

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621  
HONOLULU, HAWAII 96809

OCT 27 1999

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

RECEIVED

99 OCT 28

OFFICE OF ENVIRONMENTAL QUALITY CONTROL

REF:LD/WL-EK

TO: Ms. Genevieve Salmonson, Director  
Office of Environmental Quality Control

FROM: Timothy E. Johns, Chairperson *Timothy E. Johns*

SUBJECT: Final Environmental Assessment/Finding of No Significant Impact  
Proposed Exploratory Well Field, Waikele, Oahu, Hawaii,  
TMK 9-4-02: 8, First Division

Pursuant to Chapter 343, Hawaii Revised Statutes, we submit four (4) copies of the Final Environmental Assessment/ Finding of No Significant Impact for the installation of exploratory wells in Waikele, Oahu. We have reviewed the comments received during the 30-day public comment period which began on August 8, 1999, and determined that this project will not have significant environmental effects. A Finding of No Significant Impact has been issued. Please publish this notice in the November 8<sup>th</sup> OEQC Environmental Notice.

We have attached a completed OEQC Publication Form with computer disc, and four (4) copies of the final EA. Should you have any questions, please call Mr. Andrew Monden, Chief Engineer, at extension 70230.

Attachments

c: Glen Koyama, Belt Collins Hawaii

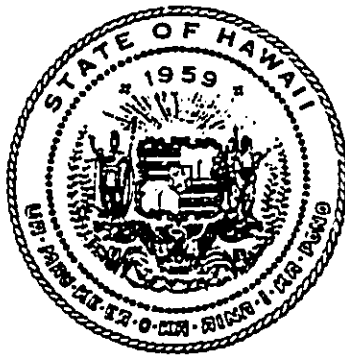
NOV - 8 1999

**FILE COPY**

1999-11-08-DA-FA - Waikela Gulch Exploratory  
Wells

**FINAL ENVIRONMENTAL ASSESSMENT**

**PROPOSED WELL FIELD  
Waikela, Oahu, Hawaii**



Engineering Branch  
Land Division  
Department of Land and Natural Resources  
State of Hawaii

**FINAL ENVIRONMENTAL ASSESSMENT**

**PROPOSED WELL FIELD  
Waikele, Oahu, Hawaii**

**October 20, 1999**

**Prepared for:**

**Engineering Branch  
Land Division  
Department of Land and Natural Resources  
State of Hawaii**

**Prepared by:**

**Belt Collins Hawaii  
Honolulu, Hawaii**

## TABLE OF CONTENTS

		<u>Page</u>
I.	SUMMARY .....	1
II.	DESCRIPTION OF THE PROPOSED ACTION .....	2
	Project Objective .....	2
	Description of the Proposed Action .....	2
	Well Drilling .....	5
	Pump Test .....	9
	Phase II Production Wells .....	9
	Access to Project Site .....	9
	Development Schedule .....	10
	Development Cost .....	10
III.	DESCRIPTION OF THE AFFECTED ENVIRONMENT .....	10
	Existing Land Use .....	10
	Land Tenure .....	12
	Physiography .....	13
	Soil .....	13
	Climate .....	13
	Hydrology .....	13
	Flora and Fauna .....	14
	Air Quality .....	14
	Sonic Ambiance .....	14
	Archaeological, Historical and Cultural Resources .....	14
	Natural Hazards .....	15
	Visual .....	15
IV.	SOCIO-ECONOMIC SETTING .....	15
	Socio-Economic Background of Region .....	15
	Economic Impacts Assessment .....	17
	Community Issues .....	17
V.	PUBLIC FACILITIES AND SERVICES .....	17
	Circulation and Traffic .....	17
	Water, Sewer, Electricity and Telephone .....	18
	Solid Waste .....	18
	Public Services .....	18
VI.	RELATIONSHIP TO PUBLIC LAND USE POLICIES .....	18
	State Land Use District .....	18
	State Environmental Policies .....	19
	Central Oahu Development Plan .....	19
	City and County Land Use Ordinance .....	19
	Special Management Area .....	19
	Required Permits and Approvals and Their Status .....	19

VII.	SUMMARY OF MAJOR IMPACTS .....	20
	Construction Impacts .....	20
	Operational Impacts .....	20
VIII.	PROPOSED MITIGATION MEASURES .....	21
IX.	ALTERNATIVES CONSIDERED .....	22
	No Action .....	22
	Alternative Sites .....	22
	Alternative Methodology .....	23
X.	DETERMINATION .....	23
XI.	FINDINGS AND REASONS SUPPORTING THE DETERMINATION .....	23
XII.	COMMENTS FROM AND RESPONSES TO AGENCIES AND PRIVATE ORGANIZATIONS .....	25
APPENDIX		
LETTERS RECEIVED DURING EARLY CONSULTATION PERIOD		

TABLE OF FIGURES

	<u>Page</u>
1. Location Map .....	3
2. Tax Map Key .....	4
3. USGS Topographic Map .....	6
4. Site Access .....	7
5. Well Field Site Plan .....	8
6. Location of Wells within Project Vicinity .....	11
7. Flood Insurance Rate Map .....	16

**I. SUMMARY:**

**PROPOSING AGENCY:**

Department of Land and Natural Resources (DLNR), Land Division, Engineering Branch, State of Hawaii

**APPROVING AGENCY:**

Board of Land and Natural Resources (BLNR), State of Hawaii

**GENERAL PROJECT DESCRIPTION:**

The DLNR is proposing to develop a well field for exploratory wells in Waikele Gulch. Four (4) wells will be drilled. If the wells prove successful, they will be outfitted and converted to permanent production wells as part of a subsequent phase for the project. Developing these wells will provide an additional source of water for State-sponsored projects in the Waipahu and surrounding communities.

**PROJECT LOCATION:**

Waikele Gulch, Oahu  
TMK 9-4-02: 8

**DETERMINATION:**

Finding of No Significant Impact

**CONSULTED AGENCIES AND PRIVATE ORGANIZATIONS:**

Federal Agencies

U.S. Navy  
U.S. Department of the Army, Corps of Engineers

State Agencies

Department of Transportation, Highways Division  
Department of Land and Natural Resources, Land Division  
Department of Health  
State Historic Preservation Division  
Office of Hawaiian Affairs  
Na Ala Hele Program

City Agencies

Department of Design and Construction  
Department of Planning and Permitting  
Department of Transportation Services  
Fire Department  
Police Department

Utility Companies

Board of Water Supply

Property Owners

Amfac Land Company, Ltd.

**II. DESCRIPTION OF THE PROPOSED ACTION**

**Project Objective**

The Ewa District is one of the fastest growing regions on Oahu. The demand for water is continuing to put pressures on the existing water system serving the area. With the increase in residents, there is also an increase demand for State-sponsored projects which include schools and playgrounds, civic buildings, court houses, satellite State offices, parks, health and medical clinics, welfare and human services offices, among others. The State wishes to meet its responsibility for providing sources of water for its projects. Exploratory wells will be drilled in the region to find the needed sources. After each well is drilled and cased, pump tests will be conducted to determine the quantity and quality of the source. If the exploratory wells prove successful, they will be outfitted and converted into production wells. The DLNR is seeking a yield of 4.0 million gallons per day (mgd) from the proposed site. Upon completion of the conversion, the State plans to turn over the wells to the Honolulu Board of Water Supply for addition to the City and County water system.

**Description of the Proposed Action**

The DLNR is proposing to develop a well field containing four (4) exploratory wells on an approximately 25,000 sq. ft. site that is situated within a 49.2-acre vacant parcel (see Figures 1) owned by Oahu Sugar Company, Limited (hereafter referred to as Oahu Sugar Company). A right-of-entry will be sought from the owner to conduct the exploratory operation. The parcel, identified as Tax Map Key 9-4-02: 8, is located in Waikele Gulch mauka of the H-1 Freeway (see Figure 2). Village Park of Kunia and Waikele residential community are located above the gulch rim to the west and east of the property, respectively.





**Figure 1  
LOCATION MAP**



0 900 1800  
SCALE IN FEET

Waiawa Exploratory Well  
Prepared for State DLNR  
Prepared by: Belt Collins Hawaii • October 1999

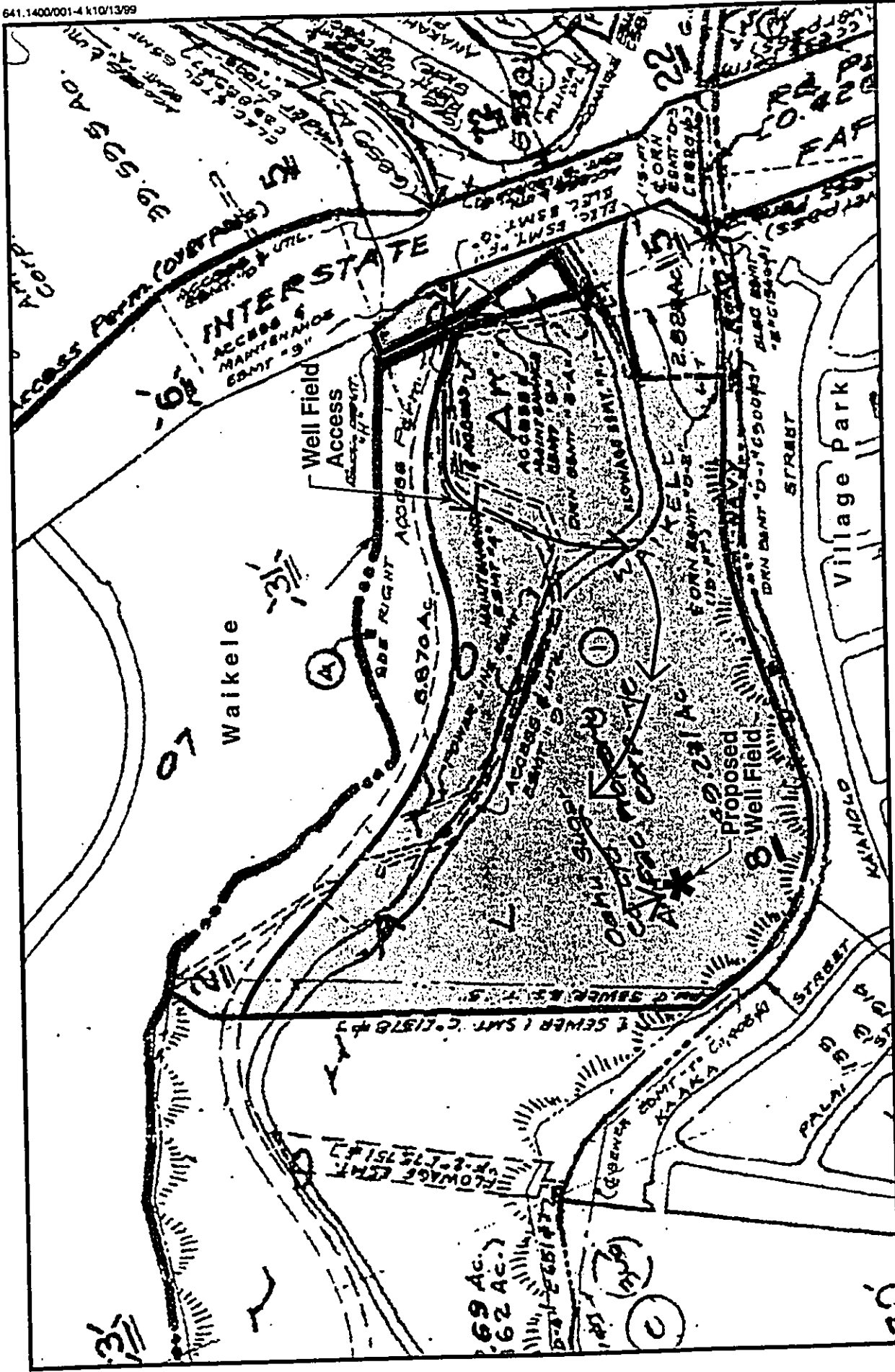


Figure 2  
TAX MAP KEY

Waikaleo Exploratory Well  
Prepared for State DLNR

Prepared by Belt Collins Hawaii • October 1999



Access to the parcel is via a private road from Waipahu Street in Waipahu. The private road, which is owned by Oahu Sugar Company, is unimproved, but a segment of the road is paved. It extends approximately 4,650 feet from the Waipahu Street to the project site (see Figures 3 & 4). A very small segment of the road near Waipahu Street crosses a sliver of land owned by the City and County of Honolulu.

The DLNR is looking to have four successful exploratory wells on the site. The first well will be drilled, cased and pump tested at the site. An assessment will be made on the quantity and quality of the water produced from the well. If the test results are favorable or acceptable, drilling will then proceed with the next well. This assessment will be made after each pump test. If pump tests are not successful, the well field will be abandoned and a new well field will be explored.

When four wells are successful, they will then be all outfitted and converted to production wells. The conversion to production wells, which will be preceded by the acquisition of the site and associated easements, will be part of a Phase II operation, and a separate Environmental Assessment (EA) or Environmental Impact Statement (EIS) will be prepared, as required, under the provisions of Chapter 343, Hawaii Revised Statutes.

#### **Well Drilling**

The new well field (estimated elevation 90' above mean sea level (msl)) will involve the installation of exploratory wells and subsequent pump tests (see Figure 5). Initial work would require site clearing and minor grading of approximately 5,000 sq. ft. for each well. A truck or trailer-mounted drilling rig and other support equipment will be brought to the site to drill an approximately 23-inch diameter hole approximately 345 feet deep. The existing water table is estimated to be at 17' or 18' msl. A 16-inch solid casing will then be grouted into the hole for a depth of approximately 265 feet. The depth of the wells will be adjusted based on the actual conditions in the field.

