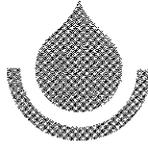


BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96843



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KAZU HAYASHIDA
Manager and Chief Engineer

February 28, 1986

Ms. Letitia N. Uyehara, Director
Office of Environmental
Quality Control
State of Hawaii
Kekuanaoa Building, #115
465 South King Street
Honolulu, Hawaii 96813

Dear Ms. Uyehara:

Subject: Waipio Exploratory Well III, TMK: 9-4-06:14

We request that our proposed exploratory well project be published in your Environmental Quality Control Bulletin as a Negative Declaration. Four copies of our environmental assessment are enclosed.

If you have any questions, please contact Lawrence Whang at 527-6138.

Very truly yours,

KAZU HAYASHIDA
Manager and Chief Engineer

Enclosures

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ENVIRONMENTAL ASSESSMENT

FOR

WAIPIO HEIGHTS EXPLORATORY WELL III
WAIPIO, OAHU, HAWAII

TMK: 9-4-06:14

Prepared by: Board of Water Supply
City and County of Honolulu
630 South King Street
Honolulu, Hawaii 96843

Contact Person: Lawrence Whang, Ph. 527-6138

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KAZU HAYASHIDA
Manager and Chief Engineer

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PROJECT DESCRIPTION AND OBJECTIVES

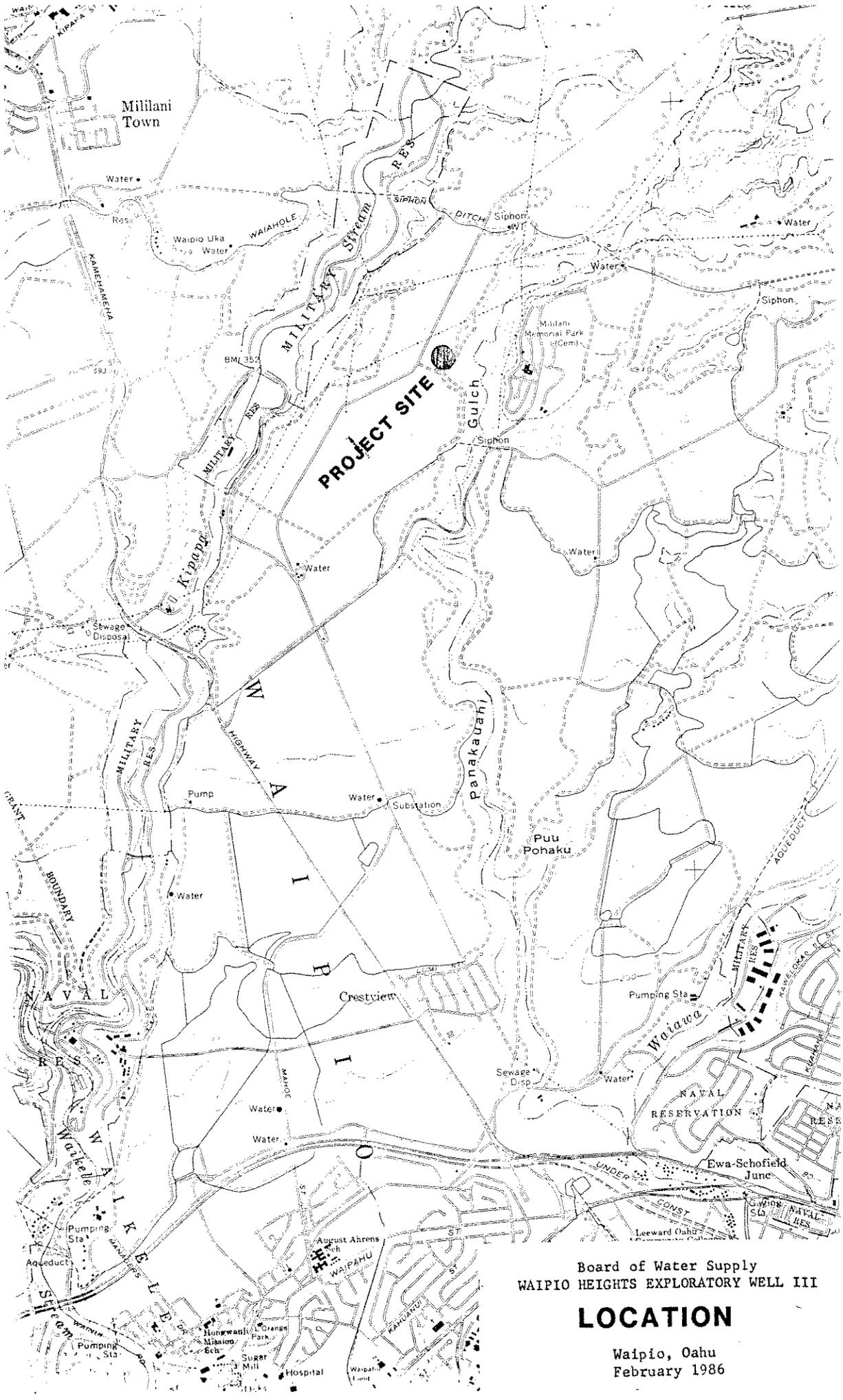
The Board of Water Supply proposes to drill two exploratory wells at our existing Waipio 595 Reservoir site. The purpose of the exploratory wells are to determine the potential yield and water quality.

