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GOVERNOR OF HAWAII



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

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STATE PARKS
WATER AND LAND DEVELOPMENT

May 10, 1990

Dr. Marvin T. Miura, Director
Office of Environmental
Quality Control
465 South King Street
Kekuanaoa Building, Room 104
Honolulu, Hawaii 96813

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

90 MAY 11 PM 2:19

RECEIVED

Dear Dr. Miura:

Wahikuli Exploratory Well (Well No. 5439-01)
Lahaina, Maui

Pursuant to Section 11 of the Environmental Impact Statement Rules, transmitted for processing are four (4) copies of the 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. Gordon Akita of the Planning Branch at Extension 8-7496.

Sincerely,

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

MANABU TAGOMORI
Manager-Chief Engineer

AM:lc

Attach.

1990-05-23-MATFA

FILE COPY

ENVIRONMENTAL ASSESSMENT
AND
NEGATIVE DECLARATION

Job No. 17-MW-M

★ Wahikuli Exploratory Well

Well No. 5439-01★

Lahaina, Maui

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

NOTICE OF DETERMINATION: Negative Declaration

**FOR: Job No. 17-MW-M
Wahikuli Exploratory Well (Well No. 5439-01)
Lahaina, Maui**

**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. 17-MW-M
Wahikuli Exploratory Well
Well No. 5439-01
Lahaina, Maui

I. Proposing Agency

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

II. Parties Consulted

Maui County Planning Department
Maui County Department of Water Supply
State Housing Finance and Development Corporation
State Division of Forestry, DLNR
State Historic Preservation Program, DLNR

III. Project Description

This project involves the drilling, casing and testing of a 16-inch diameter well approximately 1100 feet deep on the slopes of West Maui Mountains, in the district of Lahaina, island of Maui. The proposed well site is located on TMK 4-5-21:02 that is owned by the State of Hawaii, and is under the jurisdiction of the Department of Land and Natural Resources. The site is at an elevation of approximately 1050 feet and is about one mile north of Lahainaluna High School and two miles inland from the coast. See Figures 1 and 2.

Funds for this project are available under Act 214, SLH 1988, Item S-90-340-0 and Act 316, SLH 1989, Item D-21.

This exploratory well drilling is part of the "Statewide Exploratory Well Drilling Program" to locate new groundwater resources and to gather geo-hydrologic data on the quality and quantity of groundwater resources. Should this well exploration prove successful, it will be turned over to the State's Housing Finance Development Corporation as a domestic water source for their proposed project in Lahaina. A separate environmental assessment for the development of the well will be prepared at that time.

