

1990-01-23-HA-FEA

OEQC FORM FOR PUBLICATION OF EIS DOCUMENTS IN THE OEQC BULLETIN

Project title: North Kona (Kalaoa) Exploratory Well, Well No. 4358-01,
Kalaoa, North Kona, Hawaii

District: North Kona

Island: Hawaii

Acreage: 5,000 sq. ft.

Tax map key numbers: 7-3-04:17

FILE COPY

TO BE FILLED OUT BY THE AGENCY ONLY:

Type of action:

Agency
 Applicant

Please check all that apply. This document is a:

<input type="checkbox"/> Chapter 205A document	<input type="checkbox"/> NEPA document	<input type="checkbox"/> Chapter 343 document
<input type="checkbox"/> EIS Preparation Notice	<input type="checkbox"/> FONSI	<input checked="" type="checkbox"/> Negative Declaration
<input type="checkbox"/> Draft EIS	<input type="checkbox"/> Notice of Preparation (NOP)	<input type="checkbox"/> EIS Preparation Notice
<input type="checkbox"/> Final EIS	<input type="checkbox"/> Draft EIS	<input type="checkbox"/> Draft EIS
	<input type="checkbox"/> Final EIS	<input type="checkbox"/> Final EIS
		<input type="checkbox"/> Acceptance Notice

OEQC must receive 4 copies of the environmental assessment, 60 of the draft EIS, and 25 of the final EIS. Proposing agencies or applicants should deliver an appropriate number of draft and final EISs to the accepting authority before submitting copies to OEQC.

Accepting authority's address: Department of Land and Natural Resources
Division of Water and Land Development
1151 Punchbowl Street, Room 227
Honolulu, Hawaii 96813

Contact: K. Gordon Akita Phone: 548-7496

Proposing agency or applicant's address: Same as above

Contact: _____ Phone: _____

Consultant's address: Same as above

Contact: _____ Phone: _____

Summary of the proposed action or project to be published in the bulletin. Please use complete sentences and write plainly and clearly. The description should be brief, but sufficiently detailed so that the full impact of the action can be determined.

This project involves the drilling, casing and testing of a well 14 inches in diameter at the site of the existing Hawaii County Department of Water Supply's 0.3 million gallon Kalaoa reservoir. It is about five miles mauka of Keahole Airport and 800 feet mauka of Mamalaho Highway.

This project is part of the "Statewide Exploratory Well Drilling Program." The program's goal is to locate and to gather hydro-geological data on the quality and quantity of new groundwater resources statewide.

If the well proves successful, it will be turned over to the Hawaii County Department of Water Supply as a water source for their North Kona Water System. If not, the well will be sealed and the area restored, as much as practical, to its natural condition.

The well site is already cleared and graded. A working pad, approximately 5,000 square feet, will be used for the drilling equipment and material storage. The existing road will be improved to provide access to the site.

The ground elevation of the well is 1,800 feet. The well will be approximately 1900 feet deep with 1790 feet of casing. The estimated cost of this project is \$1,000,000. It is anticipated to take one year to complete.

Please check all that apply. Characteristics that made this action subject to the EIS law:

- | | |
|---------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Use of state or county lands or funds | <input type="checkbox"/> Amendment to a county general plan |
| <input type="checkbox"/> Use of conservation district lands | <input type="checkbox"/> Reclassification of conservation lands |
| <input type="checkbox"/> Use of shoreline setback area | <input type="checkbox"/> Construction or modification of helicopter facilities |
| <input type="checkbox"/> Use of historic site or district | <input type="checkbox"/> Other |
| <input type="checkbox"/> Use of lands in the Waikiki Special District | |

Estimated project cost:

<u>1,000,000</u>	Federal funds
_____	State funds
_____	County funds
_____	Private funds
<u>1,000,000</u>	TOTAL

Document preparation cost:

_____	Environmental assessment
_____	Draft EIS
_____	Final EIS
_____	Supplemental final EIS
_____	TOTAL

ENVIRONMENTAL ASSESSMENT
AND
NEGATIVE DECLARATION

Job No. 8-HW-C
North Kona(Kalaoa) Exploratory Well
Well No. 4358-01
Kalaoa, North Kona, Hawaii