This project is anticipated to utilize part of the remaining sustainable yield that is available in the Pearl Harbor Groundwater Control Area.

Water from the wells will be used in the Board's Waipio Heights 595 system, to support Dole Hawaii Division's proposed cannery and the City's 1,750 low income residential development.

Well Description

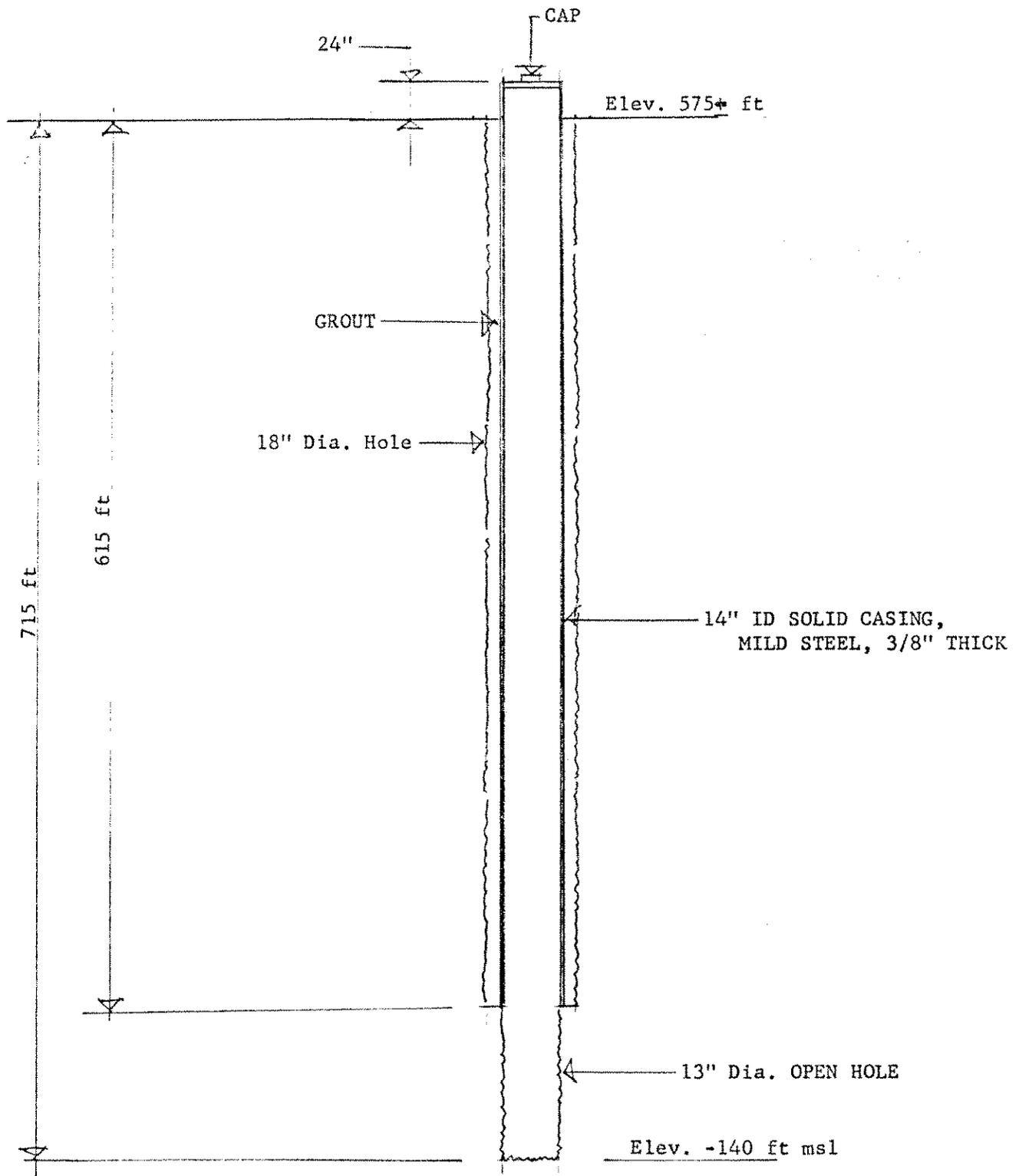
The proposed exploratory wells will be drilled to a depth of -140 feet (msl) with a 14-inch solid casing grouted in place and have an anticipated yield of 1,050 gallons per minute (1.5 mgd).



