

JOHN WAIHEE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF WATER AND LAND DEVELOPMENT
P. O. BOX 373
HONOLULU, HAWAII 96809

WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

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CONSERVATION AND
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PROGRAM
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

NOV 25 1992

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OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

Mr. Brian J.J. Choy
Director
Office of Environmental
Quality Control
220 South King Street, Fourth Floor
Honolulu, Hawaii 96813

Dear Mr. Choy:

Job No. 48-HW-H, Puukapu Shallow
Exploratory Well, Waimea, Hawaii

Pursuant to Section 11 of the Environmental Impact Statement Rules, transmitted for processing are four (4) copies of the Final Environmental Assessment and Notice of Determination (Negative Declaration) for the subject project. Also attached is a completed OEQC Bulletin Publication Form.

If there are any questions on this matter, please have your staff contact Mr. Edward Lau of the Project Development Branch at Extension 70227.

Sincerely,

A handwritten signature in black ink, appearing to read "Manabu Tagomori".

MANABU TAGOMORI
Manager-Chief Engineer

SL:lc

Enc.

DOCUMENT CAPTURED AS RECEIVED

1992-12-08-HI-FEA-Puukapu Shallow Exploratory Well

DEC - 8 1992

ENVIRONMENTAL ASSESSMENT

AND

NEGATIVE DECLARATION

Job No. 48-HW-H

Puukapu Shallow Exploratory Well

Waimea, Hawaii

State of Hawaii
Department of Land and Natural Resources
Division of Water and Land Development
November 1992

NOTICE OF DETERMINATION: Negative Declaration

FOR: Job No. 48-HW-H
Puukapu Shallow Exploratory Well
Waimea, Hawaii

BY: Division of Water and Land Development
Department of Land and Natural Resources

The proposed action will have no significant effect on the environment and therefore does not require the preparation of an Environmental Impact Statement. This Notice of Determination and Environmental Assessment are being filed as a Negative Declaration.

ENVIRONMENTAL ASSESSMENT
For
Job No. 48-HW-H
Puukapu Shallow Exploratory Well
Waimea, Hawaii

I. PROPOSING AGENCY

Division of Water and Land Development
Department of Land and Natural Resources

II. AGENCIES CONSULTED

County of Hawaii
Planning Department
Department of Water Supply

State of Hawaii
Division of Forestry and Wildlife, DLNR
Historic Preservation Division, DLNR
Department of Agriculture
Commission on Water Resource Management, DLNR
Department of Hawaiian Home Lands
Office of Hawaiian Affairs

III. PROJECT DESCRIPTION

This project involves the drilling, casing and testing of a 12-inch diameter well approximately 360 feet deep in the Kohala Mountains. The proposed well site is located on a parcel of State land, TMK: 6-3-01:04, within the Kohala Forest Reserve (see Figure 1) and approximately 80 feet east of the existing Puukapu Deep Well. It is intended as a backup to the Waimea Irrigation System, which is under the jurisdiction of the State Department of Agriculture and provides agricultural water to the Puukapu Homestead lots. The forest reserve itself is under the Forestry and Wildlife Division, State Department of Land and Natural Resources.

Funds for this project are available through Act 299, SLH 1990, Item D-24.

This exploratory well drilling is part of the "Statewide Exploratory Well Drilling Program" to locate new groundwater sources and to gather hydro-geologic data on the quality and quantity of groundwater resources. Preliminary studies have indicated the presence of two aquifers in the Puukapu area. This project will