In drilling the hole, either a cable tool or rotary drilling method will be used. The cable tool method employs a repeated raising and dropping of a heavy chisel bit within the hole until the desired depth has been attained. Material from the impact procedure is then bailed from the hole and placed in a disposal pit. The residual material is not expected to contain any contaminants.

The rotary method employs a drill bit that bores a hole while drilling fluid is pumped down the drill stem to the drilling bit. The drilling fluid, comprised of air and a little fluid (water and soap), is then forced back up the hole carrying with it drill cuttings to the surface where the material is

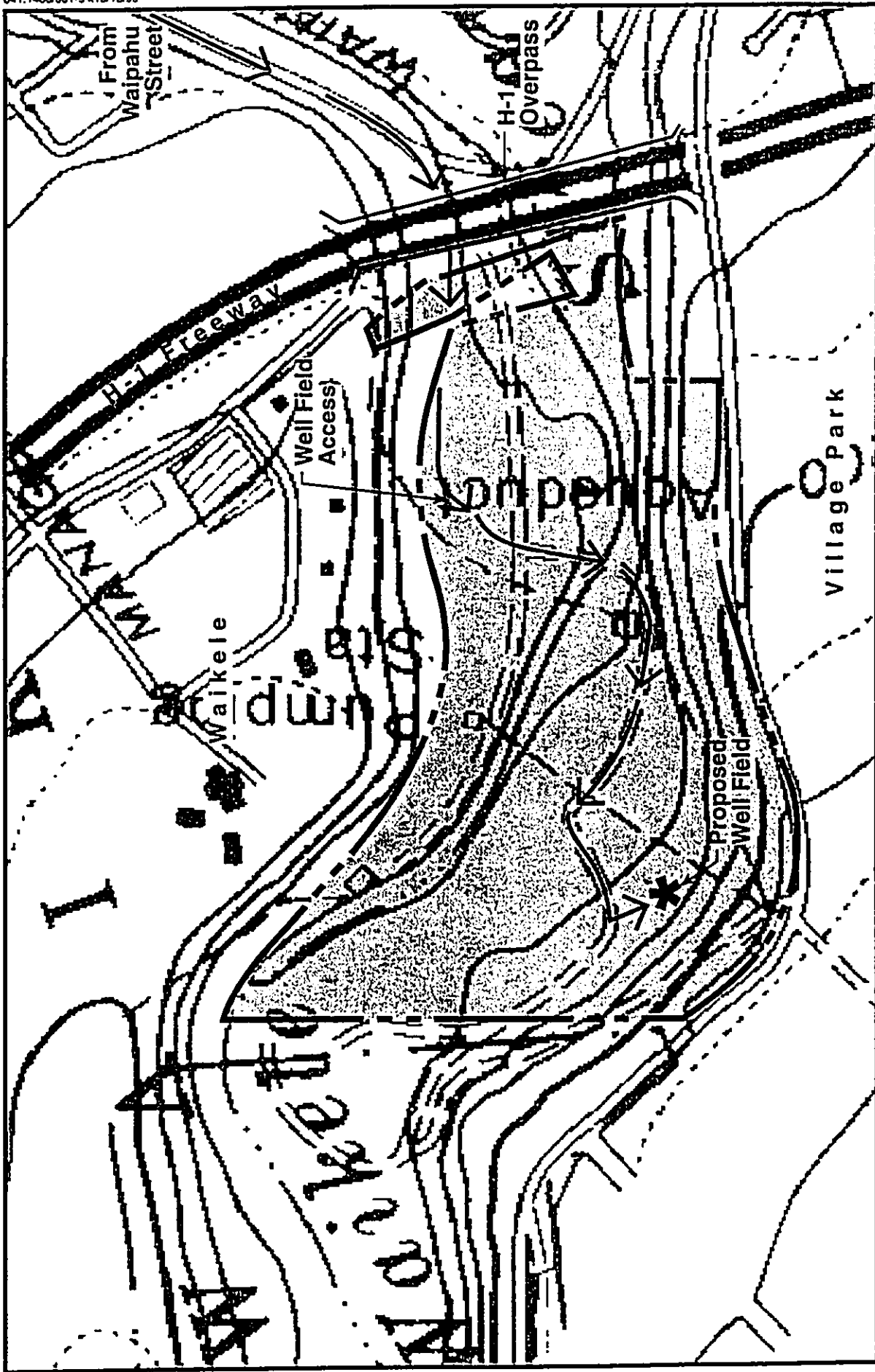


Figure 3  
USGS TOPOGRAPHIC MAP

Waiawa Exploratory Well  
Prepared for State DLNR  
Prepared by Belt Collins Hawaii • October 1999



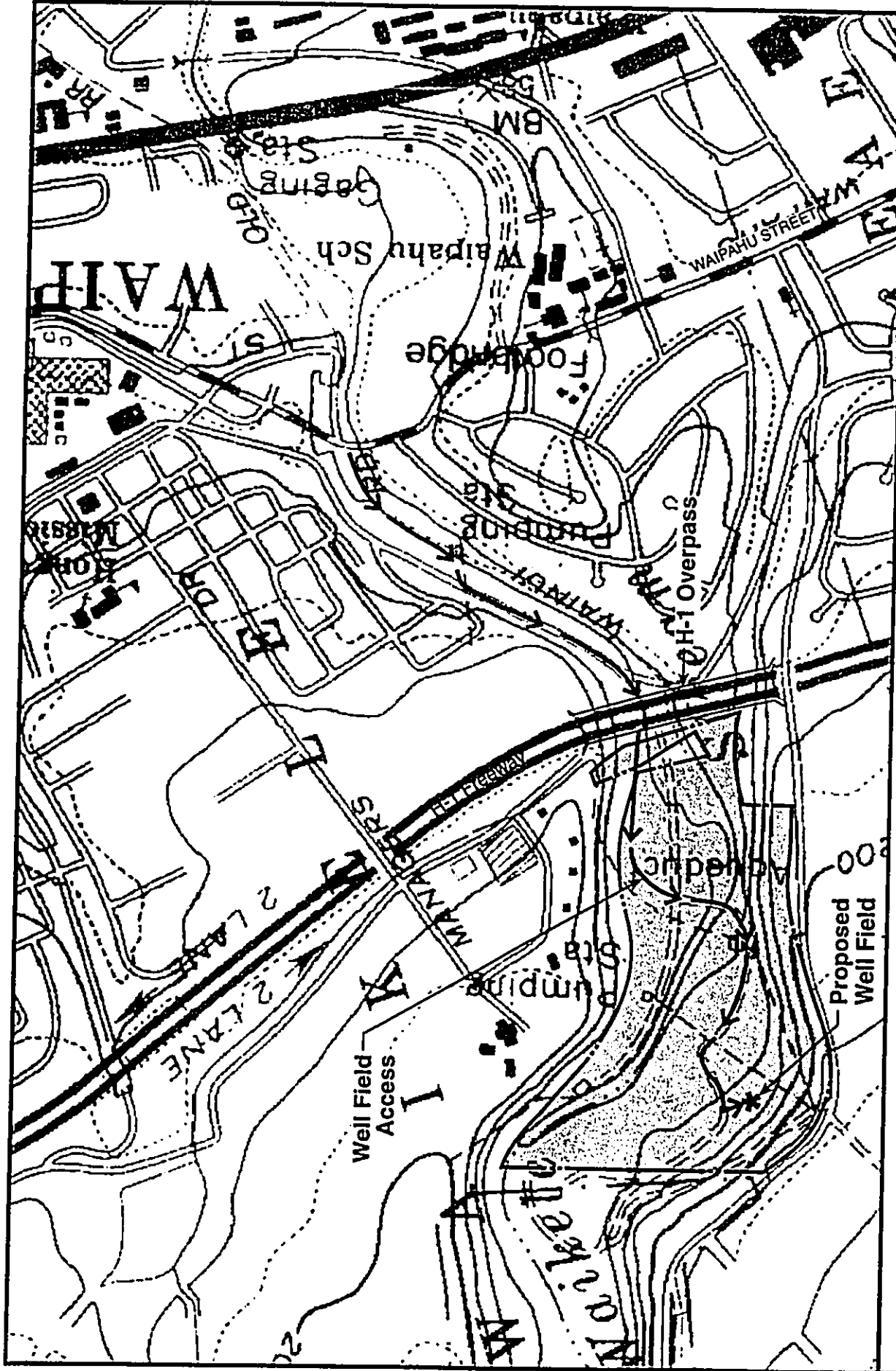
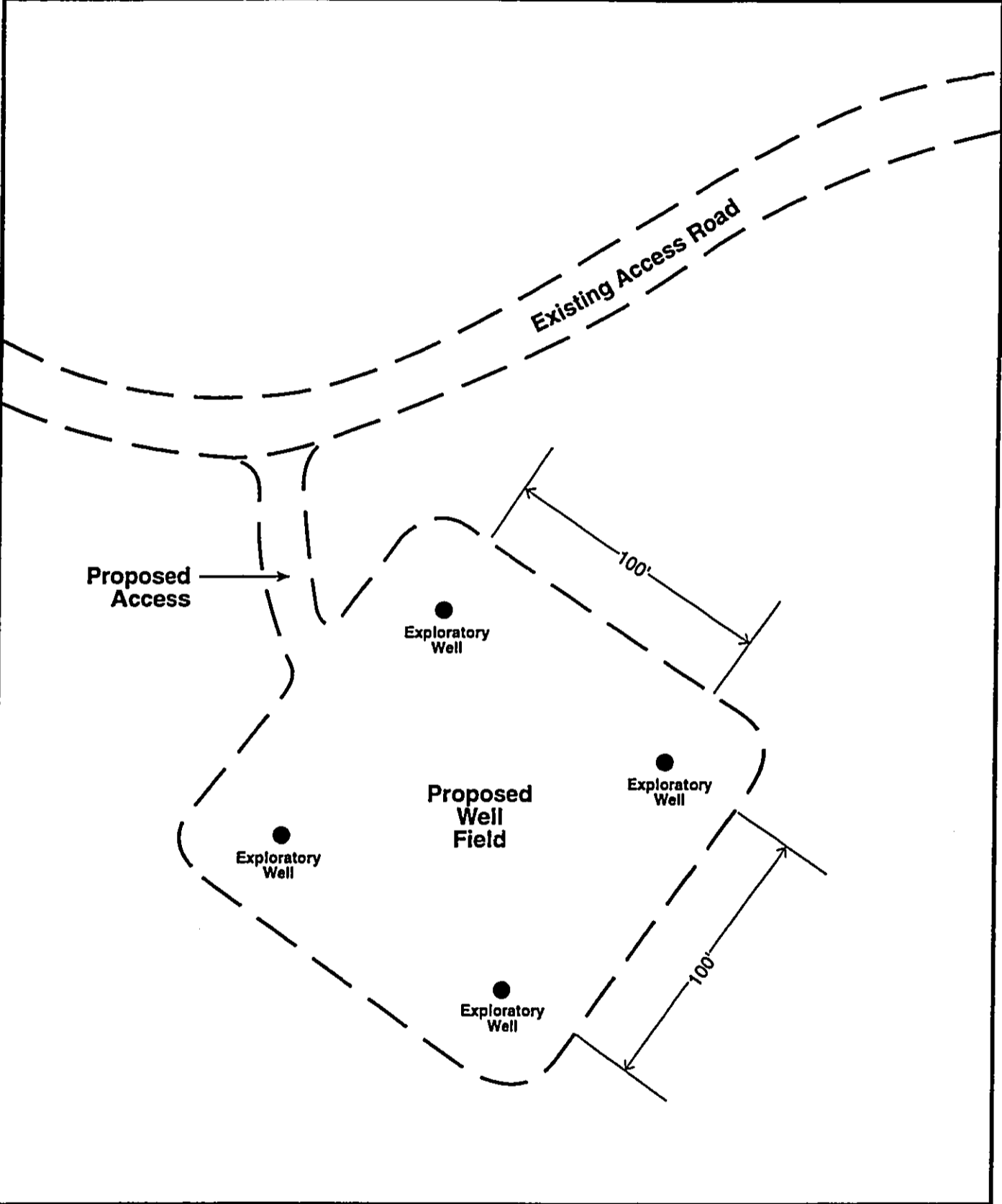


Figure 4  
SITE ACCESS

Waipahu Exploratory Well  
Prepared for State DLNR  
Prepared by Belt Collins Hawaii • October 1999

W A I P A H U



0 25 50  
SCALE IN FEET

**Figure 5**  
**WELL FIELD SITE PLAN**

Walawa Exploratory Well  
Prepared for State DLNR  
Prepared by: Belt Collins Hawaii • October 1999

then removed from the drilling mud by a screen and placed in on-site disposal pits.

A self-contained engine operated by diesel fuel will be used to provide power for the drilling rig.

### **Pump Test**

After the drilling operation is completed, the pump testing phase will occur. Two tests are involved. The first test, known as the step-drawdown or yield-drawdown test, includes the pumping of water from the well at various pumping rates to estimate the well's specific capacity (quantity withdrawn per foot of drawdown). For each pumping rate, the drawdown is measured.

After the step-drawdown test, a seven to ten day sustained pumping test will be conducted. The well will be continuously pumped 24 hours a day for seven to ten days. The test is designed to determine the sustainable capacity of the well. It will also include tests on water quality as well as monitoring of existing wells downstream of the well field.

After the pump test is completed, the pump will be removed, the well will be capped, the drilling rig and associated equipment will be taken off the site, and the area surrounding the well will be restored to its original condition.

### **Phase II Production Wells**

If the exploratory wells prove successful, they will be outfitted and converted to production wells. This phase of the project will be covered under a separate contract and scope of work and a separate EA or EIS will be prepared.