Board of Water Supply
 WAIPIO HEIGHTS EXPLORATORY WELL III

LOCATION

Waipio, Oahu
 February 1986



Board of Water Supply
 WAIPIO HEIGHTS EXPLORATORY WELL III

WELL-CROSS SECTION

Waipio, Oahu
 February 1986

Well Drilling

Well drilling will be performed by using either the percussion (cable-tool) method or the hydraulic rotary drilling method.

Drilling by the cable-tool or percussion method is performed by raising and dropping a heavy drill bit. The impact of the bit crushes the underlying soil and rock. A bailer is used to periodically remove the cuttings from the hole.

When drilling with the hydraulic rotary method, a drill bit is rotated at a moderate speed. Hydraulic fluid is pumped to the bottom of the hole which cools the bit and carries the cuttings up in the annular space between the bit and the wall of the hole. The cuttings are discharged to a settling pit where the cuttings will settle and some of the hydraulic fluid would become available for reuse.

A work area ranging from 5,000 to 10,000 square feet may be required.

Yield and Drawdown Test

After the well drilling is completed, a yield and drawdown test will be conducted. The well will be pumped at various rates and the respective drawdowns will be noted. This test determines the sustainable yield of the wells; the yield at which the well can be continuously pumped without causing detrimental effects to the aquifer or other existing wells in the area.

A five-day sustained pumping test follows the yield-drawdown test to confirm the sustainable yield and to measure any changes in water quality.

AFFECTED ENVIRONMENT

Land Use

The site of the proposed wells is an existing reservoir site with two 1.5 million gallon reservoirs.

The predominant land use is agriculture with pineapples being the major crop.

Topography

The land surface is relatively flat with slopes generally less than 5%.