State of Hawaii
Department of Land and Natural Resources
Division of Water and Land Development
January 1990

NOTICE OF DETERMINATION: Negative Declaration

FOR: Job No. 8-HW-C

**North Kona (Kalaoa) Exploratory Well (Well No. 4358-01)
Kalaoa, North Kona, 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. 8-HW-C
North Kona (Kalaoa) Exploratory Well
Well No. 4358-01
Kalaoa, North Kona, Hawaii

I. Proposing Agency:

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

II. Parties Consulted:

Hawaii County Department of Water Supply
Hawaii County Planning Department
Historic Preservation Program, DLNR
Division of Forestry, DLNR

III. Project Description:

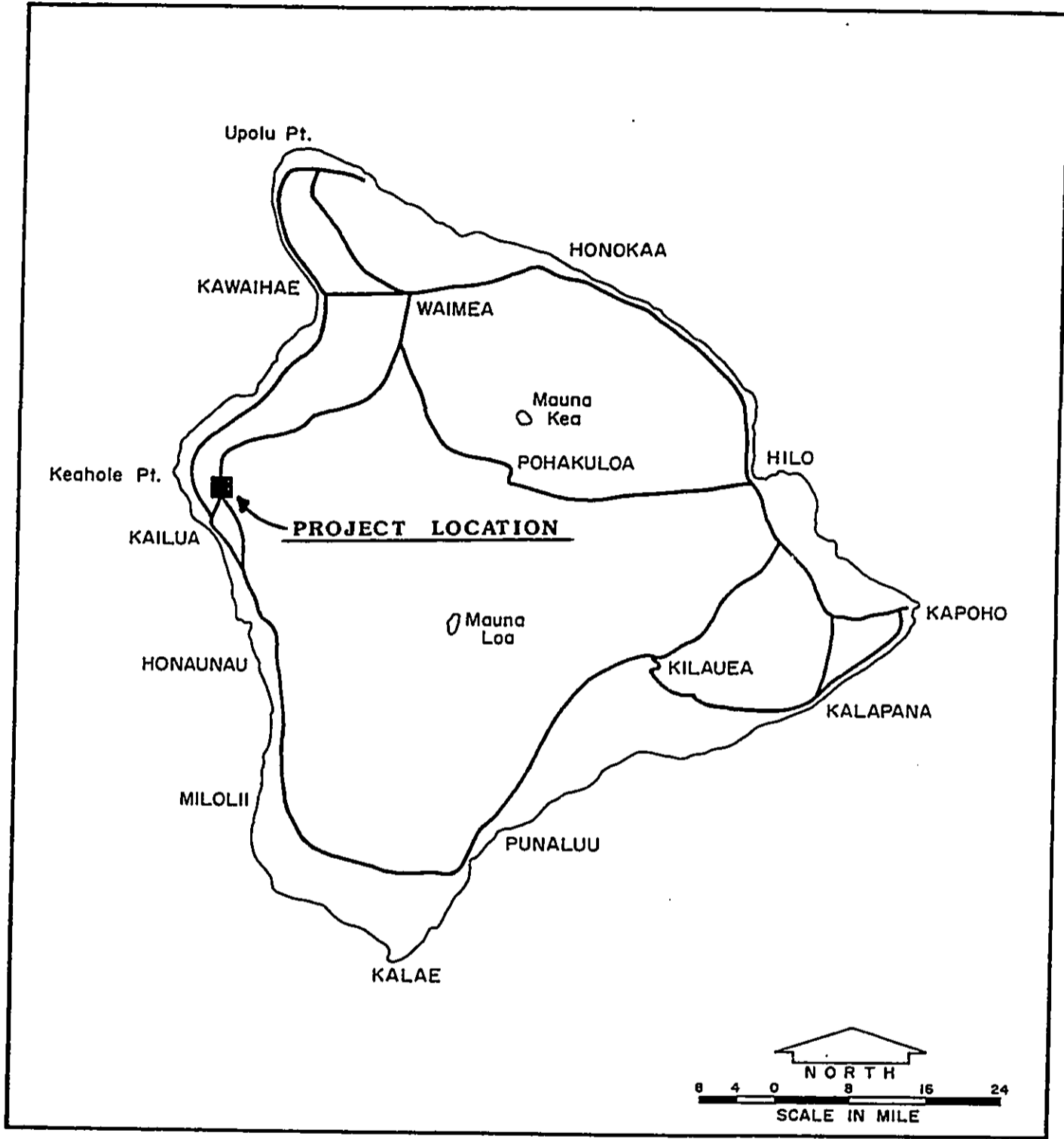
This project involves the drilling, casing and testing a 14-inch diameter well approximately 1900 feet deep on the western slope of Mt. Hualalai in Kalaoa, North Kona, Hawaii. The proposed well site is located on the existing Hawaii County Department of Water Supply's 0.3 million gallon Kalaoa reservoir site, TMK:7-03-04:17. See Figures 1 and 2.