### **Access to Project Site**

An unimproved private road (a portion is paved) owned by Oahu Sugar Company extends approximately 4,650 feet from Waipahu Street to the project site. The main route of the access road, which crosses City and County land near the Waipahu Street entrance, follows Waikele Stream on the east side. Then, after approximately 3,200 feet, a branch road crosses over an existing concrete slab bridge to the west side where the project site is located. The H-1 Freeway passes over the access road at about the midpoint to the proposed well field.

The DLNR will seek a right of entry from Oahu Sugar Company and the City and County to use this access for the proposed well field. No

improvements are planned for the access. The right-of-way and concrete slab bridge stream crossing are adequate to accommodate the required vehicles and equipment for the drilling and pump testing operations.

#### **Development Schedule**

Installation of the first exploratory well is estimated to commence in November 1999. The drilling and subsequent pump tests are expected to be completed approximately five months after the project is begun or about April 2000. Each subsequent well would require a similar timetable for implementation plus selection and negotiations with a contractor and construction mobilization.

#### **Development Cost**

The preliminary cost estimate for the first exploratory well and pump test is approximately \$375,000. The source of funding for this phase of the project is State Appropriation, Act 218, SLH 1995, Item A-20. The three remaining or subsequent wells would cost approximately \$600,000. The source of funding for this phase is Act 116, SLH 1998, Item A-25. No federal monies are involved.

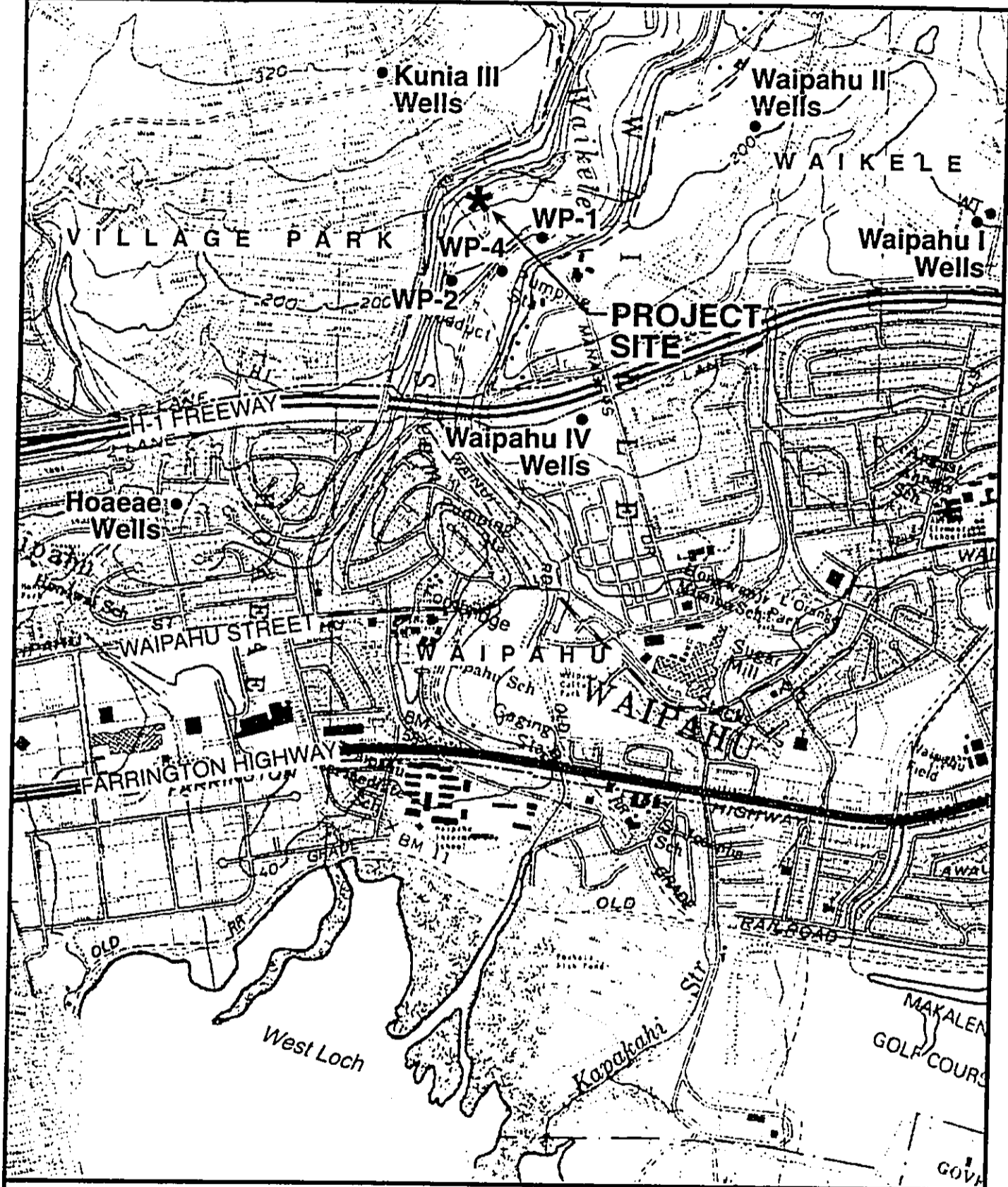
### **III. DESCRIPTION OF THE AFFECTED ENVIRONMENT**

#### **Existing Land Use**

The project site sits in a vacant area within the broad Waikele Gulch. The area was once occupied by a few plantation homes associated with the earlier operations of the Oahu Sugar Company. Upstream of the site is the abandoned Lualualei Waikele U.S. Naval Reservation. Down stream or makai of the site are additional vacant lands and the H-1 Freeway overpass. Makai of the H-1 Freeway is the residential community of Waipahu.

The vacant land makai of the proposed well field was earlier used for sugar cultivation by the sugar company whose mill (now abandoned) is located in Waipahu. Also, adjacent to the site are three well batteries owned by Oahu Sugar Company (see Figure 6). The first well battery (Well WP-2), which is currently inactive, has an approximately 19 mgd pumpage capacity. It consists of an interconnecting linear alignment of wells hooked up to a pump house containing four pumps. The second well battery (Well WP-4) has been ordered by the State Commission on Water Resource Management (CWRM) to be capped. It has a pumpage capacity of 10.0 mgd previously approved by the CWRM. It is noted that DLNR may use these well batteries as monitoring wells when pump tests are conducted on the proposed exploratory wells.





**Figure 6**  
**LOCATION OF WELLS**  
**WITHIN PROJECT VICINITY**  
 Waiawa Exploratory Well  
 Prepared for State DLNR  
 Prepared by: Belt Collins Hawaii • October 1999

The two well batteries, which once supplied water to the sugar mill, are antiquated and inefficient (in terms of pumpage), and their reuse for today's production demands would not be feasible. The third well battery (Well WP-1), which has a pumpage capacity of 1.96 mgd, is still in operation and is currently providing water to the Waikele Golf Course.

Other wells in the immediate vicinity include Kunia III Wells in Royal Kunia, Waipahu II Wells in West Waikele, Waipahu I Wells in Central Waikele, Hoaeae Wells in West Waipahu and Waipahu IV Wells on the makai side of the H-1 Freeway near the Managers Drive (see Figure 6). The U.S. Navy also owns a well within the Lualualei Waikele Naval Reservation approximately 2,800 feet upstream from the project site. Waipahu I & II Wells and Hoaeae Wells are owned by the BWS and are in production. The Kunia III Wells, Waipahu IV Wells and U.S. Naval well are currently unused.

Plans call for wells that are put into production, particularly those that are suspected of having high levels of contaminants, to be outfitted with granular activated carbon filters to remove pesticide contaminants from the water. Should the proposed exploratory wells be tested positive or at specific levels for such contaminants, they will be equipped with these filters prior to their production stage.

Waipahu I and Waipahu II wells are currently employing granular activated charcoal treatment for Ethylene Dibromide (EDB) and Trichloropropane (TCP) contaminants. The Waipahu II well is also being treated for Trichloroethylene (TCE).

An unimproved road currently provides access to the existing wells and project site. Access to the military reservation is provided by a separate road which extends across the H-1 Freeway via an overpass and follows the top of Waikele Gulch's western rim before descending along the gulch wall toward the military reservation. Another access to the military facility is provided by a dirt road from the Waikele or east side of the gulch.

On the plateau on either side of the gulch are the residential communities of Village Park and Waikele. Access to these communities are separate from the project site access. Waikele is reached from Paiwa Street, and Village Park is reached from Kunia Road.

#### **Land Tenure**

The project site is owned by the Oahu Sugar Company. A right of entry will be obtained from the owner prior to the commencement of the project installation.

### Physiography

The project site is located at the base of the western wall of Waikele Gulch at an elevation of approximately 90 feet. Waikele Stream flows through the middle of the broad gulch bottom which is approximately 650 to 700 feet wide at the project site. The height of the gulch walls are approximately 150 feet. The defined stream bed is located approximately 350 feet from the project site. Even during flood conditions, the flood level does not reach the elevation of the proposed wells.

The Waikele drainage area encompasses almost 50 square miles. It extends from the Koolau Mountains and Waianae Mountains above Mililani to Pearl Harbor and includes Kipapa Stream, Waikele Stream and Waikakalaua Stream. The project site is located more than 6,000 feet from the shoreline of Pearl Harbor.

### Soil

The U.S. Soil Conservation Service classifies the soil on the project site as Haleiwa silty clay, 0 to 2 percent slopes (HeA). This soil occurs along drainageways and has a representative profile that includes a surface layer that is dark brown silty clay about 17 inches thick and a subsoil and substratum that is to a depth of no more than 5 feet that are dark brown and dark yellowish-brown silty clay. The soil is neutral to slightly acid.

The permeability of the soil is moderate and its runoff is very slow. The erosion hazard is very slight. This soil is suitable for agricultural use.

According to a representative of the landowner, the project site is overlain in some areas with soil settled from the mill washwater and trucked up to the site.

### Climate

The mean annual rainfall for the area is about 25 to 30 inches. Average monthly temperatures are mild ranging from about 72°F in the winter to about 78°F in the summer. Winds are predominantly from the northeast.

### Hydrology

The ground water, which is believed to be at elevation 17' or 18' msl, is expected to be of potable quality. The proposed exploratory wells will tap into this water bearing basalts of the Koolau basal aquifer in the Pearl Harbor basin.

Waikele Stream which flows past the project site is fed by a number of tributary streams from the Koolau and Waianae Mountains. Kipapa and Waikakalaua Streams are the major streams that feed Waikele Stream from the Koolaus, and Manuwaielolu, Huliwai and 'Ekahanui Streams feeds Waikele from the Waianaes. Springs, makai of the project site, feed the lower segments of Waikele Stream which eventually discharges into West Loch of Pearl Harbor over 6,000 feet from the project site.

#### **Flora and Fauna**

The predominant vegetation in the project area is guinea grass and a low density of scattered koa haole and a few keawe. There are no known rare or endangered plant species on the site.

Fauna is predominantly lowland birds and mammals typical of vacant or undeveloped lands near residential communities. The Short-Eared Owl or Pueo is listed as an endangered species on Oahu by the State of Hawaii Division of Forestry and Wildlife. They forage over open fields and forest habitat in both coastal and inland areas of Oahu. Although they may take flight over the area, none have been recorded specifically on the project site. No other rare or endangered species are known to inhabit the site.

#### **Air Quality**

The quality of the air in Waikele Gulch is very good. There are no major sources of air pollution in the immediate vicinity such as agricultural burning, dairy farms, manufacturing plants and incinerators. Auto emissions from vehicular traffic on the H-1 Freeway is not a factor.

#### **Sonic Ambiance**

The predominant source of noise in the area is the traffic on the H-1 Freeway overpass and the current construction activity on the eastern ledge of Waikele Gulch in Waikele.

#### **Archaeological, Historical and Cultural Resources**

There does not appear to be any archaeological sites on the property. In a letter from the State Historic Preservation Division, the agency indicated that there are no records on file which shows the presence of archaeological features on the property (see Appendix). Further, the site has undergone previous disturbance associated with the area sugar operations. Historically, there was a railroad track through the gulch but its route was on the eastern side of the stream. The project site would not disrupt the path of any access to traditional gathering sites. It is isolated and off to the side of the gulch; better access is located along the stream.

### **Natural Hazards**

The project site would be susceptible to brush fire and earthquakes, but these occurrences are rare and would have little impact on the proposed action. The drilling operation and pump tests will be relatively short-term and temporary.

Falling rocks from the adjacent gulch wall is a possibility at the site, but is not likely to reach the proposed well field. The contractor will be forewarned of the condition, and he or she will then determine if measures, such as a protective barrier, will be required.

Potential 100-year floods through Waikele Gulch is not expected to impact the well site. According to the Flood Insurance Rate Maps (FIRM), the boundary of Zone A Flood Hazard Area is more than 130 feet from the proposed drilling area (see Figure 7). The project site is located in Zones X and D of the FIRM which are areas determined to be outside of the 500-year flood plain and in which flood hazards are undetermined, respectively.