Soils

The predominant soil found in the vicinity of the proposed project belongs to the Wahiawa Series. This series consists of well-drained soils on the uplands and developed in residuum and old alluvium derived from basic igneous rock. Of this series, the prevalent type is Wahiawa Silty clay (WaA), 0 to 3 percent slopes. Permeability is moderately rapid accounting for the slow runoff characteristic.

Other soil types surrounding the project site include Manana silty clay and Helemano silty clay.

Climate and Rainfall

The average temperature ranges from 68°F to 76°F.

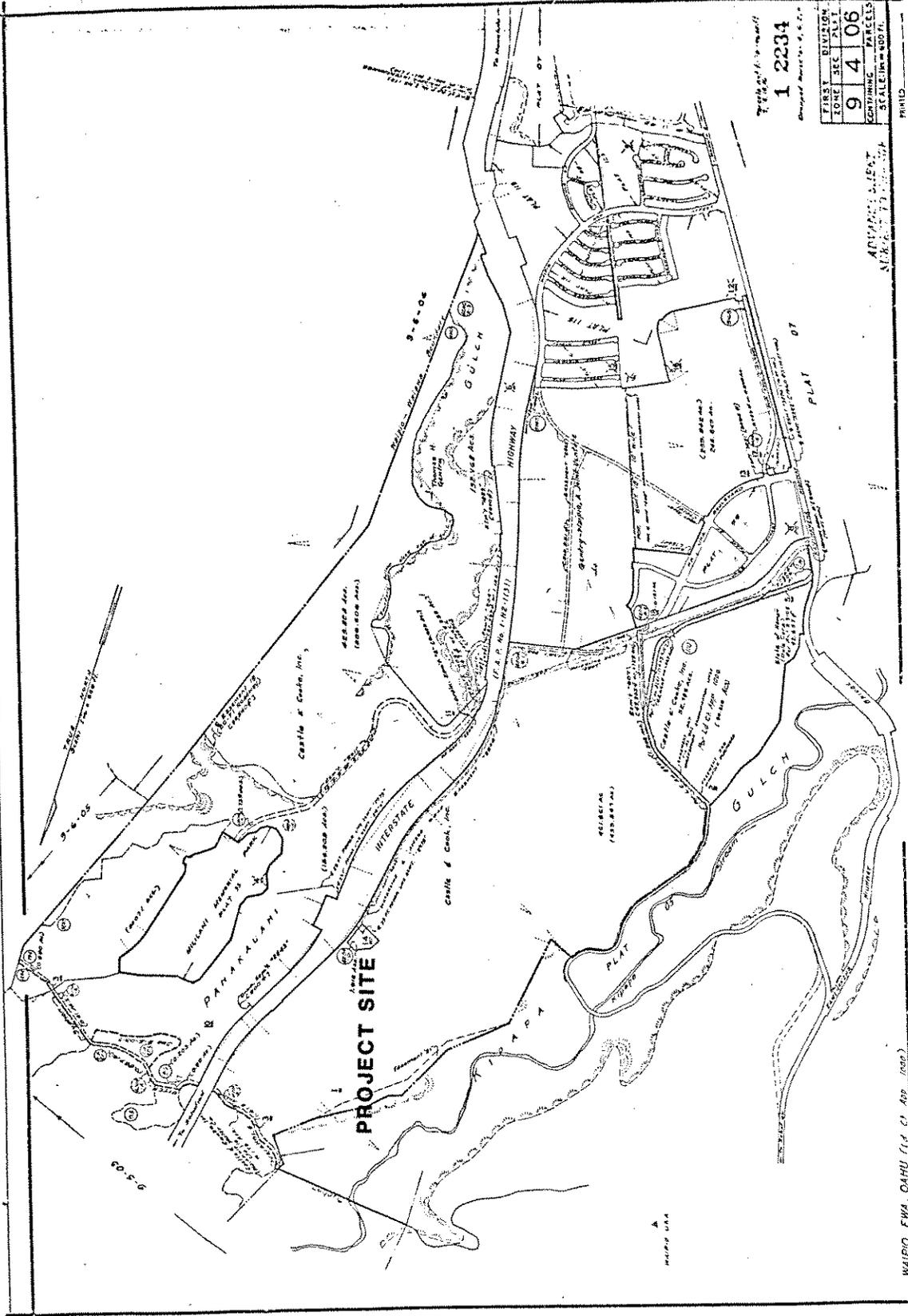
Average rainfall is about 40 inches annually.