Funds for this project is available through Act 216, SLH 1987, Item A-25, Drilling North Kona Exploratory Well, Hawaii.

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. Should this well exploration prove successful, it will be turned over to the Hawaii County Department of Water Supply as a water source for the North Kona Water System. 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 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:



ISLAND OF HAWAII

FIGURE 1.

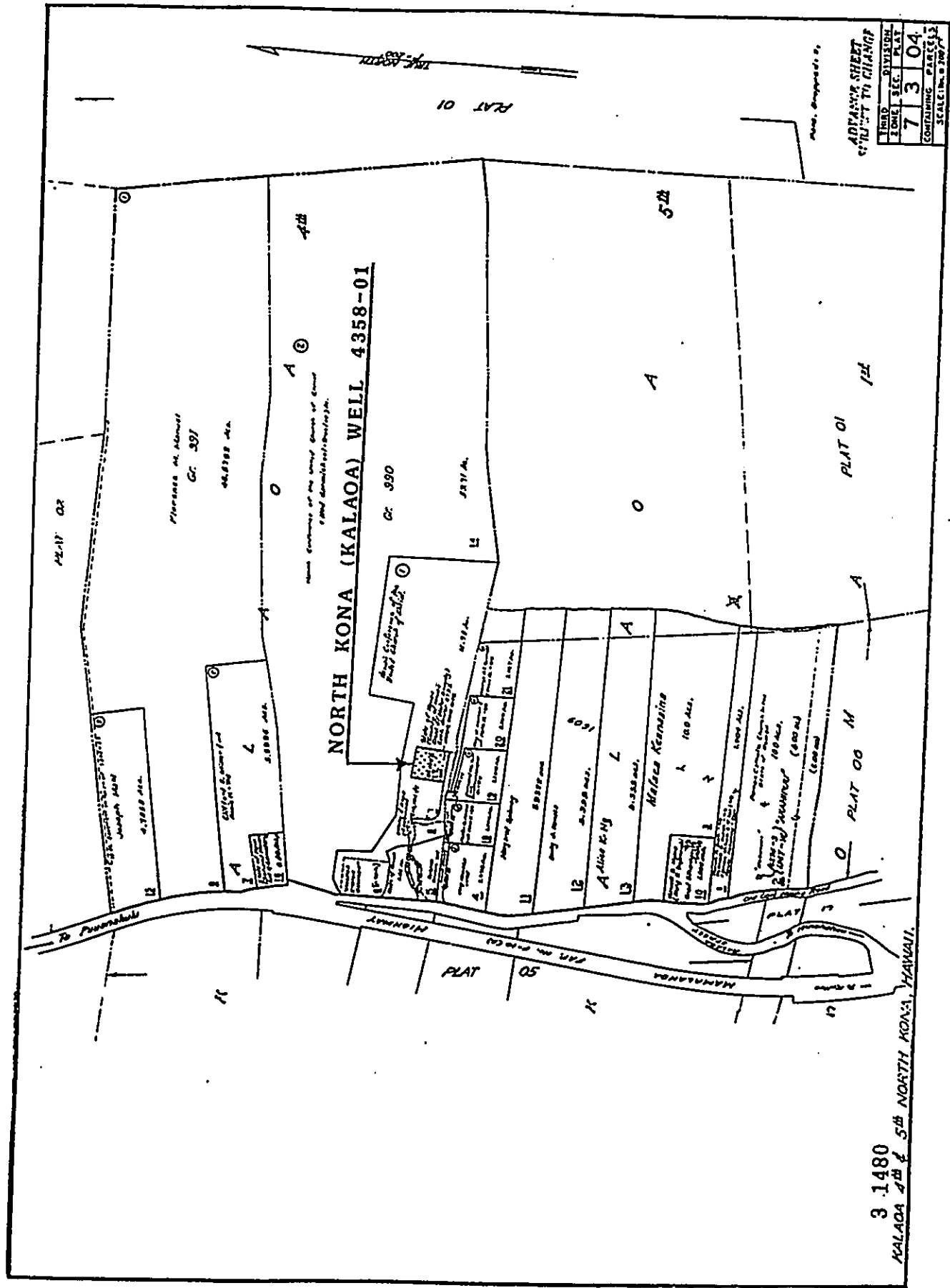


FIGURE 2.

Ground Elevation: \pm 1800 feet
Casing Diameter: 14 inches
Depth of Solid Casing: 1790 feet
Depth of Full Flo Shutter Screen: 1850 feet (-50 feet MSL)
Depth of Open Hole: 1900 feet (as required)
Total Maximum Depth: 1900 feet
Duration of Pump Test: 72-150 hours
Proposed Pump Test Range: 300-700 gpm
Length of Project: 360 days
Estimated Construction Cost: \$1,000,000

IV. Assessment Process:

A hydro-geologic study of the North Kona 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. The selection of the final site was coordinated with the Hawaii County Department of Water Supply. 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:

The project site is located in the North Kona District on the west side of the Island of Hawaii. This district is the fastest growing district on the island. A growth spurred primarily by an expanding visitor industry. The resident population of the district increased by 49.0 percent from 13,748 to 20,500 between 1980 to 1987.

The proposed well site is located within the graded site of the existing Hawaii County Department of Water Supply's 0.3 million gallon Kalaoa Reservoir.

The well site lies on the western slopes of Hualalai Volcano. The rocks of Hualalai consists of prehistoric and historic basaltic lava flows, intrusive rocks, and pyroclastic materials. Cinder cones are scattered in the summit area and along three rift zones extending northwest, northeast, and southeast from the summit. Ash beds ranging from a few inches to a few feet thick mantle part of the mountain. Many unexposed dikes probably cut the lava flows along the rift zones.

The State Land Use designation of the project site is agricultural (A) and does not require a Conservation District Use permit. The area is of a mixed rural and agricultural character, the majority of which is agricultural.

There are no endangered or threatened species that would be directly affected by this water project.