### **Visual**

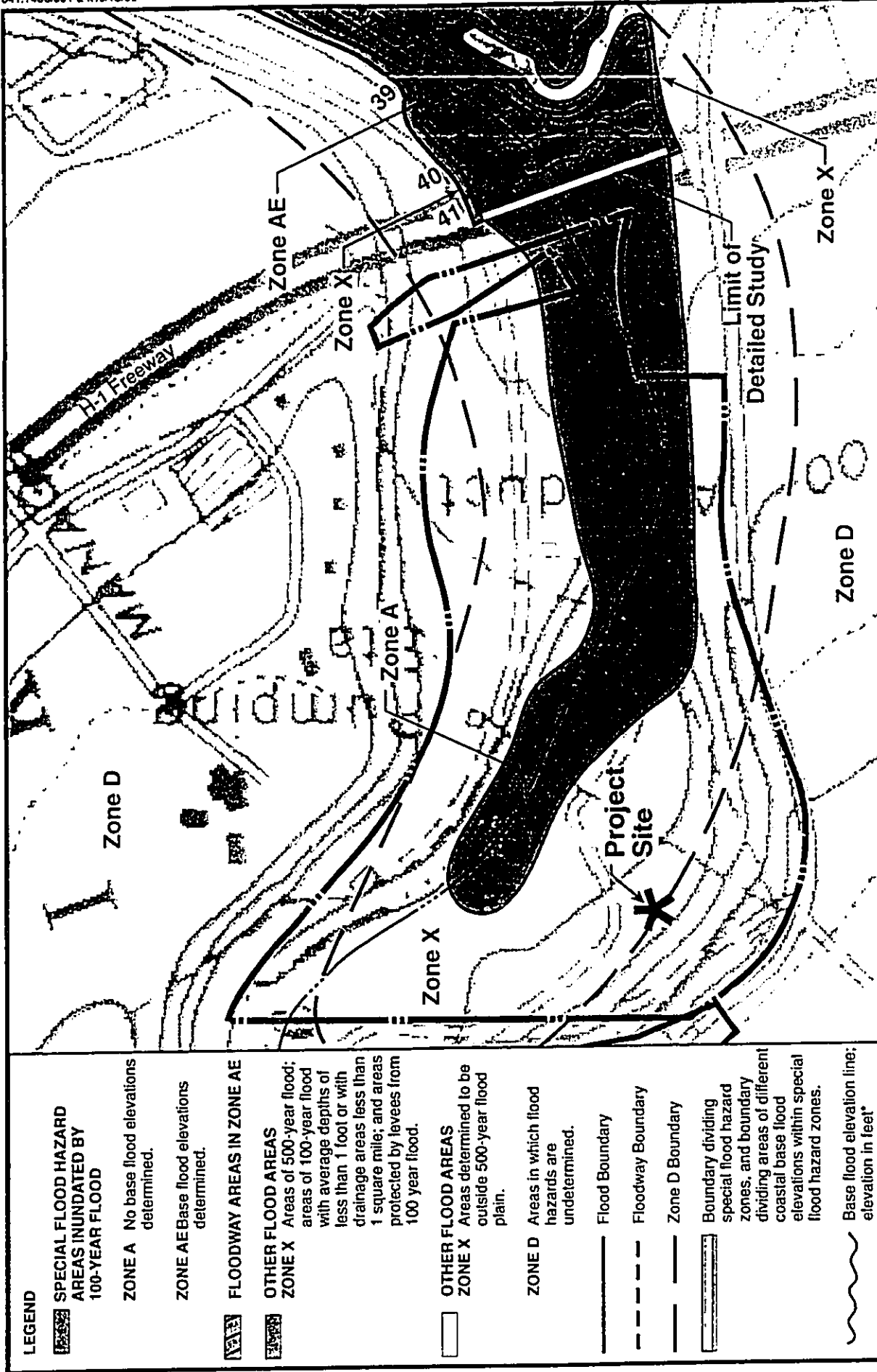
The most visible location of the project site from a public roadway is the H-1 Freeway overpass. The view, however, would not be readily apparent since the project site would be virtually lost in the overall scene of the gulch and would appear to the motorist or passengers as a short moment in time when passing over the gulch at high speed.

Views from Village Park and Waikele, particularly the projects that are on the rim above the gulch, are primarily focused over and across the ravine and not down into the gulch.






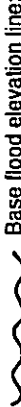
## **IV. SOCIO-ECONOMIC SETTING**

### **Socio-Economic Background of Region**

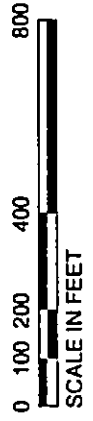
The Oahu Sugar Company used Waikele Gulch for various purposes in its previous sugar operations. It provided a good location for its well sites, transmission lines for water supply and mill water and access from the mill to the agricultural fields. Since the closing of the mill in 1995, the area has been in an abandoned state. Well battery (WP-1) is still in operation and will continue to supply water to the Waikele Golf Course. Two other well batteries have been abandoned or are inactive.



**LEGEND**

-  **SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD**
- ZONE A** No base flood elevations determined.
- ZONE AE** Base flood elevations determined.
- FLOODWAY AREAS IN ZONE AE**
- OTHER FLOOD AREAS**
- ZONE X** Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100 year flood.
- OTHER FLOOD AREAS**
- ZONE X** Areas determined to be outside 500-year flood plain.
- ZONE D** Areas in which flood hazards are undetermined.
- Flood Boundary** 
- Floodway Boundary** 
- Zone D Boundary** 
- Boundary dividing special flood hazard zones, and boundary dividing areas of different coastal base flood elevations within special flood hazard zones.** 
- Base flood elevation line; elevation in feet\*** 

\* Referenced to the National Geodetic Vertical Datum of 1929



**Figure 7**  
**FLOOD INSURANCE RATE MAP**  
Waiawa Exploratory Well  
Prepared for State DLNR  
Prepared by Belt Collins Hawaii • October 1999

Near the H-1 Freeway overpass, a sedimentation basin was constructed to accommodate runoff from the Waikele development. Upstream of the project site within the gulch is the U.S. Naval Reservation which is now abandoned.

Old Waipahu town is located makai of the H-1 Freeway and is now a sprawling suburban community. Additional residential communities are being developed to the west above the project site with Village Park being the first and Royal Kunia subsequently following. Waikele to the east is also being developed. These developments are part of the rapid growth occurring in the Leeward Oahu and Ewa regions.

#### **Economic Impacts Assessment**

Successful development of the wells will fulfill the need to improve the infrastructure to serve the planned growth in the Ewa region. With this growth will be economic benefits such as new jobs and income as well as increased government revenues from income, property and sales taxes.

#### **Community Issues**

The proposed action is not considered a land use that will generate social impacts. Its ultimate function is to provide a source for a utility that will serve land uses, such as residential, commercial, industrial, public facilities, etc. The proposed action, thus, is not expected to generate public land use issues.

Public concerns would be more on the project's effect on the natural environment. Such concerns would include the impact on the existing water resources of the area and the natural and cultural environment of the project site.

### **V. PUBLIC FACILITIES AND SERVICES**

#### **Circulation and Traffic**

Access to the well field is via an unimproved road within an existing easement from Waipahu Street. The road which extends approximately 4,650 feet to the site traverses over Oahu Sugar Company lands. About halfway to the site, it crosses beneath the H-1 Freeway overpass. Approximately 1,200 feet after traversing the H-1 Freeway, the access crosses the Waikele Stream via a concrete slab bridge with concrete abutments.

The proposed access to the well site will require permission to use the access for the well project.

### **Water, Sewer, Electricity and Telephone**

BWS water lines are located within the Waipahu Street right of way. Existing private sources of water are also located in the form of operating and abandoned wells in Waikele Gulch near the proposed well field. The proposed project is not expected to require water from the BWS for its operation. What little water that is required for personal use will be brought to the site by mobile units.

Electricity will be required to supply power to the pumping apparatus. A mobile generator powered by diesel fuel will supply the power. Cellular telephones are expected to provide communications for the construction crew, and portable toilets would be brought to the site to accommodate personal needs.

### **Solid Waste**

The debris from the site preparation stage will be removed from the property and hauled away to a greens recycling station. Very little solid waste is expected to be generated since the site is occupied predominantly by dry scattered vegetation.

Solid waste generated during operations will be collected and hauled away to a commercial land fill. Once the pump test is completed, all equipment and generated solid waste will be removed from the site. The wells will be capped and left for the next stage if they prove successful during the pump tests.

### **Public Services**

The project site is located within existing police, fire protection, and medical service areas. Access to the property in the event of an emergency will require coordination with the drilling contractor and landowner who keeps a lock on the access road at the Waipahu Street entrance.

## **VI. RELATIONSHIP TO PUBLIC LAND USE POLICIES**

### **State Land Use District**

The proposed well field is located in the Agricultural District and is a permitted use.



### **State Environmental Policies**

The proposed action is consistent with the State Environmental Policy (Chapter 344, HRS) relating to "safeguarding the State's unique natural environmental characteristics in a manner which will foster and promote the general welfare, create and maintain conditions under which humanity and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of the people of Hawaii."

Further, if the exploratory wells proves successful and are developed into production wells, they will supplement the existing water system in the Leeward Oahu and Ewa regions and open up opportunities for economic growth and provide improvements in the quality of life for the residents of Hawaii.

### **Central Oahu Development Plan**

The Development Plan designates Waikele Gulch between the H-1 Freeway and the military reservation as Agriculture.

### **City and County Land Use Ordinance**

The Land Use Ordinance designates the property as AG-1 Agriculture. The proposed action is a permitted use in this zoning district.

### **Special Management Area**

The mauka boundary of the Special Management Area (SMA) is along Waipahu Street. The project site is located outside of the SMA and, therefore, is not subject to the SMA Rules and Regulations of the City and County of Honolulu.

### **Required Permits and Approvals and Their Status**

In addition to this document which is being prepared to comply with the provisions of Chapter 343, Hawaii Revised Statutes, the proposed action will require a grading permit from the City Department of Planning and Permitting and a Well Construction Permit and Water Use Permit from the State DLNR, CWRM. Finally, a NPDES Permit will be required for discharging pump test waters into Waikele Stream. Applications for these permits will be submitted to the reviewing agencies after the EA procedures are completed.

## VII. SUMMARY OF MAJOR IMPACTS

### Construction Impacts

During site preparation, well drilling, casing and pump testing, the proposed action will generate dust and noise that could affect the neighboring residents in Waikele, Village Park and Waipahu, depending on the time of the day and condition of the winds. The large open areas surrounding the site and distance to these residential areas would help to dissipate the effect. The nearest homes are located above the gulch walls in Village Park more than 400 feet away.

Construction of the project would not impact traffic except when the drilling rigs and equipment are first brought to the site and later removed and transported back to their base yard. The transportation of these equipment will involve slow moving vehicles which may affect traffic along their route.

### Operational Impacts

Drilling and pump test operations will generate noise during the projected five month work schedule for each well. The drilling operation may result in a higher noise level than the test pump operations. The overall level of noise, however, will not exceed the State restrictions on maximum levels at residential property lines.

During the pump tests, water from the well will be discharged into the nearby Waikele Stream. As part of best management practices, the water will be conveyed via a pipeline to avoid soil erosion along its route and turbidity in the receiving waters. The quantity could reach as much as 1,000 gallons per minute, thus resulting in a temporary increase in the stream flow. The increase in flow, however, is expected to be within the normal range of peak flows that occur and would not result in any flooding or adverse impact to downstream properties.

The quality of the discharge water is expected to be of potable quality. The quality of the stream water is expected to be lower than the quality of the well water. Notably, the stream flows from a drainage basin that includes large areas of agricultural lands and residential uses. These uses generate agricultural and urban runoff, respectively.

Drawing groundwater from the aquifer during the pump tests is not expected to impact the flow of Waikele Stream. The stream bed elevation is about 35 feet msl and does not intersect the basal lens which has a local head of 17 or 18 feet in the area. This difference in elevation should

indicate that there would not be any seepage of the groundwater into the stream.

The flow in the springs makai of the project sites, however, may be affected by pumpage. The spring flow has increased in recent years as a result of reduced pumpage from the Oahu Sugar Company wells. The pumpage from the proposed wells would comprise a small fraction of the water formerly used for sugar irrigation.

It is expected that pumpage from the proposed exploratory wells will have minimal or no measurable effect on other wells in the vicinity. In an environmental assessment for the fourth well in the Waipahu II Wells project, it was estimated that the drawdown from the fourth well on existing wells would be less than 0.1 foot for sustained operations. Existing wells in the vicinity include the Kunia III Wells and Waipahu I Wells which are at least 2,500 feet away. The proposed exploratory wells in Waikele Gulch will be approximately 2,500 to 3,000 feet away and are expected to produce similar effects. In any event, during the pump tests, existing wells in the area will be monitored.

#### VIII. PROPOSED MITIGATION MEASURES

During the site preparation stage, the contractor will work only during normal daylight hours. This would remove the impact of noise during the night hours and lights that might glare into the adjacent residential neighborhoods.

Fugitive dust is not expected to impact any homes. If winds were to carry fugitive dust to adjacent properties, it would be up or down the gulch where no nearby residences are present.

Best management practices will be employed, where necessary, to mitigate potential discharge of pollutants into nearby surface waters. Such practices would include the use of earth berms or other silt containment measures to prevent surface runoff from discharging into Waikele Stream. Similar measures would also be used to prevent the release of petroleum products or other potential hazardous material from the construction or operational activities from entering the nearby stream. Regular inspection of vehicles and storage areas will occur to confirm there are no leaks that would potentially affect water quality. Absorbent pads or other containment devices will be available and used, as required, at fuel transfer points during fueling operations.

No mitigation measures will be required on traffic, however slow moving construction vehicles transporting heavy equipment to and from the site will be scheduled to off-peak hours.

Water discharged to Waikele Stream from pump tests will be at potable quality. A NPDES Permit will be obtained from the State Department of Health prior to any discharge into the stream. The permit application will include a Best Management Practices Plan and a Water Quality Monitoring Plan both of which will provide information on monitoring and controlling potential pollutants into the State waters.

#### **IX. ALTERNATIVES CONSIDERED**

##### **No Action**

An alternative to the proposed action is to refrain from proceeding with the new well field. Although this option was available, it was not considered. The proposed action is necessary to meet the need for additional sources of water for the Leeward Oahu and Ewa region.