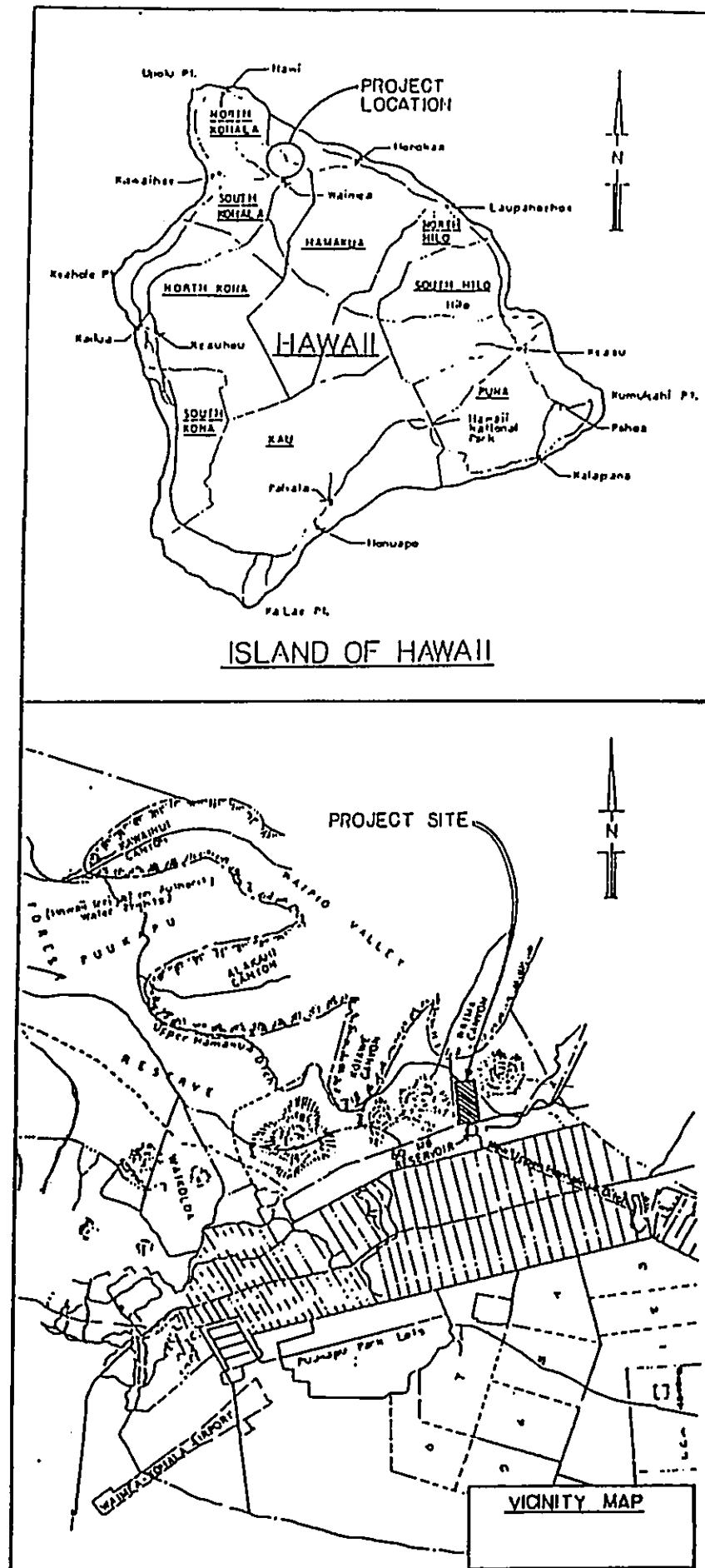


FIGURE 1

explore the shallower of the two aquifers. Should this well exploration prove successful, it will be developed for use as a standby irrigation source during periods of drought. A separate environmental assessment for the development of the well will be prepared at that time.

In the event that the exploration is not successful, the well will either be used as a monitor well or will be sealed and the area restored, as much as practical, to its natural condition.

The technical characteristics of the proposed exploratory well are as follows:

Ground Elevation:	~ 3020 feet
Casing Diameter:	12 inches
Depth of Solid Casing:	190 feet
Depth of Full Flo Shutter Screen:	170 feet
Depth to Open Hole:	240 feet (as required)
Total Maximum Depth:	600 feet
Duration of Pump Test:	150 hours
Proposed Pump Test Range:	100-500 gpm
Length of Project:	180 days
Estimated Construction Cost:	\$370,000

IV. ASSESSMENT PROCESS

An informal hydrogeologic study of the Puukapu area was conducted to identify the potential areas for groundwater exploration. This was followed by engineering analysis to determine the improvement requirements and costs of various alternate well sites and associated environmental and social impacts. A field reconnaissance of the project site was conducted to investigate the physical environment and confirm the earlier conclusions made from researching reference materials.

V. DESCRIPTION OF THE ENVIRONMENT

Access to the project site is via the Mamalahoa Highway and a two-lane rural road which is paved in most places. There are a few rural homes and agricultural properties adjoining the road, which continues to the Waimea Reservoir and further on to the exploratory well site. The road to the reservoir is located on Hawaiian Home Lands property and is sited within an easement. A portion of the remaining road to the pump site is located in the Forest Reserve.

The site is located on a 5 percent slope at the foot of Kaala, a 900-foot-high hill on the eastern flank of the Kohala Mountains. Underlying the ground cover is a late stage, volcanic akaltic basalt base, originating from the Kohala Volcano. The

northeastern side has been deeply dissected and eroded. This erosion led to the formation of the rich agricultural soils in the area.