It is unlikely that any archaeological or historical features exist within the graded and developed reservoir site.

VI. Probable Impacts and Mitigative Measures:

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

The dust impact of the project will be minimal, as the site is already cleared and graded. A working pad, approximately 5,000 square feet in area, will be needed for the drilling equipment and materials storage. The existing road will be improved to provide access to the site. 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. Drilling work will be restricted to eight (8) hours during the day and as specified in Chapter 44B Public Health Regulations. No work will be permitted during the weekend and holidays without the prior consent of the Department. The Contractor will be required to comply with any applicable noise regulations of the Department of Health. The contractor is allowed 360 days to complete the work.

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 72 to 150 hour period. The pump motor will generate a droning sound and the noise may, at times, be heard during the night. 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.

Short-term adverse effects resulting from the Contractor's activities will be minimized through field inspection and conformance to applicable laws and regulations.

VII. Alternatives:

There are two possible alternatives to the proposed project: a "no action" alternative and an alternative well site.

The "no action" alternative would preclude the investigation of groundwater sources and the possibility of adding a new water source for the area. This alternative would not meet the objectives of the project.

Alternative sites were considered for the proposed well. However, based on hydro-geologic and topographic conditions, cost, risks and environmental and social impacts, the selected site was considered to be superior to the alternative sites.

VIII. Determination:

Adverse impacts resulting from the drilling and testing of the exploratory well at North Kona, Hawaii, are insignificant and temporary. Based on the findings of this environmental assessment, an Environmental Impact Statement is not required and is hereby being filed as a Negative Declaration.

REFERENCES

1. State of Hawaii, Department of Business and Economic Development, The State of Hawaii Data Book 1988.
2. Sterns, H.T. and G.A. MacDonald, Geology and Ground-Water Resources of the Island of Hawaii, Bulletin 9, Hawaii Division of Hydrography, 1946.