##### **Alternative Sites**

The selection of the Waikele Gulch site for the new well field is the result of a review of three other sites in the Waiawa area. All three sites were assessed for accessibility, availability of supporting infrastructure, access to existing water systems, site characteristics and, of course, its potential as a source of water.

Two sites in the Waiawa uplands east of the H-2 Freeway were deemed unfeasible at this time due to the lack of an access road, transmission pipe line and electrical power. This site is in a remote location with little existing support infrastructure.

The third site is located in the vicinity of the Waiawa Correctional Facility. This site was also deemed unfeasible at this time due to the lack of support infrastructure. Moreover, the use of the water would have been limited to educational purposes until the Year 2015, as specified in a quitclaim deed to the property.

The selected Waikele Gulch site presented itself as the most feasible option. It has an existing access and is located in the vicinity of BWS's existing water transmission system and service area. Furthermore, water quality and quantity information shows that potable ground water in the area is very good.

### **Alternative Methodology**

The drilling contractor will determine the method for drilling the exploratory well. Cable tooling is a drilling method that employs an impact procedure in the well hole. It utilizes a sharp bit on a cable that is repeatedly raised and dropped in the hole to cut a depth. The other method, rotary drilling, utilizes a drill bit that bores a hole to reach depth. The contractor will usually make a determination after inspecting soil and geology reports on the site.

## **X. DETERMINATION**

This Final Environmental Assessment demonstrates that the proposed action will not have significant adverse effects on the environment and that an Environmental Impact Statement is not warranted. A Finding of No Significant Impact, therefore, is determined for this project.

## **XI. FINDINGS AND REASONS SUPPORTING THE DETERMINATION**

The following findings and reasons demonstrate that the proposed action will not have significant adverse impacts on the environment and, consequently, support the above determination.

- o The proposed action will occur on a site that has already been disturbed. Its open location would not interfere with any access to traditional gathering sites of important cultural resources. The exploration project would involve the long-term use of water only if pump tests show that an adequate and sustainable supply is available.
- o The proposed action will not curtail the range of beneficial uses of the environment. The project site is currently vacant and has not been designated by the State or City for any other long-range economic use.
- o As provided in Section VI of this document, the proposed action is consistent with the State's long-range environmental policies and guidelines (Chapter 344, HRS).
- o The proposed action is expected to have a beneficial effect on the economy. Its construction stage will generate work and personal income and stir spending throughout the county and state. Its operational stage would also benefit the local economy as well as supplement an existing utility in a growing community.

- o The equipment used for site preparation, well drilling and pump testing will be using petroleum products that could leak from their engines or hydraulic systems. The construction contractor, however, will be required to maintain his or her equipment in good working order, monitor for leaks and employ safety precautions. If there is a petroleum spill, the contractor will be responsible for all necessary remedial actions and cleanups. The public health would not be jeopardized.
- o The proposed action will not involve substantial secondary impacts involving dramatic population increases. If the exploratory wells proves successful, the new source will supplement the existing water system that currently serves the Leeward Oahu and Ewa regions.
- o The proposed action calls for minor site improvements in a small area and will not change the general character of the gulch land.
- o No other plans by the proposing agency are being contemplated for developing additional wells in the project vicinity.
- o The project action will be located in a dry and sparsely vegetated area and is not expected to adversely affect any known rare, threatened, or endangered flora or fauna species.
- o The anticipated impacts associated with project construction and operations, such as erosion, sedimentation, fugitive dust and noise, are short-term and temporary. They will be minimized or prevented from occurring by implementation of mitigative measures in accordance with applicable federal, state and city laws, statutes, ordinances, and rules and regulations.
- o The project site is not located in a hazard-prone area. Although the property is situated in a gulch, the well field will not be subject to a 100-year flood.
- o The project site is not included in any public document as a scenic resource.
- o The proposed action, which is short-term and temporary, will not require substantial energy consumption.

**XII. COMMENTS FROM AND RESPONSES TO AGENCIES AND PRIVATE ORGANIZATIONS**

A copy of the Draft Environmental Assessment for this project was transmitted to the following agencies and private organizations for review and comment. The parties that responded are indicated below and a copy of their correspondence with a response from the proposing agency is attached to this section. Comments that were substantive and applicable were incorporated into the Final Environmental Assessment.

<u>Federal Agencies</u>	<u>Agencies Responded</u>	<u>Agencies Responding w/No Comment</u>	<u>Agency Letters and Responses Attached in this Section</u>
Department of the Navy Fish and Wildlife Service	X		X
U.S. Army Corps of Engineers	X		X
<u>State Agencies</u>			
Dept. of Business, Economic Development & Tourism		X	X
Dept. of Health	X		X
DLNR Land Division			
DLNR Historic Preservation Div.	X		X
Dept. of Transportation	X		X
Office of Environmental Quality Control	X		X
Office of Hawaiian Affairs			
<u>City &amp; County of Honolulu</u>			
Dept. of Design & Construction			
Dept. of Environmental Services	X		X
Dept. of Facility Maintenance		X	X
Dept. of Planning & Permitting		X	X
Dept. of Transportation Services	X		X
Fire Department	X		X
<u>Utilities</u>			
GTE Hawaiian Tel	X		X
Board of Water Supply	X		X
Hawaiian Electric Company		X	X

<u>Private Owners</u>	<u>Agencies Responded</u>	<u>Agencies Responding w/No Comment</u>	<u>Agency Letters and Responses Attached in this Section</u>
Amfact Land Company, Ltd. Waiahole Irrigation Company Village Park Community Assoc.	X		X





DEPARTMENT OF THE NAVY  
COMMANDER  
NAVY REGION HAWAII  
517 RUSSELL AVENUE  
PEARL HARBOR, HAWAII 96860-4894

RECEIVED

1999 SEP -9 P 2: 07

IN REPLY REFER TO:

BELT COLLINS HAWAII

5090

Ser N465/10187

September 3, 1999

Mr. Glen T. Koyama  
Belt Collins Hawaii Ltd.  
680 Ala Moana Boulevard, First Floor  
Honolulu, Hawaii 96813-5406

Dear Mr. Koyama:

Subject: Draft Environmental Assessment, Proposed Well Field, Waikele Oahu, Hawaii

Thank you for your letter of August 5, 1999 affording the Navy an opportunity to provide comment on the draft environmental assessment (DEA). Our comments are enclosed for your consideration.

If we can be of further assistance, please contact Mr. Randy Miyashiro, Regional Environmental Coordinator for Natural/Cultural Resources and NEPA at 471-1171, extension 233.

Sincerely,

R.M. WAKUMOTO

Director

Regional Environmental Department

By direction of

Commander, Navy Region Hawaii

Copy to:  
CINCPACFLT (N465)

Comments from Commander, Navy Region Hawaii

#	Page	Section/ Para. No.	Comment	Action
1	5	2 <sup>nd</sup>	<p>States that if the first well is unsuccessful that the project site will be abandoned. If the second or third well prove to be unsuccessful, will completion of the drilling, casing and pump testing continue for subsequent wells?</p> <p>Should clarify that all wells will be outfitted and converted to production wells only if testing proves successful.</p>	
2	5	Well Drilling	Insert "(MSL)" to identify first usage of the acronym for mean seal level.	
3	12	1 <sup>st</sup> para. 2 <sup>nd</sup> sent.	Change to read from "approximately upstream 2,800 feet..." to "approximately 2,800 feet upstream..."	
4	12	2 <sup>nd</sup> para. 2 <sup>nd</sup> sent.	Change the word "be tested" to "be found" or "test positive for"	
5	13	Climate	Section only specifies rainfall. Should add temperature range or average and normal wind direction.	

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621  
HONOLULU, HAWAII 96809

REF:LD/WL-EK

OCT 26 1999

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

Mr. R. M. Wakumoto,  
Regional Environmental Department  
Commander, Navy Region Hawaii  
517 Russell Avenue  
Pearl Harbor, Hawaii 96860-4884

Dear Mr. Wakumoto:

**Draft Environmental Assessment  
Proposed Exploratory Wells at Waikele Gulch  
Ewa, Oahu, Hawaii, TMK 9-4-02: 8**


Thank you for your letter of September 9, 1999, commenting on the Draft Environmental Assessment (DEA) for the proposed exploratory well field at Waikele Gulch.

If the first well is successful, but the second is unsuccessful, the State will decide whether to drill a third well or abandon the site entirely depending on pump test results of the second well. The decision to drill additional wells thereafter would be made after each well's pump test. When four wells prove successful, they would all be outfitted and converted to production wells as part of the next phase of the project.

The remainder of your comments relates to textual changes and more information on the area's climate. We will make the changes as suggested.

Should you have any questions or comments, please contact Mr. Andrew Monden, Chief Engineer, at 587-0230.

Aloha,

  
TIMOTHY E. JOHNS

c: Glen T. Koyama, Belt Collins Hawaii



DEPARTMENT OF THE ARMY  
U S ARMY ENGINEER DISTRICT, HONOLULU  
FT. SHAFTER, HAWAII 96858-5440

REPLY TO  
ATTENTION OF

August 19, 1999

RECEIVED

1999 AUG 20 P 1:12

BELT COLLINS HAWAII

Civil Works Technical Branch

Mr. Glen T. Koyama  
Belt Collins  
680 Ala Moana Boulevard, First Floor  
Honolulu, Hawaii 96813

Dear Mr. Koyama:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (DEA) for the Proposed Exploratory Wells at Waikele Gulch, Ewa, Oahu (TMK 9-4-2:8). The following comments are provided in accordance with Corps of Engineers authorities to provide flood hazard information and to issue Department of the Army (DA) permits.

a. Based on the information provided, a DA permit will not be required for the project.

b. The flood hazard information provided on page 15 of the DEA is correct.

Sincerely,

James K. Hatashima  
Acting Chief, Civil Works  
Technical Branch

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621  
HONOLULU, HAWAII 96809

REF:LD/WL-EK

OCT 26 1999

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

Mr. James K. Hatashima, Acting Chief  
Civil Works Technical Branch  
U.S. Army Engineer District, Honolulu  
Ft. Shafter, Hawaii 96858-5440

Dear Mr. Hatashima:

**Draft Environmental Assessment  
Proposed Exploratory Wells at Waikele Gulch  
Ewa, Oahu, Hawaii, TMK 9-4-02: 8**

Thank you for your letter of August 19, 1999, commenting on the Draft Environmental Assessment (DEA) for the proposed exploratory well field at Waikele Gulch.

We acknowledge that a Department of the Army Permit will not be required for the project and that you concur with the flood information provided in the DEA.

Should you have any questions or comments, please contact Mr. Andrew Monden, Chief Engineer at 587-0230.

Aloha,

  
TIMOTHY E. JOHNS

c: Glen T. Koyama, Belt Collins Hawaii



**DEPARTMENT OF BUSINESS,  
ECONOMIC DEVELOPMENT & TOURISM**

**BENJAMIN J. CAYETANO**  
GOVERNOR  
**SEIJI F. NAYA, Ph.D.**  
DIRECTOR  
**BRADLEY J. MOSSMAN**  
DEPUTY DIRECTOR  
**DAVID W. BLANE**  
DIRECTOR, OFFICE OF PLANNING

**OFFICE OF PLANNING**

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813  
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-2846  
Fax: (808) 587-2824

Ref. No. P-8248

August 25, 1999

RECEIVED

1999 AUG 31 P 1:25

BELT COLLINS HAWAII

Mr. Glen T. Koyama  
Belt Collins Hawaii Ltd.  
680 Ala Moana Boulevard  
First Floor  
Honolulu, Hawaii 96813-5406

Dear Mr. Koyama:

Subject: Draft Environmental Assessment (DEA)  
Proposed Exploratory Wells at Waikele Gulch, Ewa, Oahu

We have no comments on the subject DEA. For your information, the Hawaii Coastal Zone Management (CZM) Program is no longer routinely reviewing these reports.

Sincerely,

David W. Blane  
Director  
Office of Planning

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621  
HONOLULU, HAWAII 96809

REF:LD/WL-EK

OCT 26 1999

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

TO: Mr. David W. Blane, Director  
Office of Planning

FROM: Timothy E. Johns, Chairperson *Timothy E. Johns*

SUBJECT: Draft Environmental Assessment Proposed Exploratory Wells at Waikele  
Gulch, Ewa, Oahu, Hawaii, TMK 9-4-02: 8

Thank you for your letter of August 25, 1999, commenting on the Draft Environmental Assessment (DEA) for the proposed exploratory well field at Waikele Gulch.

We acknowledge that you have no comments to offer at this time.

Should you have any questions or comments, please contact Mr. Andrew Monden, Chief Engineer at 587-0230.

c: Glen T. Koyama, Belt Collins Hawaii

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



RECEIVED

1999 SEP 15 P 1:20

BRUCE S. ANDERSON, Ph.D., M.P.H.  
DIRECTOR OF HEALTH

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. BOX 3378  
HONOLULU, HAWAII 96801

In reply, please refer to:  
File:

September 10, 1999

99-181/epo

Mr. Glen T. Koyama  
Belt Collins Hawaii Ltd.  
680 Ala Moana Boulevard,  
First Floor  
Honolulu, Hawaii 96813-5406

Dear Mr. Koyama:

Subject: Draft Environmental Assessment (DEA)  
Proposed Exploratory Wells at Waikele Gulch  
Ewa, Oahu  
TMK: 9-4-2: 8

Thank you for allowing us to review and comment on the subject project. We have the following comments to offer:

Safe Drinking Water

1. Federal and state regulations define a public water system as a system that serves 25 or more individuals at least 60 days per year or has at least 15 service connections. All public water system owners and operators are required to comply with Hawaii Administrative Rules, Title 11, Chapter 20, Rules Relating to Potable Water Systems.
2. Section 11-20-30 requires that the Director approve new or substantially modified distribution systems for public water systems. However, if the water system is under the jurisdiction of the County of Honolulu, the Honolulu Board of Water Supply will be responsible for the review and approval of the plans.
3. Page 5, 2<sup>nd</sup> paragraph, states "...If the first well proves successful, the remaining three wells will be drilled, cased and pump tested. All four wells will then be outfitted and converted into permanent production wells..." Section 11-20-29 of Chapter 20 requires that all new sources of potable water serving a public water system be



Mr. Glen T. Koyama  
September 10, 1999  
Page 2

99-181/epo

approved by the Director of Health prior to its use. Such an approval is based primarily upon the submission of a satisfactory engineering report that addresses the requirements set in Section 11-20-29.