The project site receives over 100 inches of rain per year, and experiences an average annual temperature range of 64 to 74 F. Due to the high amounts of rainfall, the danger of erosion is high on areas which are not covered by vegetation or drained improperly. Small and deep natural drainage ways and gullies cut through the project area. There are various culverts and pipes used to provide drainage for the existing road. Soil on the property is classified as Maile silt loam. This soil consists of well-drained silt loams which formed in volcanic ash. The subsoil consists of dark yellowish brown and very dark brown silty clay loam. The deeper subsoil then becomes a fine, sand sized aggregate.

VI. FLORA AND FAUNA

The area of the well site is currently overgrown by various grasses, forbs and sedges, as well as Kahili Ginger (Hedygium gardnerianum). Most of the species are introduced and exotic.

The native species found in the area are primarily in the forest of 'ohi'a (Metrosideros polymorpha) and olapa (Cheirodendron trigynum) surrounding the site. There are a few banyan trees planted at the side of the road. The native species are found in scattered patches. Among those found are hapu'u, hapu'u'i, lau-kahi, manono, pilo, pakahakaha and 'ama'u. (See Appendix A for a complete list of both introduced and native species found on the site and in the area.)

Although several rare and endangered botanical species are known to occur in the nearby Pu'u O 'Umi Natural Area Reserve, no species designated as rare or endangered were found during the botanical survey of January 19, 1990, either on the well site or along the proposed road/power corridor.

The area is known to have feral pigs and various exotic species of avifauna. Drilling the exploratory well is not expected to have an adverse impact on fauna due to the small area of the site and the temporary nature of the work.

VII. ARCHAEOLOGY

The proposed well site is located within the boundaries of the proposed Puukapu Deep Well development project, which has been found to be an unlikely site for archaeological or historical features. However, as with the Deep Well project, if any unanticipated sites or artifacts are discovered during construction, the work will be halted and the State Historic Preservation Office will be contacted.

VIII. SOCIO-ECONOMIC ENVIRONMENT

Due to the concentration of agricultural activities in the Waimea area, support for that industry is important. On State-owned and homestead lands, an increasing number of residents would like to place their lands in production. The proposed County redesignation of Waimea Homesteads from Low Density Urban to Intensive Agriculture supports this trend. With the expansion of agriculture, there is a need for a dependable supply of irrigation water.

The proposed well site is considered ceded land under Section 5(b) of the Admission Act of March 18, 1959. The Division of Land Management, DLNR, will handle any compensation to the ceded lands trust due to this project.

IX. PROBABLE IMPACTS AND MITIGATIVE MEASURES

The anticipated impacts of the project will be from the construction work involved in the site preparation, drilling, and pump testing of the exploratory well.

A working pad, approximately 5,000 square feet in area, will be needed for the drilling equipment and materials storage. Dust, erosion and sediment control provisions will be included in the contract specifications.

Drilling equipment to be used include a drilling rig, drilling bits and rods, generators and pipe racks. The contractor is allowed 180 days to complete the work.

Noise generated during the drilling work may at times be in excess of 95 decibels. Therefore, drilling work will be restricted to eight hours during the day and as specified in Chapter 44B, Public Health Regulations. No work will be permitted during weekends and holidays without prior consent of the department.

After the well has been drilled to the specified depth and cased, a temporary pump will be installed in the well to test the groundwater aquifer for yield and water quality. The pump test will be conducted over a continuous 150 hour period. An unabated pump motor can generate a droning sound that may at times be heard during the night. Therefore, the contractor will be required to use mufflers or other sound attenuating devices as needed to meet applicable noise restriction regulations of the Department of Health.

X. ALTERNATIVES

There are two possible alternatives to the proposed project: taking no action or finding an alternative well site.

The "no action" alternative would preclude the investigation of groundwater sources and the possibility of developing a new water source for the area. The State Water Plan anticipates significant future demands for irrigation water; accordingly, taking no action would not be consistent with the Plan.

Alternate sites were considered for the proposed well. However, based on the hydrogeologic and topographic conditions, cost, risk and environmental and social impacts considered in the engineering analysis, the selected site was considered to be superior to the alternative sites. The well will be within 100 feet of the Puukapu Deep Well, which is also being developed as a standby source, and is in close proximity to the Waimea Irrigation System.

XI. DETERMINATION

In accordance with Chapter 343, Hawaii Revised Statutes, it is determined that the proposed project would not have any significant adverse effects on the environment. Any potential negative impacts resulting from the drilling and testing of the Puukapu Shallow Exploratory Well should be insignificant and temporary. Based on the findings of this Environmental Assessment, an Environmental Impact Statement is not required and this Environmental Assessment is hereby being filed as a Negative Declaration.