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FIRST DIVISION	9
ZONE SEC	4
PLAT	06
CONV. PARCELS	
SCALE IN FEET	

APPLICANT: DIST. ALBERT J. ...

WAIPIO, OAHU (L.O. AND ISS.)



Board of Water Supply
WAIPIO HEIGHTS EXPLORATORY WELL III

TAX MAP KEY

Waipio, Oahu
February 1986

Vegetation

Landscaping of the reservoir site is sparse and includes several Formosan Koa (*Acacia confusa*) and Pangola grass (*Digitaria Decumbens*). The land adjoining the project site is planted in pineapple.

Fauna

During a site survey, the only animal seen was the golden plover. Other animals that may be found include barred doves, sparrows, mynahs and the mongoose.

No endangered animals are anticipated to be affected since one side of the project site borders the H-2 freeway and the other sides border existing pineapple fields.

Flood

The project is sited in an area classed as Zone D, in the Flood Insurance Rate Maps. Zone D is designated as an area of undetermined, but possible flood hazard.

Social

There will be no displacement of housing units or relocation of people.

Economic

The project will provide temporary employment for the well drilling phase and the expenditure of funds for materials to complete the work.

Archaeology

There are no known historical or archaeological sites listed in the Hawaii Register of Historic Places within one mile of the project site. However, this does not indicate the absence of any historical or archaeological site. Therefore, should any bones, charcoal, or other artifacts be encountered, all work will be stopped until the State Historic Preservation Office is notified and acceptable mitigative measures can be implemented.

Existing Utilities

Water, electrical, and telephone service are available to the property. Electrical service must be up-graded in the future to accommodate any well pumps and control building that may be built.

Water Quality

In general, most of the existing sources of groundwater produce water meeting the State's Safe Drinking Water Regulations. Some existing sources down-gradient from the proposed site show contamination from pesticides formerly used in growing pineapple. Sources in Mililani up-gradient from the proposed project are contaminated with low levels of dibromochloropropane (DBCP) and 1,2,3-trichloropropane (TCP). Should water developed from the proposed well be contaminated with low levels of DBCP or TCP, a granular activated carbon system may be used to remove the pesticides from the drinking water. Other chemicals that may be present in the water include tetrachloroethylene (PCE) and ethylene dibromide (EDB).

Access Roads

Access to the project would be from Kamehameha Highway, the Mililani Cemetery Road, and Dole's maintenance road along the H-2 freeway.

Kamehameha Highway is a three-lane, asphaltic concrete roadway.

The Mililani Cemetery Road is a divided two-lane roadway from the entrance at Kamehameha Highway to an area just before the bridge crossing over the H-2 freeway. The roadway is paved with asphaltic concrete.

Dole's maintenance road is a slightly rutted, dirt roadway.

DETERMINATION

The exploratory well phase of the project is recommended to be filed as a Negative Declaration.

The proposed well drilling work is not anticipated to have any significant environmental impacts. All of the impacts will be temporary and related to the well drilling work such as increase in noise, dust and exhaust emissions. Adequate mitigative measures will be implemented to reduce the impacts from the construction work.

There will be no displacement of buildings or relocation of people. No known archaeological sites, endangered plants, endangered animals or their habitats will be affected.

Social and economic activities will not be affected by the project.

A separate assessment will be prepared to determine the impacts of a water production facility and if an environmental impact statement is needed.

CONSULTED PARTIES

Historic Sites Division

State Parks

Department of Land and Natural Resources

RECEIVED
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