4. The engineering report must identify all potential sources of contamination and evaluate alternative control measures which could be implemented to reduce or eliminate the potential for contamination, including treatment of the water source. In addition, water quality analyses, performed by a laboratory certified in the State of Hawaii, must be submitted as part of the report to demonstrate compliance with all drinking water standards. The Director upon his review of the information submitted may require additional tests.

If you should have any questions regarding these comments, please contact Ms. Queenie Komori of the Safe Drinking Water Branch, Engineering Section, at 586-4258.

Groundwater Concerns

The proposed well field is within the vicinity of the Waipahu I and Waipahu II wells. Both of these wells are currently employing activated charcoal treatment for EDB and TCP contaminants. The Waipahu II well also is being treated for TCE. The Hoaeae wells in the same general area show trace amounts of TCP contamination below quantifiable levels.

The contractor is already aware of pesticide contamination in this area. It is likely that the exploratory wells will also reveal contaminants that will have to be treated if they are to be used for drinking water purposes.

If there are any questions on these comments, please contact Mr. Glen Fukunaga of the Environmental Planning office at 586-4337.

Sincerely,



GARY GILL  
Deputy Director for  
Environmental Health

c: SDWB

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621  
HONOLULU, HAWAII 96809

REF:LD/WL-EK

OCT 26 1999

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

TO: Mr. Gary Gill, Deputy Director  
Department of Health

FROM: Timothy E. Johns, Chairperson *Timothy E. Johns*

SUBJECT: Draft Environmental Assessment Proposed Exploratory Wells at Waikele  
Gulch, Ewa, Oahu, Hawaii, TMK 9-4-02: 8

Thank you for your letter of September 10, 1999, commenting on the Draft Environmental Assessment (DEA) for the proposed exploratory well field at Waikele Gulch.

Thank you also for the information on public water systems and distribution systems provided in your letter. The proposed action, however, does not include that phase of the project until the exploratory wells prove successful. When that phase does occur, applicable rules and regulations pertaining to production wells and distribution systems for public water systems will be met by the proposing agency. A separate Environmental Assessment will be prepared for that aspect of the project.

Results from water quality analyses will be submitted to the Department of Health (DOH) for review. As part of the exploratory pump tests, the wells will be tested for potential contamination. If the results are positive, necessary control measures to reduce or eliminate the contamination, including treatment of the water source, will be implemented.

We are aware of the conditions of nearby wells and will be conducting appropriate tests to assess the quality of water in the proposed exploratory wells. Further, we will work with DOH to implement appropriate control measures during the production stage, if necessary, so water quality meets all drinking water standards.

Should you have any questions or comments, please contact Mr. Andrew Monden, Chief Engineer at 587-0230.

c: Glen T. Koyama, Belt Collins Hawaii

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



RECEIVED

1999 AUG 31 P 1:24

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES  
JANET E. KAWELO

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION  
Kakuhihewa Building, Room 555  
601 Kamohala Boulevard  
Kapolei, Hawaii 98707

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND  
STATE PARKS  
WATER RESOURCE MANAGEMENT

August 25, 1999

Glen T. Koyama  
Belt Collins Hawaii Ltd  
680 Ala Moana Boulevard, 1st Floor  
Honolulu, Hawaii 96813-5406

LOG NO: 24000  
DOC NO: 9908EJ19

Dear Mr. Koyama:

**SUBJECT: Chapter 6E-8 Historic Preservation Review - Draft Environmental Assessment (DEA) for the Proposed DLNR Exploratory Well at Waikele Gulch  
Waikele, 'Ewa, O'ahu  
TMK: 9-4-002:008**

Thank you for the opportunity to provide comment on the DEA for the proposed exploratory well in Waikele Gulch. We commented during the pre-assessment consultation phase that a review of our records shows that there are no known historic sites at the project location. Our comments that we believe that this project will have "no effect" on significant historic sites is summarized in Section III, Archaeological, Historical and Cultural Resources and is produced in its entirety in the Appendix.

If you have any questions please call Elaine Jourdane at 692-8027.

Aloha,

Don Hibbard, Administrator  
Historic Preservation Division

EJ:jk

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
REF:LD/WL-EK  
P. O. BOX 621  
HONOLULU, HAWAII 96809

OCT 26 1999

TO: Dr. Don Hibbard, Administrator  
Historic Preservation Division

FROM: Timothy E. Johns, Chairperson *Timothy E. Johns*

SUBJECT: Draft Environmental Assessment Proposed Exploratory Wells at Waikele  
Gulch, Ewa, Oahu, Hawaii, TMK 9-4-02: 8

Thank you for your letter of August 25, 1999, commenting on the Draft Environmental Assessment (DEA) for the proposed exploratory well field at Waikele Gulch.

We acknowledge that, according to your records, there are no known historic sites on the property and that you believe the proposed action will not have an effect on significant historic sites.

Should you have any questions or comments, please contact Mr. Andrew Monden, Chief Engineer at 587-0230.

c: Glen T. Koyama, Belt Collins Hawaii

BENJAMIN J. CAYETANO  
GOVERNOR



RECEIVED

KAZU HAYASHIDA  
DIRECTOR

DEPUTY DIRECTORS  
BRIAN K. MINA'I  
GLENN M. OKIMOTO

1999 SEP -1 P 1:59

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

BELT COLLINS HAWAII

IN REPLY REFER TO:

STP 8.9206

August 27, 1999

Mr. Glen T. Koyama  
Belt Collins Hawaii LTD.  
680 Ala Moana Boulevard, First Floor  
Honolulu, Hawaii 96813-5406

Dear Mr. Koyama:

Subject: Waikele Gulch Exploratory Wells  
Draft Environmental Assessment (DEA)  
TMK: 9-4-02: 08

Thank you for your transmittal requesting our review of the subject project.

The proposal will not impact our State transportation facilities.

We appreciate the opportunity to provide comments.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Kazu Hayashida".

KAZU HAYASHIDA  
Director of Transportation

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621  
HONOLULU, HAWAII 96809

REF:LD/WL-EK

OCT 26 1999

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

TO: Honorable Kazu Hayashida, Director  
Department of Transportation

FROM: Timothy E. Johns, Chairperson *Timothy E. Johns*

SUBJECT: Draft Environmental Assessment Proposed Exploratory Wells at Waikele  
Gulch, Ewa, Oahu, Hawaii, TMK 9-4-02: 8

Thank you for your letter of August 27, 1999, commenting on the Draft Environmental Assessment (DEA) for the proposed exploratory well field at Waikele Gulch.

We acknowledge your assessment that the proposed project will not impact State transportation facilities.

Should you have any questions or comments, please contact Mr. Andrew Monden, Chief Engineer at 587-0230.

c: Glen T. Koyama, Belt Collins Hawaii

BENJAMIN J. CAYETANO  
GOVERNOR



RECEIVED

GENEVIEVE SALMONSON  
DIRECTOR

AUG 12 AM 11:31

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

236 SOUTH BERETANIA STREET  
SUITE 702  
HONOLULU, HAWAII 96813  
TELEPHONE (808) 588-4188  
FACSIMILE (808) 588-4188

August 10, 1999

Mr. Tim Johns, Chair  
Department of Land and Natural Resources  
P.O. Box 621  
Honolulu, Hawaii 96809

Dear Mr. Johns:

Subject: Draft Environmental Assessment for the Proposed Waikele  
Well Fields, Oahu

Thank you for the opportunity to review the subject document. We  
have the following questions and comments.

1. Orientation Maps

Please provide maps with the appropriate scale and coverage to  
analyze the aquifer or hydrologic unit that show the  
following:

a) Hydrologic information: aquifer or hydrologic unit  
boundary, known or assumed groundwater flowpaths, and known or  
assumed water level contours.

b) Contamination information: Points or regions of known  
contamination, points of potential contamination (landfills,  
individual wastewater disposal systems, hazardous waste sites,  
dry wells and injection wells), known or assumed chloride  
levels at specified depths in relation to nearest or adjacent  
wells, and likely wellhead protection area for the proposed  
well.

2. Aquifer or Hydrologic Unit Status

Please describe the aquifer or hydrologic unit status  
including the following:

- \* Sustainable yields or other measures of water  
availability
- \* Authorized water use by the Commission on Water Resource  
Management

Mr. Johns  
Page 2

\* Data table presenting the following information as appropriate

- Current water use totals, including subtotals for individual users
- Current installed capacity including subtotals for individual wells and/or groups of wells.
- Pending installed capacity and/or use for the proposed well and subtotals for individual wells and/or groups of wells within the aquifer

### 3. Contamination Analysis and Vulnerability Assessment

The proposed well is within one mile of the Waipahu II Wells, which currently show traces of chemical contaminants EDB and TCP. Please disclose the contamination problems in the aquifer or hydrologic unit including but not limited to saltwater intrusion, turbidity, heavy metals, inorganic and organic chemicals, microbiological agents, water quality parameters (such as pH, alkalinity, calcium, conductivity and temperature), and radioactivity. If contamination exists, the sources and duration of the contamination should be listed. Water quality data from nearby wells should be presented as well as any anticipated need for treatment or filtering systems. Discuss past and existing land uses within the likely wellhead protection area and the potential for future contamination from those uses.

The potential for contamination should be assessed based on geologic and hydrologic considerations. Although sources of contamination might be presently absent, vulnerability to contamination might be great, if contamination sources occur in the future, due to factors such as high rates of infiltration or thin, protective soil horizons.

Any hazardous materials used and/or produced during drilling and treatment should be described. The method of handling these hazardous materials should also be disclosed.

### 4. Hydrologic Impact Analysis

The flow in the springs makai of the project sites may be affected by the water pumpage. Describe the associated watershed and recharge area and discuss the potential effects the well development may have on affiliated groundwater and surface water (e.g., streams, springs and wetlands). Relevant hydrologic, physical, chemical, and biological data for potentially affected waters should be included. If potential impacts exist, a monitoring program for the affected waters should be included.



5. **Financial and Institutional Arrangements**

In some instances, a well is developed by private financing, the transfer of public lands to government or private developers, or in return for a water allocation credit to supply an urban development. The EA should include a full discussion of any institutional, financial or land use arrangements or commitments related to developing the well and delivering water to end users.

These arrangements may include the formation of public utility companies and subsequent rate-setting, the establishment of county water commitments, the co-funding of state or county water system development, an executive order or other set-aside of state lands, and purchase of land or easements by public entities.

Any or all of these arrangements and all permits or governmental approvals required to fulfill these commitments should be listed.

6. **Watershed and Land Use Analysis**

A discussion of how waters from the well will be used, and an analysis of how the proposed well development may affect land and water uses on the island and in the region. The analysis should include a discussion of the following (published materials may be referenced):

- \* County General, Development, and/or Community Plans
- \* Plans for future water development within the aquifer
- \* Historical water supply and demand figures for the region
- \* Any secondary or cumulative impacts caused by promoting land uses that alter the hydrology of the source and/or end-use area
- \* An assessment of the well's impact on the land owners, water users including farmers and kuleana residents in the region

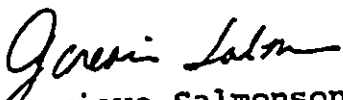
7. **Alternative Analysis**

Please provide a list of alternatives to new groundwater development and discuss their related costs and benefits. The list should include but not be limited to alternative locations, wastewater reuse, rainfall catchment, existing potable and non-potable water supplies, water conservation and Demand Side Management or Integrated Resources Planning. Show why developing a new source is more cost efficient than water conservation programs (slow-flow and low-flush retrofits, leak detection, etc.).

Mr. Johns  
Page 4

Should you have any questions, please call Jeyan Thirugnanam at  
586-4185.

Sincerely,

  
Genevieve Salmonson  
Director

c: Land Division  
Belt Collins

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621  
HONOLULU, HAWAII 96809

REF:LD/WL-EK

OCT 26 1999

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

TO: Honorable Genevieve Salmonson, Director  
Office of Environmental Quality Control

FROM: Timothy E. Johns, Chairperson *Timothy E. Johns*

SUBJECT: Draft Environmental Assessment Proposed Exploratory Wells at  
Waikele Gulch, Ewa, Oahu, Hawaii, TMK 9-4-02: 8

Thank you for your letter of August 10, 1999, commenting on the Draft Environmental Assessment for the proposed exploratory well field at Waikele Gulch.

Please note that the proposed project consist of the drilling, casing and testing of up to four (4) exploratory wells at Waikele Gulch. The purpose of the project is to determine the quantity and quality of the groundwater source; and impacts to the quality or yield of nearby existing wells. One or more of the Oahu Sugar Company's irrigation wells and the Honolulu Board of Water Supply's Waipahu IV wells will be monitored during the pump testing. Also, water samples from the exploratory wells will be collected and tested for drinking water certification.

Should the exploratory wells prove suitable for development into production wells, a second environmental assessment for the production well will be prepared in accordance with your "Guidelines for Assessing Water Well Development Projects" dated May 1998.