XII. REFERENCES

Char and Associates, Botanical Assessment Survey: Waimea Well Site and Road/Powerline Corridor, South Kohala District, Honolulu, Hawaii, 1989.

County of Hawaii, Hawaii County General Plan: Draft, Hilo, Hawaii, 1989.

Department of Geography, University of Hawaii, Atlas of Hawaii, University of Hawaii Press, Honolulu Hawaii, 1983.

Division of Water and Land Development, Puukapu Deep Well Pump Development, Department of Land and Natural Resources, State of Hawaii, 1992.

Heezen, B. and Tharp, M., Volcanism in Hawaii, U.S. Navy, Office of Naval Research, South Nyack, New York, 1977.

Commission on Water Resource Management, State Water Projects Plan Review Draft, Department of Land and Natural Resources, State of Hawaii, February 1992.

APPENDIX A

CHAR & ASSOCIATES

Botanical/Environmental Consultants

4471 Puu Panini Ave.
Honolulu, Hawaii 96816
(808) 734-7828BOTANICAL ASSESSMENT SURVEY
WAIMEA WELL SITE AND ROAD/POWERLINE CORRIDOR
SOUTH KOHALA DISTRICT, HAWAII'I

Field studies to provide a general description of the vegetation found on the proposed well site and along the road/powerline corridor were conducted on 19 January 1990. In addition, a search was made for any threatened and endangered species, protected by Federal and/or State laws, on the study area.

A walk-through survey method was used. Species were identified in the field. Plants which could not be positively determined were collected for later identification in the herbarium and for comparison with the taxonomic literature. Species names used in this report follow Wagner *et al.* (in press) for the flowering plants and Lamoureux (1984) for the ferns and fern allies. Common English and/or Hawaiian names used are in accordance with St. John (1973) and Porter (1972).

DESCRIPTION OF THE VEGETATION

The area proposed for the well site has been cleared sometime in the past and is now largely overgrown by Kahili ginger (Hedychium gardnerianum) and various grasses, sedges, and forbs. This overgrown parcel is roughly 200 ft. in length and width. The portion abutting the access road, about one-third of the parcel, is gravel-lined and supports only scattered patches of vegetation. The well site proposed to be developed on this parcel will cover an area approximately 100 ft. in length and width.

Kahili ginger and kikuyu grass (Pennisetum clandestinum) are the most abundant species. Locally common in fair-sized patches are Glenwood grass (Sacciolepis indica), white clover (Trifolium repens), Wainaku grass (Panicum repens), Hilo grass (Paspalum conjugatum), California grass (Brachiaria mutica), Pycnaeus polystachyus, a native species, and three members of the rush family -- Juncus planifolius, Juncus tenuis, and bog rush or Japanese mat rush (Juncus effusus). Other species occasionally encountered include broomsedge (Andropogon virginicus), foxtail grass (Setaria gracilis), cuphea or puakamoli (Cuphea carthagenensis), St. Johnswort (Hypericum mutilum), paspalum grass (Paspalum scrobiculatum), carpet grass (Axonopus fissifolius), pluchea (Pluchea symphytifolia), and yellow trefoil (Lotus subbiflorus). One sapling each of ironwood (Casuarina sp.) and Nepal alder (Alnus nepalensis), about 1.5 ft. tall, are found on the site.

Native species are found primarily in the 'ohi'a (Metrosideros polymorpha)/olapa (Cheirodendron trigynum) forest surrounding the 200 ft. square parcel. A few, however, have invaded the parcel and occur as scattered individuals; tree and shrub species are less than 3 ft. tall. These are 'ohi'a, hapu'u (Cibotium glaucum), wawae-'iole (Lycopodium cernuum), 'ohelo (Vaccinium calycinum), uluhe (Dicranopteris linearis), pala'a (Sphenomeris chinensis), and Hawaiian sedge (Carex alligata).

An existing gravel-lined road borders the proposed well site and continues on to a nearby gaging station. The powerline which will provide electricity to the well site pumps will follow along the east side of this road. Like the well site, the band of vegetation bordering the road has been previously disturbed and is dominated by introduced or alien species.

Kahili ginger is abundant in places, while grasses and forbs are the common components in other areas. Among the most frequently

observed species are Vasey grass (Paspalum urvillei), Kikuyu grass, honohono (Commelina diffusa), palm grass (Setaria palmifolia), Glenwood grass, and Pycreus. Rocky areas alongside the road support such plants as cranesbill (Geranium homeanum), creeping buttercup (Ranunculus repens), drymaria (Drymaria cordata var. pacifica), blue-eyed grass (Sisyrinchium micranthum), water smartweed (Polygonum punctatum), milkwort (Polygala paniculata), pluchea, etc. A few large banyan trees (Ficus sp.) are found planted alongside the road.