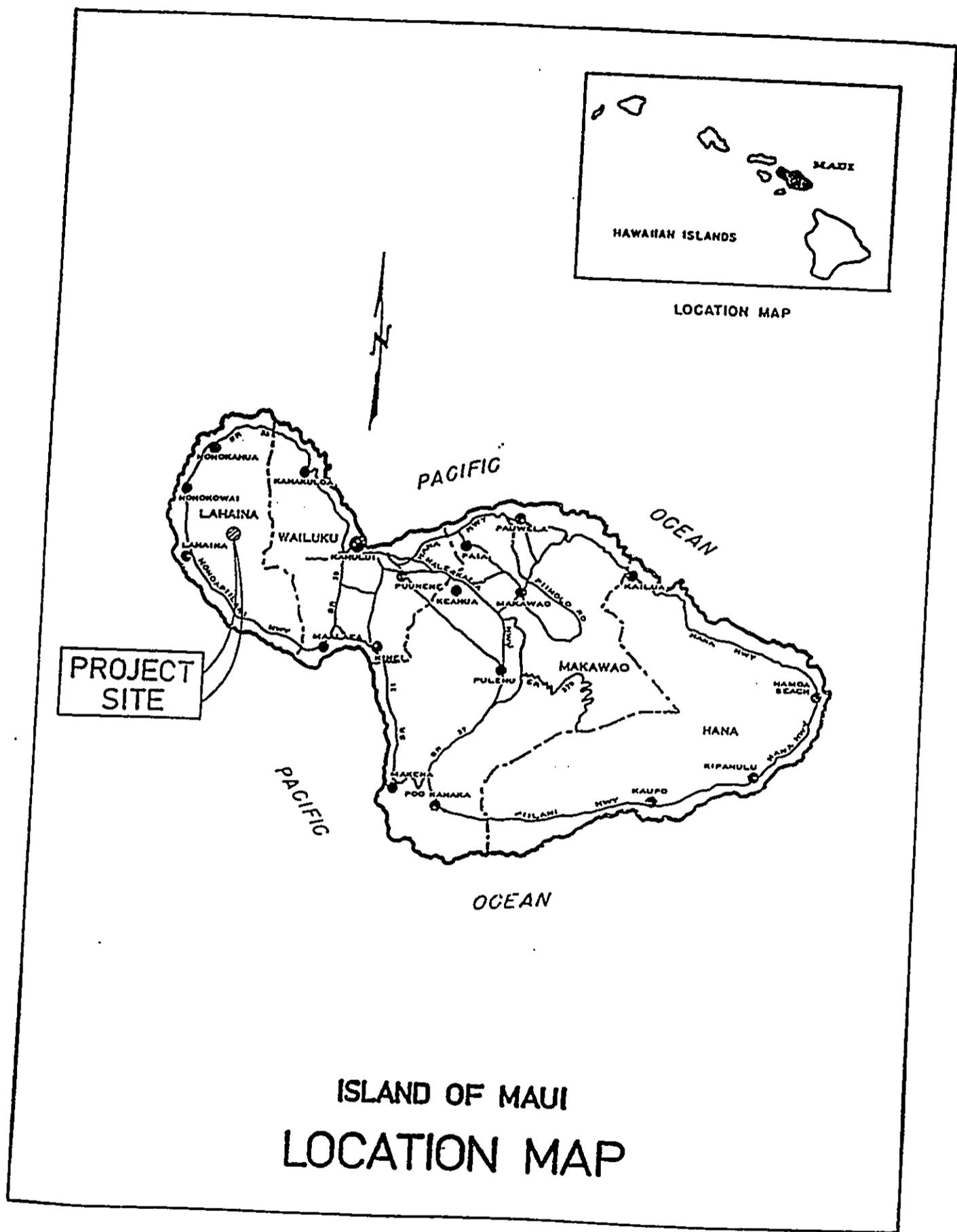
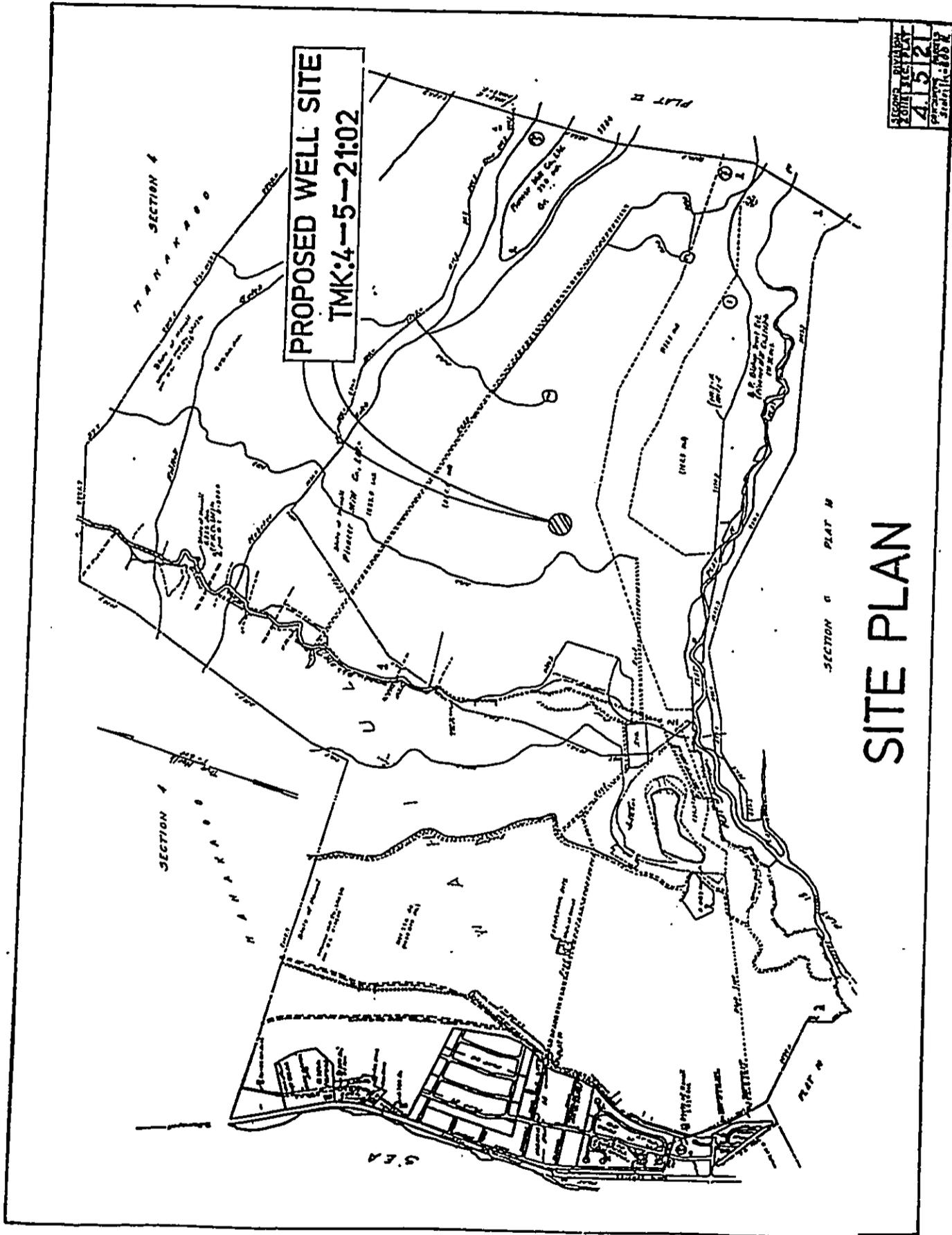