The anticipated impacts of the proposed exploratory wells are limited to the relatively short-term disturbances that would be created by the well's drilling and pump testing.

Should you have any questions or comments, please contact Mr. Andrew Monden, Chief Engineer at 587-0230.

c: Glen T. Koyama, Belt Collins Hawaii

DEPARTMENT OF ENVIRONMENTAL SERVICES  
**CITY AND COUNTY OF HONOLULU**  
650 SOUTH KING STREET, 3RD FLOOR • HONOLULU, HAWAII 96813  
PHONE: (808) 527-6663 • FAX: (808) 527-6875

RECEIVED

1999 AUG 19 P 1:18

BELT COLLINS HAWAII KENNETH E. SPRAGUE, P.E., Ph.D.  
Director

BARRY FUKUNAGA  
Deputy Director

ENV 99-95

JEREMY HARRIS  
Mayor



AUG 18 1999

Mr. Glen T. Koyama  
Belt Collins Hawaii Ltd.  
680 Ala Moana Blvd.  
Honolulu, HI 96813-5406

Dear Mr. Koyama:

Subject: Draft Environmental Assessment (DEA)  
Exploratory Wells At Waikele Gulch  
TMK: 9-4-02: 8

We have reviewed the subject DEA and have the following comments:

1. The DEA should address best management practices (BMPs) to mitigate discharge of pollutants during construction.
2. Effluent discharge permits from the State Department of Health and the City Department of Environmental Services may be required.

Should you have any questions, please contact Mr. Alex Ho, Environmental Engineer, at 523-4150.

Sincerely,

  
KENNETH E. SPRAGUE  
Director

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621  
HONOLULU, HAWAII 96809

REF:LD/WL-EK

OCT 26 1999

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

Mr. Kenneth E. Sprague, Director  
Department of Environmental Services  
City and County of Honolulu  
650 South King Street, 3rd Floor  
Honolulu, Hawaii 96813

Dear Mr. Sprague:

**Draft Environmental Assessment  
Proposed Exploratory Wells at Waikele Gulch  
Ewa, Oahu, Hawaii, TMK 9-4-02: 8**

Thank you for your letter of August 18, 1999, commenting on the Draft Environmental Assessment (DEA) for the proposed exploratory well field at Waikele Gulch.

The Final EA will provide further elaboration on best management practices that could be employed to mitigate discharge of pollutants during construction.

If required, effluent discharge permits from the State Department of Health and City Department of Environmental Services will be obtained.

Should you have any questions or comments, please contact Mr. Andrew Monden, Chief Engineer at 587-0230.

Aloha,

A handwritten signature in cursive script that reads "Timothy E. Johns".

TIMOTHY E. JOHNS

c: Glen T. Koyama, Belt Collins Hawaii



RECEIVED  
DEPARTMENT OF FACILITY MAINTENANCE

BELT COLLINS

AUG 9 9 04 AM '99

August 5, 1999  
9741.0200/99P-297

Mr. Ross S. Sasamura  
Director and Chief Engineer  
Department of Facility Maintenance  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Sasamura:

**Draft Environmental Assessment  
Proposed Exploratory Wells at Waikele Gulch  
Ewa, Oahu, Hawaii  
TMK 9-4-02: 8**

On behalf of the Department of Land and Natural Resources, State of Hawaii, we respectfully request your review and comment on the enclosed Draft Environmental Assessment (DEA) for the installation and pump testing of exploratory wells at Waikele Gulch, Ewa, Oahu.

Last week, the DEA was submitted to the Office of Environmental Quality Control (OEQC) under Chapter 343, HRS, requirements. By that submittal, a notice of the DEA's availability will be published in the OEQC's August 8th Environmental Notice. Publication of the notice will initiate a 30-day public review period. Should you have any concerns or input on this project, we would appreciate receiving your comments in writing by September 8, 1999.

We thank you for your time and consideration. If there are any questions regarding the enclosed document, please do not hesitate to contact me at 521-5361.

Sincerely yours,

BELT COLLINS HAWAII LTD.

Glen T. Koyama

August 9, 1999

We do not have any comments. If you have any questions, please call Laverne Higa at 527-6246

GTK:lf

cc: Andrew Monden, DLNR

Enclosure

Ross S. Sasamura  
Director and Chief Engineer  
Department of Facility Maintenance

BELT COLLINS HAWAII LTD. • 680 ALA MOANA BOULEVARD, FIRST FLOOR, HONOLULU, HAWAII 96813-5406 U.S.A.  
TEL: 808 521-5361 FAX: 808 538-7819 EMAIL: hawaii@beltcollins.com WEB: www.beltcollins.com

PLANNING • ENGINEERING • LANDSCAPE ARCHITECTURE • ENVIRONMENTAL CONSULTING  
HAWAII • SINGAPORE • HONG KONG • AUSTRALIA • THAILAND • MALAYSIA • PHILIPPINES • GUAM • SEATTLE • SCOTTSDALE  
Belt Collins Hawaii is an Equal Opportunity Employer.

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 821  
HONOLULU, HAWAII 96809

REF:LD/WL-EK

OCT 26 1999

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

Mr. Ross S. Sasamura, Director and Chief Engineer  
Department of Facility Maintenance  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Sasamura:

**Draft Environmental Assessment  
Proposed Exploratory Wells at Waikele Gulch  
Ewa, Oahu, Hawaii, TMK 9-4-02: 8**

Thank you for your letter of August 9, 1999, commenting on the Draft Environmental Assessment (DEA) for the proposed exploratory well field at Waikele Gulch.

We acknowledge that you do not have any comments to offer at this time. Your review of this project is appreciated.

Should you have any questions or comments, please contact Mr. Andrew Monden, Chief Engineer at 587-0230.

Aloha,

Handwritten signature of Timothy E. Johns in cursive script.  
TIMOTHY E. JOHNS

c: Glen T. Koyama, Belt Collins Hawaii

DEPARTMENT OF PLANNING AND PERMITTING  
CITY AND COUNTY OF HONOLULU  
650 SOUTH KING STREET • HONOLULU, HAWAII 96813  
TELEPHONE: (808) 523-4414 • FAX: (808) 527-6743

RECEIVED

1999 AUG 16 A 11:49

BELT COLLINS HAWAII

JEREMY HARRIS  
MAYOR



JAN NAOE SULLIVAN  
DIRECTOR

LORETTA K.C. CHEE  
DEPUTY DIRECTOR

August 13, 1999

1999/CLOG-5322 (AC)  
99 EA Comments Zone 9

Mr. Glen T. Koyama  
Belt Collins Hawaii Ltd.  
680 Ala Moana Boulevard, First Floor  
Honolulu, Hawaii 96813-5406

Dear Mr. Koyama:

Draft Environmental Assessment (EA) For  
Proposed Exploratory Wells at Waikele Gulch  
Tax Map Key: 9-4-2: 8

We have reviewed the above document received on August 12, 1999,  
and have no comments to offer at this time.

Thank you for the opportunity to comment on the Draft EA. Should  
you have any questions, please contact Art Challacombe of our staff  
at 523-4107.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Jan Naoe Sullivan".

JAN NAOE SULLIVAN  
Director of Planning  
and Permitting

JNS:am

posse doc no. 6485



BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621  
HONOLULU, HAWAII 96809

REF:LD/WL-EK

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

OCT 26 1999

Ms. Jan Naoe Sullivan, Director  
Department of Planning and Permitting  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Ms. Sullivan:

**Draft Environmental Assessment  
Proposed Exploratory Wells at Waikele Gulch  
Ewa, Oahu, Hawaii, TMK 9-4-02: 8**

Thank you for your letter of August 18, 1999, commenting on the Draft Environmental Assessment (DEA) for the proposed exploratory well field at Waikele Gulch.

We acknowledge that you do not have any comments to offer at this time. Your review of this project is appreciated.

Should you have any questions or comments, please contact Mr. Andrew Monden, Chief Engineer at 587-0230.

Aloha,

  
TIMOTHY E. JOHNS

c: Glen T. Koyama, Belt Collins Hawaii

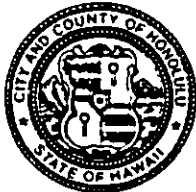
DEPARTMENT OF TRANSPORTATION SERVICES  
CITY AND COUNTY OF HONOLULU

PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813  
TELEPHONE: (808) 523-4529 • FAX: (808) 523-4730

1999 SEP -9 P 2:06

BELT COLLINS HAWAII

JEREMY HARRIS  
MAYOR



CHERYL D. SOON  
DIRECTOR

JOSEPH M. MAGALDI, JR.  
DEPUTY DIRECTOR

September 7, 1999

TPD8/99-03855R

Mr. Andrew Monden  
Department of Land and Natural Resources  
State of Hawaii  
1151 Punchbowl Street, Room 221  
Honolulu, Hawaii 96813

Dear Mr. Monden:

Subject: Waikele Gulch Exploratory Wells

In response to the August 5, 1999 letter from Belt Collins Hawaii Ltd., the draft environmental assessment for the subject project was reviewed. Based on the information provided, traffic operational problems are not anticipated as a result of this project.

Should you have any questions regarding this matter, please contact Faith Miyamoto of the Transportation Planning Division at 527-6976.

Sincerely,

Handwritten signature of Cheryl D. Soon in cursive.

CHERYL D. SOON  
Director

cc: Mr. Glen Koyama  
Belt Collins Hawaii Ltd.

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621  
HONOLULU, HAWAII 96809

REF:LD/WL-EK

OCT 26 1999

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

Ms. Cheryl D. Soon, Director  
Department of Transportation Services  
City and County of Honolulu  
711 Kapiolani Boulevard, Suite 1200  
Honolulu, Hawaii 96813

Dear Ms. Soon:

**Draft Environmental Assessment  
Proposed Exploratory Wells at Waikele Gulch  
Ewa, Oahu, Hawaii, TMK 9-4-02: 8**

Thank you for your letter of September 7, 1999, commenting on the Draft Environmental Assessment (DEA) for the proposed exploratory well field at Waikele Gulch.

We acknowledge your assessment that traffic operations should not be a problem as a result of the proposed project.

Should you have any questions or comments, please contact Mr. Andrew Monden, Chief Engineer at 587-0230.

Aloha,

  
TIMOTHY E. JOHNS

c: Glen T. Koyama, Belt Collins Hawaii

FIRE DEPARTMENT  
**CITY AND COUNTY OF HONOLULU**  
3375 KOAPAKA STREET, SUITE H425  
HONOLULU, HAWAII 96819-1869

RECEIVED

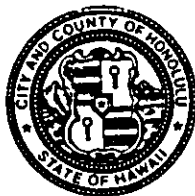
1999 SEP -2 P 1:22

BELT COLLINS HAWAII

ATTILIO K. LEONARDI  
FIRE CHIEF

JOHN CLARK  
DEPUTY FIRE CHIEF

JEREMY HARRIS  
MAYOR



August 30, 1999

Mr. Glen T. Koyama  
Belt Collins Hawaii Ltd.  
680 Ala Moana Boulevard  
Honolulu, Hawaii 96813-5406

Dear Mr. Koyama:

Subject: Draft Environmental Assessment  
Proposed Exploratory Wells at Waikele Gulch  
Ewa, Oahu, Hawaii  
TMK 9-4-002: 008  
HFD Internal No. OL 99-175

We received your letter dated August 5, 1999, regarding the Draft Environmental Assessment for the subject project. We have no objection to this project and do not foresee a significant impact with the fire services that we provide.

Should you have any questions, please call Acting Battalion Chief Alan Chong of our Fire Prevention Bureau at 831-7778.

Sincerely,

A handwritten signature in cursive script that reads "Attilio K. Leonardi".

ATTILIO K. LEONARDI  
Fire Chief

AKL/AC:bh

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 821  
HONOLULU, HAWAII 96809

REF:LD/WL-EK

OCT 26 1999

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

Mr. Attilio K. Leonardi, Chief  
Fire Department  
City and County of Honolulu  
3375 Koapaka Street, Suite H425  
Honolulu, Hawaii 96819-1869

Dear Chief Leonardi:

Draft Environmental Assessment  
Proposed Exploratory Wells at Waikele Gulch  
Ewa, Oahu, Hawaii, TMK 9-4-02: 8

Thank you for your letter of August 30, 1999, commenting on the Draft Environmental Assessment (DEA) for the proposed exploratory well field at Waikele Gulch.

We acknowledge that you have no objection to the proposed project and that it would not significantly impact your ability to provide fire service.

Should you have any questions or comments, please contact Mr. Andrew Monden, Chief Engineer at 587-0230.

Aloha,

Handwritten signature of Timothy E. Johns in cursive script.  
TIMOTHY E. JOHNS

c: Glen T. Koyama, Belt Collins Hawaii

**GTE Hawaiian Tel**

*Beyond the call*

RECEIVED

GTE Hawaiian Telephone Company  
Incorporated  
P.O. Box 2200 - Honolulu, HI 96841 - (808) 546-4511

1999 AUG 18 P 1:31

BELT COLLINS HAWAII

August 16, 1999

Attention: Glen T. Koyama  
Belt Collins Hawaii, Ltd.  
680 Ala Moana Boulevard  
Honolulu, Hawaii 96813

Dear Mr. Glen T. Koyama

Subject: ENVIRONMENTAL ASSESSMENT, PROPOSED EXPLORATORY WELLS, WAIKELE

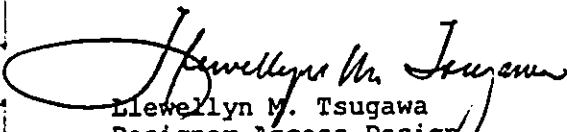
Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the Proposed Exploratory Wells at Waikele Gulch, Ewa.