Native species occur as scattered individuals or small clumps of plants in the strip of vegetation bordering the road. Among the natives found here are 'ohi'a, olapa, hapu'u, hapu'u 'i'i (Cibotium chamissoi), shuttlecock fern or lau-kahi (Dryopteris wallichiana), manono (Hedyotis hillebrandii), Clermontia parviflora, pilo (Coprosma pubens), pakahakaha (Pleopeltis thunbergiana), and 'ama'u (Sadleria cyatheoides).

THREATENED AND ENDANGERED SPECIES

Several rare or candidate endangered plant species are known from the nearby Pu'u O 'Umi Natural Area Reserve. These include the lo'ulu palm (Pritchardia lanigera), two native mints (Phyllostegia floribunda, P. vestita), ho'awa (Pittosporum hawaiiensis), manena (Pelea hawaiiensis), kahi-'ai-kamo'o-wahie (Lobelia hypoleuca), pilokea (Platydesma remyi), and Doodia lyoni. None of these species were encountered during this survey.

No officially listed threatened and endangered plants nor any proposed or candidate for such status (U. S. Fish and Wildlife Service 1985; Herbst 1987) occur on the proposed well site and the road/powerline corridor.

DISCUSSION AND RECOMMENDATIONS

The area proposed for the well site and the road/powerline corridor have been previously disturbed and are dominated by introduced or alien species, principally Kahili ginger and various grass species. Native plants occur as scattered individuals or small clumps of plants; none are considered threatened or endangered species.

The proposed project is not expected to have a significant impact on the botanical resources as it is composed largely of introduced species. Although some vegetation will be removed during construction, given the wet conditions of the area, regrowth and recovery of the plant cover is expected to be fairly rapid. While the native plants found along the road/powerline corridor occur throughout the surrounding forest, if possible, poles should be sited to avoid clumps of native trees and tree ferns along the powerline corridor.

REFERENCES

- Herbst, D. 1987. Status of endangered Hawaiian plants. Hawaiian Botanical Society Newsletter 26(2): 44-45.
- Lamoureux, C. H. 1984. Checklist of the Hawaiian Pteridophytes. Manuscript.
- Porter, J. R. 1972. Hawaiian names for vascular plants. Coll. of Tropical Agriculture, Univ. of Hawaii, Manoa, Dept. Paper No. 1.
- St. John, H. 1973. List and summary of the flowering plants in the Hawaiian Islands. Pacific Tropical Botanical Gardens Mem. No. 1, Lawai, Kauai.

U. S. Fish and Wildlife Service. 1985. Endangered and threatened wildlife and plants; Review of plant taxa for listing as Endangered and Threatened Species; Notice of review. Federal Register 50(188): 39526-39527 plus 57-page table of species.

Wagner, W. L., D. Herbst, and S. H. Sohmer. In press. Manual of the flowering plants of Hawai'i. Univ. of Hawaii Press and B. P. Bishop Museum, Honolulu.

APPENDIX B

Comments and Responses

to the

Draft Environmental Assessment

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WAIHEE
Governor



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YUKIO KITAGAWA
Chairperson, Board of Agriculture

ILIMA A. PIIANAIA
Deputy to the Chairperson

FAX: 973-9613

92 JUN 9 12:16
State of Hawaii
DEPARTMENT OF AGRICULTURE
1428 So. King Street
Honolulu, Hawaii 96814-2512

Mailing Address:
P. O. Box 22159
Honolulu, Hawaii 96823-2159

REF:WL-LC

DEPT. OF LAND
& NATURAL RESOURCES
STATE OF HAWAII
June 5, 1992

TO: Mr. William W. Paty, Chairperson
Board of Land and Natural Resources

SUBJECT: Environmental Assessment for Job No. 48-HW-H
Puukapu Shallow Exploratory Well, Waimea, Hawaii

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JUN 10 10:33

We have reviewed the Environmental Assessment for the drilling of the subject well and have no comments.

Should this exploratory well be successful, we would like to be allowed input toward the well development project and, further, to incorporate this well into our Waimea Irrigation System.

Yukio Kitagawa
YUKIO KITAGAWA
Chairperson, Board of Agriculture

c: Paul Matsuo, Ag Res. Mgt. Div.