FIGURE 1



SECTION DIVISION
 JOHN H. H. PLAT
 4 5 2 1
 Project No. 1002

SECTION 6 PLAT 10
 SITE PLAN

FIGURE 2

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 conditions.

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

Ground Elevation:	1050 feet
Casing Diameter:	16 inch inside diameter
Length of Solid Casing:	1050 feet
Length of Screen Casing:	20 feet
Length of Open Hole:	(to be determined in field)
Total Depth:	1100 feet
Pump Test Time:	72 to 150 hours
Pumping Range:	300 to 500 gallons per minute
Construction Time:	6 months
Construction Cost:	\$821,000

IV. The Assessment Process

A geo-hydrologic study of the Lahaina 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

The project site is located in the Lahaina District on the northwest side of the island of Maui, just above the sugar cane fields of Lahaina town. The access to the previously cleared and graded site at the 1050 feet elevation is through a short dirt road from the cane field roads.

The Lahaina District population is about 14,000 residents, an increase of nearly 40% from 1980. This is a result of the growth of tourism more than offsetting the slight decline of sugar and pineapple activities. The urban growth has been mostly along the coastal areas below the Honoapiilani Highway.

The average annual rainfall ranges from 15 inches at the coast, 20 inches at the site, and a rapid increase to 380 inches at Puu Kukui, the top of the West Maui Mountains. The average annual temperature is 75 degrees at the coast, about 72 degrees at the site, to a probable 60 degrees at Puu Kukui.

The higher elevations with high rainfall is the watershed for the Lahaina groundwater aquifer that this well will be tapping. Geologically, the aquifer is expected to be composed of the highly permeable basalt lava flows of the Wailuku Volcanic Series. The exploratory well will determine the area's groundwater quality and quantity and also provide geologic data.

The site is zoned by the State Land Use Commission as "Agriculture". Wells are permitted use under this designation. The State has leased the site parcel to Pioneer Mill Company, Ltd., under a larger parcel of 1087 acres. The portion needed for the site is about 5,000 sq. ft., unused and can be withdrawn from the lease.

It is unlikely that this site has archaeological or historical values as it was previously cleared and graded. No endangered species of fauna or flora is expected to be in this site.

VI. Probable Impacts and Mitigative Measures

The anticipated impacts of the project will be from the construction work which involves site preparation, drilling and well testing.

An area of about 5,000 square feet will be used to set the drilling equipment and storage for the necessary materials. Since the area has already been cleared and graded, including the short access road, only a minimal clearing and grading may be necessary. Although no archaeological values are anticipated at the site because of the previous grading, a possible inspection of the site will be coordinated with the State Historic Preservation Program. Also, the contractor must adhere to the dust and erosion control provisions of the contract.

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 the 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 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.

VII. Alternatives

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

A "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 geo-hydrologic and topographic conditions, cost, risk 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 Wahikuli Exploratory Well 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

- GEOLOGY AND GROUNDWATER RESOURCES OF THE ISLAND OF MAUI, H.T.
Stearns, 1942.
STATE OF HAWAII DATA BOOK, Department of Business and Economic
Development, 1988.
RAINFALL ATLAS OF HAWAII, Division of Water and Land Development,
1986.