitude ____________ Hydrologic Unit ____________
Date __________________________ Longitude ____________ State Well No. 5428-01
Well Owner (print) McBryde Sugar Company, Limited
Date ____________
Landowner (print) __________________________
Signature __________________________
Date ____________

Well Owner (print) A&B Properties
Signature __________________________
Date ____________

Landowner (print) McBryde Sugar Company, Limited
Signature __________________________
Date ____________

Well Owner (print) A&B Properties
Signature __________________________
Date ____________

Landowner (print) McBryde Sugar Company, Limited
Signature __________________________
Date ____________

Well Owner (print) A&B Properties
Signature __________________________
Date ____________

Landowner (print) McBryde Sugar Company, Limited
Signature __________________________
Date ____________

Map K-B

For Official Use Only:
Field Checked By __________________________ Latitude ____________ Hydrologic Unit ____________
Date __________________________ Longitude ____________ State Well No. 5428-01
Well Owner (print) A&B Properties
Signature __________________________
Date ____________
Landowner (print) McBryde Sugar Company, Limited
Signature __________________________
Date ____________

Well Owner (print) A&B Properties
Signature __________________________
Date ____________

Landowner (print) McBryde Sugar Company, Limited
Signature __________________________
Date ____________

Well Owner (print) A&B Properties
Signature __________________________
Date ____________

Landowner (print) McBryde Sugar Company, Limited
Signature __________________________
Date ____________

Map K-B
Briefly describe the proposed work:

Installation of a vertical turbine pump in the proposed well to withdraw 1.5 million gallons per day for domestic use.

PROPOSED SECTION OF WELL

Elevation at top of casing  ____ ft., msl.

Cement Grout 400 ft.

Hole Dia. 21 in.

Total Depth 550 ft.

Rock Packing 500 ft.

Ground Elev. 250 ft., msl*

Solid Casing:
- Material: steel
- Length: 400 ft.
- Diameter: 14 in.
- Wall thickness: 5/16 in.

Casing: / Perforated / Screen
- Material: steel
- Length: 50 ft.
- Diameter: 14 in.
- Wall thickness: 5/16 in.
- Openings: 10.8 sq. in./L.F.

Open Hole:
- Length: 50
- Diameter: 10 in.

*Approximate elevation at time of filing application. Final elevation (msl) by a surveyor licensed by the State must be submitted at start of construction.
Kukuiula—Alexander&Baldwin Back-Up

Well No. 5428-02