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GOVERNOR OF HAWAII

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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIV. OF WATER & LAND DEVELOPMENT
STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

July 7, 1992

WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

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LOG NO: 5506
DOC NO: 0232x

MEMORANDUM

TO: Manabu Tagomori, Manager-Chief Engineer
Division of Water and Land Development

FROM: Don Hibbard, Administrator
State Historic Preservation Division

SUBJECT: Chapter 6E Compliance (HRS)--Puukapu Shallow
Exploratory Well, Waimea (Job No. 48-HW-H)
Puukapu, South Kohala, Hawaii
TMK: 3-6-3-01:004

HISTORIC PRESERVATION PROGRAM CONCERNS:

Carol Kawachi, our staff archaeologist, field checked the project location on June 29, 1992, and identified no significant historic sites in the property. Hence, the subject project will have "no effect" on historic sites.

KS:amk

Q/keny

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June 22, 1992

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DIV. OF WATER &
LAND DEVELOPMENT

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'92 JUN 24 P 1:52

FORESTRY & WILDLIFE
STATE OF HAWAII

MEMORANDUM:

TO: Michael G. Buck, Administrator

ATTN: Wayne Ching, Resource Management Forester *WCh*

FROM: Charles K. Wakida, Hawaii District Manager *CKW*

SUBJECT: Environmental Assessment for Job No. 48-HW-H,
Puukapu Shallow Exploratory Well, Waimea, Hawaii

Reference the subject Environmental Assessment which you forwarded for review, we have no objection to the proposed exploratory well. The following are our comments.

1. According to the Conservation District map, the site is with the Conservation District, "P" Subzone. Although the proposed well site is within the boundaries of the proposed Puukapu Deep Well development project and approximately 80 feet from the existing Puukapu Deep Well, is a CDUA planned to be filed or is it necessary?
2. It is stated that "The proposed well site is located on an unencumbered parcel of State land, TMK: 6-3-01:04, within the Kohala Forest Reserve" The earlier TMK shows the parcel as Hawaiian Home Land under EO 1660 to the Hawaii Irrigation Authority, and the new TMK shows it as State land. To our knowledge, the parcel is/was within Forest Reserve, and the wording in EO 1660 indicated that it is. We believe clarification is needed.

We will appreciate being informed on the above matter.

ENDORSEMENT 6/25/92

I concur with District Manager Wakida's comments. Please keep us informed on this project.



MICHAEL G. BUCK, Administrator

cc: Hawaii District

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HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF WATER AND LAND DEVELOPMENT

P. O. BOX 373
HONOLULU, HAWAII 96809

JUL 22 1992

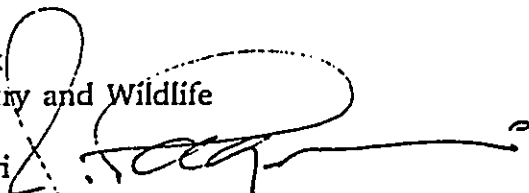
WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

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JOHN P. KEPPELER, II
DONA L. HANAIE

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TO: Mr. Michael Buck
Division of Forestry and Wildlife

FROM: Manabu Tagomori 

SUBJECT: Environmental Assessment for Job No. 48-HW-H, Puukapu Shallow
Exploratory Well, Waimea, Hawaii

Thank you for your comments dated June 22, 1992 on the Environmental Assessment for the subject project. Regarding your concerns, we offer the following:

1. The proposed well site is within the Conservation District, but the Office of Conservation and Environmental Affairs has determined that since the project is consistent with the purpose of Executive Order 1660, Conservation District rules do not apply, and, therefore, no CDUA is needed.
2. The parcel of State land, TMK: 6-3-01:04 is within the Kohala Forest Reserve. The Waimea Irrigation System, of which this proposed well will be a part, is under the jurisdiction of the Department of Agriculture. We have enclosed a revised page from the Environmental Assessment which clarifies this. The changes made are indicated by an underline.

If you have any further questions regarding this matter, please have your staff contact Mr. Edward Lau of the Project Development Branch at extension 70227.

SL:lc

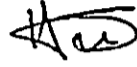
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State of Hawaii
Department of Land and Natural Resources
DIVISION OF AQUATIC RESOURCES
92 JUN 25 AIO: 45
June 23, 1992

DIV. OF WATER &
LAND DEVELOPMENT
TO: M. K. Mori, Manager and Chief Engineer
Division of Water and Land Development

FROM: Henry M. Sakuda, Administrator 
Division of Aquatic Resources

SUBJECT: Comments on Environmental Assessment for Job No. 48-HW-H
Puukapu Shallow Exploratory Well, Waimea, Hawaii

The project will involve drilling testing of a shallow (360 ft. deep) exploratory well near the existing deep well at Puukapu at an elevation of 3,020 ft. Although the documentation provided refers only to test pumping and drilling, it is our understanding that the well is intended to supply irrigation water if the tests are successful.

We have some concerns about the potential for dewatering of tributaries in the middle and upper reaches of the Wailauna Stream by this well. This year, these areas were found to sustain significant populations of the goby, *Lentipes concolor*, which are dependent upon perennial pools fed by spring water for survival. It is further suspect that the area has additional significance as a distinct type of stream ecosystem. Even if these areas are nothing more than nearly dry streambeds sustained by spring flows, their unique habitats could be supporting a genetic reservoir for subpopulations selected for adaptation to extended drought conditions. This could translate into a substantial long term survival advantage at the species level, or conversely, an increased potential for extinction if these habitats are lost.

The well in question is located about 4 miles from the stream at an elevation of 3,020 ft. The 3,000 ft. elevation recorded for *Lentipes* in the stream was approximately 800 ft. higher than for any previous report, and the fish were distributed down to 1,800 ft., where the bed became entirely dry. Although the distance between the stream and well would seem to preclude any impact on the stream by pumping, an informal inquiry of the USGS yielded an opinion that some potential or dewatering of the stream might exist because the well would access perched water. Given the newly discovered biological significance of the stream, and the need for sustaining the spring-fed pools during dry periods, the potential or dewatering of the stream by the well is important to us and therefore needs to be evaluated.

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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF WATER AND LAND DEVELOPMENT

P. O. BOX 373
HONOLULU, HAWAII 96809

JUL 29 1992

WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

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STATE PARKS
WATER AND LAND DEVELOPMENT

TO: Mr. Henry M. Sakuda, Administrator
Division of Aquatic Resources

FROM: Manabu Tagomori

SUBJECT: Environmental Assessment for Job No. 48-HW-H, Puukapu Shallow
Exploratory Well, Waimea, Hawaii

Thank you for your comments, dated June 23, 1992, regarding the Environmental Assessment for the subject project. In response to your concerns, we discussed the potential effects of the well on Waikoloa Stream with Mr. Glenn Bauer, a geologist with the Commission on Water Resource Management. After studying a topographic map of the area, it was Mr. Bauer's opinion that there is no likelihood of the stream being affected by pumping of the shallow well. He noted that a chain of cones formed to the east of Kohakohau Stream (Puu Iki, Puu Ohu, Puu Owaowaka and Hokuula) indicates the presence of underground volcanic dikes. A series of dikes formed these cones and would probably separate any water east of the dike from water west of these dikes. Accordingly, this would mean that the aquifer under Kohakohau Stream and aquifer to be tapped by the proposed well are mutually exclusive.

For this reason, we believe the stream is not in any danger from the pumping of the proposed well.

If there are any further questions or concerns, please have your staff contact Mr. Edward Lau of the Project Development Branch at Extension 70227.

SL:lc

MEMORANDUM FOR THE RECORD

We are willing to monitor the stream flow before and after drilling, if needed.

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Planning Department

County of Hawaii • 25 Aupuni Street, Room 109 • Hilo, Hawaii 96720 • (808) 961-8288

Lorraine R. Inouye
Mayor

Norman K. Hayashi
Director

Tad Nagasako
Deputy Director

DIV. OF WATER &
LAND DEVELOPMENT

July 9, 1992

Mr. Manabu Tagomori
Manager-Chief Engineer
Department of Land and Natural Resources
Division of Water and Land Development
P.O. Box 373
Honolulu, HI 96809

Dear Mr. Tagomori:

Special Management Area (SMA) Inquiry
Proposed Puukapu Exploratory Water Well
TMK: 6-3-01: 4; Puukapu, South Kohala, Hawaii

We have received and reviewed a Special Management Area (SMA) inquiry and an Environmental Assessment/Negative Declaration for the proposed shallow exploratory water well drilling and testing in the Puukapu area of the Kohala Mountains.

The project site is outside the Special Management Area; and therefore, it is not subject to SMA permit requirements. Should you have any questions, please contact Rick Warshauer or Alice Kawaha at this office.

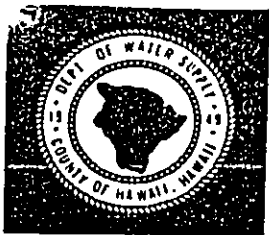
Sincerely,

NORMAN K. HAYASHI
Planning Director

FRW:jl
5765D

cc: SMA Section

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June 12, 1992

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII
25 AUPUNI STREET • HILO, HAWAII 96720
TELEPHONE (808) 969-1421 • FAX (808) 969-6996

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DIV. OF WATER &
LAND DEVELOPMENT

Mr. Manabu Tagomori, Manager-Chief Engineer
State of Hawaii
Department of Land and Natural Resources
Division of Water and Land Development
P.O. Box 373
Honolulu, HI 96809

ENVIRONMENTAL ASSESSMENT FOR JOB NO. 48-HW-H
PUUKAPU SHALLOW EXPLORATORY WELL, WAIMEA, HAWAII

Thank you for allowing us to review the subject matter.

The Department does not have any comments on the Environmental Assessment and Negative Declaration and supports your project.


H. William Sewake
Manager

DL

... *Water brings progress...*

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NATIVE HAWAIIAN ADVISORY COUNCIL

A NONPROFIT CORPORATION

1088 Bishop Street, Suite 1204, Honolulu, Hawaii 96813

Telephone (808) 523-1445

Facsimile (808) 599-4380

1992 September 18

State of Hawaii Department of Land and Natural Resources
Division of Water and Land Development

RE: COMMENTS ON ENVIRONMENTAL ASSESSMENT FOR JOB NO. 88-HW-1
PUUKAPU SHALLOW EXPLORATORY WELL
WAIMEA, HAWAII

DIVISION OF WATER & LAND DEVELOPMENT

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II. AGENCIES TO BE CONSULTED

The State of Hawaii Commission on Water Resource Management (COWRM) should be added to the list of consulting agencies. Because COWRM has discretionary permitting authority over the proposed well development and broader responsibilities for water resource planning and management, it would be helpful to initiate formal contact during the environmental assessment stage in order to get an early start on any problems that might develop.

Because the proposed water source is located on State land, the Office of Hawaiian Affairs (OHA) and the Hawaiian Homes Commission (HHC) must also be consulted.

V. ASSESSMENT PROCESS

It would be helpful to the public to include more detailed references for the "hydrogeologic study of the Puukapu area" that was conducted, as well as more detailed description of the "engineering analysis."

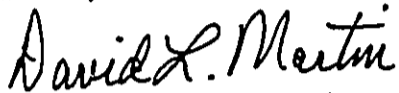
NHAC is increasingly disturbed with the DOWALD/COWRM process of acting on well construction and pump installation permits before the environmental assessment (EA) process has been completed, and with DOWALD's process of advertising for bids and awarding construction contracts prior to the completion of the EA process and COWRM permitting. In this case, bids have already been solicited for the proposed project, and the well construction permit application was already acted on by COWRM. This seems to be putting the cart before the horse. COWRM should have the benefit of a completed environmental assessment prior to its decisionmaking, and the public should have its due process rights protected by keeping the project approval process free from premature permitting actions and funding and contract obligations.

The assessment process should also include analysis of the proposed project's relationship with the Hawaii Water Plan. Since the well would be sited on state land, the potential demand for and use of

the water by OHA and/or HHC must be addressed, as well as compensation to the ceded lands trust for alienation of the water resource. Furthermore, specific planned and proposed development projects which might use water from the proposed source development should be identified.

Allocation of source water from the Waimea Irrigation System (WIS) distribution network is also a major concern. How will WIS system operations be modified to prioritize use by Hawaiian Home Lands?

Mahalo,



David L. Martin, Vice-President

pc: County of Hawaii Department of Water Supply
County of Hawaii Planning Department
State of Hawaii Commission on Water Resource Management
Water Commissioners
Office of Environmental Quality Control
Native Hawaiian Legal Corp.
Hawaiian Home Lands Action Network

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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF WATER AND LAND DEVELOPMENT
P. O. BOX 373
HONOLULU, HAWAII 96809

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WILLIAM W. PATY, CHAIRPERSON
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Mr. David L. Martin
c/o Native Hawaiian Advisory Council
1088 Bishop Street, Suite 1204
Honolulu, Hawaii 96813

Dear Mr. Martin:

Draft Environmental Assessment for
Puukapu Shallow Exploratory Well, Waimea, Hawaii

Thank you for your comments regarding the subject project.

When necessary to meet our schedules, we have been processing both permit and environmental assessment simultaneously since the approval of a well permit does not supersede the environmental review process, or vice versa.

Both the Puukapu Deep Well, which is being developed, and this Shallow Well are intended to be used as standby sources only. They will be pumped only as needed during drought conditions, and will be connected to the Waimea Irrigation System (WIS) which is not a potable source.

The WIS is operated by the Department of Agriculture, which also maintains the Upper Hamakua Ditch system and its appurtenant structures.

Sincerely,

A handwritten signature in black ink, appearing to read "Manabu Tagomori".

MANABU TAGOMORI
Manager-Chief Engineer

SL:lc