I have reviewed the Draft Environmental Assessment. Per the draft, since cellular telephones are expected to provide communications for the construction crews during the construction and testing phase of the Proposed Exploratory Wells, at this time, GTE does not see a need to establish a poleline to provide telephone service to the construction site.

If the exploratory wells prove successful, and are outfitted and converted to production wells, another review of the telecommunications needs of the BWS will be required at that time.

If you have any questions, please call Mahi Tsugawa at 840-1448.

Sincerely,

  
Llewellyn M. Tsugawa  
Designer-Access Design  
Access Design & Construction

c:

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621  
HONOLULU, HAWAII 96809

REF:LD/WL-EK

OCT 26 1999

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

Mr. Llewellyn M. Tsugawa  
Access Design & Construction  
GTE Hawaiian Tel  
P.O. Box 2200  
Honolulu, Hawaii 96841

Dear Mr. Tsugawa:

**Draft Environmental Assessment  
Proposed Exploratory Wells at Waikele Gulch  
Ewa, Oahu, Hawaii, TMK 9-4-02: 8**

Thank you for your letter of August 16, 1999, commenting on the Draft Environmental Assessment (DEA) for the proposed exploratory well field at Waikele Gulch.

The telecommunication needs for the well production stage will be addressed in the project's next phase, which will include the preparation of an environmental document pursuant to Chapter 343, Hawaii Revised Statutes.

Should you have any questions or comments, please contact Mr. Andrew Monden, Chief Engineer at 587-0230.

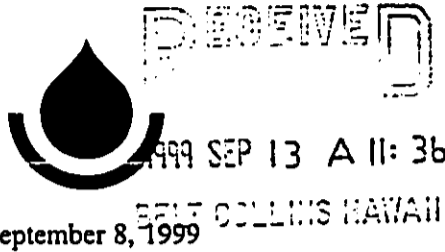
Aloha,

Handwritten signature of Timothy E. Johns in cursive.  
TIMOTHY E. JOHNS

c: Glen T. Koyama, Belt Collins Hawaii

**BOARD OF WATER SUPPLY**

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



JEREMY HARRIS, Mayor

EDDIE FLORES, JR., Chairman  
CHARLES A. STED, Vice Chairman  
JAN M.L.Y. AMII  
HERBERT S.K. KAOPUA, SR.  
BARBARA KIM STANTON

KAZU HAYASHIDA, Ex-Officio  
ROSS S. SASAMURA, Ex-Officio

CLIFFORD S. JAMILE  
Manager and Chief Engineer

Mr. Glen T. Koyama  
Belt Collins Hawaii, Ltd.  
680 Ala Moana Boulevard, First Floor  
Honolulu, Hawaii 96813-5406

Dear Mr. Koyama:

Subject: Your Transmittal of August 5, 1999 of the Draft Environmental Assessment for the Department of Land and Natural Resources Waikele Gulch Exploratory Well Project, Ewa, Oahu, TMK: 9-4-02: 08

Thank you for the opportunity to review the Draft Environmental Assessment (EA) for the proposed well development project.

We are opposed to the proposed project for the following reasons:

1. The proposed Waikele Gulch Well field would interfere with our Waipahu Wells IV facility by intercepting underflow and cause adverse increases in chloride levels at our existing wells. The Waipahu Wells IV facility was originally sited east of Waikele atop Manager's Drive. However, due to land acquisition constraints, the well site was relocated below H-1 Freeway, downgradient of the proposed Waikele Gulch Well field site which will essentially develop the same water.
2. The location in Waikele Gulch appears to be a problem due to flood control and geologic considerations. Weathering and erosion associated with creation of the gulch increases the likelihood that deeper well depths will be required. This in turn will result in greater penetration into the lens and probably result in higher salinity levels as shown by the existing old plantation wells of Oahu Sugar. The Board of Water Supply would not accept these wells if they are only marginal in yield or quality.

If you have any questions, please contact Barry Usagawa at 527-5235.

Very truly yours,

CLIFFORD S. JAMILE  
Manager and Chief Engineer

cc: Andrew Monden, Department of Land and Natural Resources



BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
P. O. BOX 621  
HONOLULU, HAWAII 96809

REF:LD/WL-EK

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

OCT 25 1999

Mr. Clifford S. Jamile, Manager & Chief Engineer  
Board of Water Supply  
City and County of Honolulu  
630 South Beretania Street  
Honolulu, Hawaii 96843

Dear Mr. Jamile:

**Draft Environmental Assessment  
Proposed Exploratory Wells at Waikele Gulch  
Ewa, Oahu, Hawaii, TMK 9-4-02: 8**

Thank you for your letter of September 8, 1999, commenting on the Draft Environmental Assessment (DEA) for the proposed exploratory well field at Waikele Gulch.

In response to your comments, we offer the following information:

1. Although the proposed exploratory wells will be generally upgradient of the Waipahu IV wells, the historic use of groundwater in this area indicates that both well facilities should be able to operate at acceptable salinity levels. During the plantation era, pumpage from wells within the gulch and in the near vicinity was on the order of 36 MGD, with most of this occurring at Oahu Sugar Company's four well batteries. In the post-plantation period, pumpage will be about 17 MGD, almost 20 MGD less than previously, and it would be better distributed than in the previous period (see attached table). Another 3 to 4 MGD pumped from the Waikele Gulch wells appears to be a reasonable proposal from this perspective.

Secondly, because the Department of Land and Natural Resources' proposed site and the Board of Water Supply's Waipahu IV well facilities would be on opposite sides of the valley fill in Waikele Gulch, the potential effect of the proposed wells on the west side of this fill will be less on wells, such as Waipahu IV, on the east side.

2. The proposed wells are located above the potential 100-year flood levels. Unfortunately, the Federal Emergency Management Agency Map's (Panel 110) detailed delineation with elevations, do not go far enough mauka to easily show this. However, a simple Manning's analysis using FEMA's 100- and 500-year flood peaks could be done as an easy, first approximation of the flood levels relative to the ground elevation at the well site.

The wells will be located as close to the west wall of the gulch as practical to minimize being situated on the valley fill and weathered surface that will have to be drilled through, but it still may be necessary to drill deeper than would be the case for a well located outside of the gulch. Available information from Oahu Sugar's existing WP-2 wells makai of the proposed wells suggests that this potentially deeper well depth will still produce water of acceptable quality.

We trust your concerns have been addressed. Should you have any questions or comments, please contact Mr. Andrew Monden, Chief Engineer at 587-0230.

Aloha,

  
TIMOTHY E. JOHNS

Enc.

c: Glen T. Koyama, Belt Collins Hawaii

**Comparison of Groundwater Pumpage in the Vicinity of  
Waikele Gulch Before and After the Closing of Oahu Sugar Company**

Well(s)		Allowable Pumpage in the 1970-80 Period (MGD)	Present/Future Allowable Pumpage (MGD)
Name	State Nos.		
<b>BWS Wells</b>			
Kunia III	2401-04 to -06	--	3 ± *
Hoaeae	2301-34 to -39	6.61	6.61
Waipahu II	2400-05, -06, & -08	--	2.10
Waipahu IV	2301-44 to -47	--	4 ± *
<b>OSCO Wells</b>			
WP-1	2301-01 to -10	1.64	1.15
WP-2	2301-21 to -32	11.78	0
WP-4	2301-11 to -20	6.13	0
WP-7	2300-07 to -09	10.73	0
<b>Totals</b>		<b>36.89</b>	<b>16.9 ±</b>

\* Pumpage estimated prior to the wells being put into use or an allocation obtained for the Commission on Water Resource Management.

Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu, HI 96840-0001



Scott W.H. Seu, P.E.  
Manager  
Environmental Department

RECEIVED

1999 AUG 18 P 1:39  
BELT COLLINS HAWAII

August 16, 1999

Mr. Glen T. Koyama  
Belt Collins Hawaii, Ltd.  
680 Ala Moana Boulevard, First Floor  
Honolulu, HI 96813-5406

Dear Mr. Koyama:

**Subject: Proposed Exploratory Wells at Waikele Gulch**

Thank you for the opportunity to comment on your June 1999 DEA for the Proposed Exploratory Wells at Waikele Gulch, as proposed by the Department of Land and Natural Resources. We have reviewed the subject document and have no comments at this time. However, it should be noted that there is no 3-phase electric service in the area for any permanent pumping requirements in the future.

HECO shall reserve further comments pertaining to the protection of existing powerlines bordering the project area until construction plans are finalized. Again, thank you for the opportunity to comment on this DEA.

Sincerely,

WINNER OF THE EDISON AWARD  
FOR DISTINGUISHED INDUSTRY LEADERSHIP



BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621  
HONOLULU, HAWAII 96809

REF:LD/WL-EK

OCT 26 1999

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

Mr. Scott W.H. Seu, P.E., Manager  
Environmental Department  
Hawaiian Electric Company, Inc.  
P.O. Box 2750  
Honolulu, Hawaii 96840-0001

Dear Mr. Seu:

**Draft Environmental Assessment  
Proposed Exploratory Wells at Waikele Gulch  
Ewa, Oahu, Hawaii, TMK 9-4-02: 8**

Thank you for your letter of August 16, 1999, commenting on the Draft Environmental Assessment (DEA) for the proposed exploratory well field at Waikele Gulch.

We acknowledge that you do not have any comments to offer at this time and that there is no 3-phase electrical service in the area for future permanent pumping requirements.

We are aware that there are no immediate adjacent service lines. The power requirement for the exploratory stage of this project will be met by employing diesel-powered electric generators. For the production stage, power supply requirement will be addressed as part of the project's next phase, which will include the preparation of an environmental document under the provisions of Chapter 343, Hawaii Revised Statutes.

Should you have any questions or comments, please contact Mr. Andrew Monden, Chief Engineer at 587-0230.

Aloha,

  
TIMOTHY E. JOHNS

c: Glen T. Koyama, Belt Collins Hawaii



**Amfac Land Company, Limited**

700 Bishop Street, Suite 501 • Honolulu, Hawaii 96813

RECEIVED

1999 AUG 30 P 1:53

BELT COLLINS HAWAII

August 25, 1999

Glen T. Koyama  
Belt Collins Hawaii Ltd.  
680 AlaMoana Blvd. First Floor  
Honolulu, Hawaii 96813-5406

**Re: Draft Environmental Assessment, Waikele Gulch, TMK 9-4-02-08**

Dear Mr. Koyama:

With respect to your request for comments on the above mentioned project, I submit to you the following:

1. The parcel of land being assessed, TMK 9-4-02-08, is not owned by Amfac Land Company, Limited, but by Oahu Sugar Company, Limited. The road access is also owned by Oahu Sugar Company, Limited and not Amfac Land Company, Limited.
2. On page 9, Phase II Production Wells, you state that if the exploratory wells prove successful, they will be outfitted and converted to production wells. Will Oahu Sugar be notified of this, and when would actual negotiations for the acquisition commence?
3. On page 10, all of the wells and improvements are owned by Oahu Sugar Company and not Amfac Land Company. WP-2 is not capped as you claim on page 10, and WP-4 is going to be capped, but is not yet.
4. On page 12, the project site is owned by Oahu Sugar Company, Limited and not Amfac Land Company, Limited.
5. On page 17, you say that "The unimproved road is located within an easement in favor of isolated property owners within the gulch". We are not aware of this and would like to know who the other owners are.
6. In your report you mention impacts to the surrounding areas and property owners. Will there be any work done with respect to the impacts that the proposed well field may have on Oahu Sugar's property?

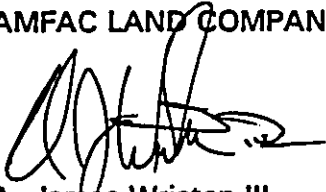
Telephone: 808-543-8520 • Facsimile: 808-543-8528

Glen T. Koyama  
Page 2  
August 25, 1999

Thank you for allowing us to comment on the draft environmental assessment, please feel free to call me at 543-8510 if you have any questions or concerns.

Very truly yours,

AMFAC LAND COMPANY, LIMITED



A. James Wriston III  
Manager of Land Administration

cc: Tamara Edwards

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

REF:LD/WL-EK

P. O. BOX 621  
HONOLULU, HAWAII 96809

OCT 26 1999

TIMOTHY E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
JANET E. KAWELO

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
ENGINEERING BRANCH  
PLANNING BRANCH  
TECHNICAL & SUPPORT BRANCH  
STATE PARKS

Mr. A. James Wriston III, Manager  
Land Administration  
Amfac Land Company, Limited  
700 Bishop Street, Suite 501  
Honolulu, Hawaii 96813

Dear Mr. <sup>Jim</sup>Wriston III:

Draft Environmental Assessment  
Proposed Exploratory Wells at Waikele Gulch  
Ewa, Oahu, Hawaii, TMK 9-4-02:8

Thank you for your letter of August 25, 1999, commenting on the Draft Environmental Assessment for the proposed exploratory well field at Waikele Gulch. Your comments and the impacts to Amfac Land Company, Limited and/or Oahu Sugar Company's land will be incorporated in the Final EA.

Should the exploratory wells prove suitable for development into production wells, the State will negotiate with the landowner to acquire the required access and land prior to the development of the wells. We are unable to provide you with a timetable for the actual negotiations for the access and land acquisition at this time. However, we will provide you with a projects schedule by November 1999 and the land acquisition timetable as it becomes available.

Should you have any questions or comments, please contact Mr. Andrew Monden, Chief Engineer at 587-0230.

Aloha,

A handwritten signature in cursive script that reads "Tim Johns".

TIMOTHY E. JOHNS

c: Glen T. Koyama, Belt Collins Hawaii



**APPENDIX**

**Letters Received During Early Consultation Period**



DEPARTMENT OF THE NAVY  
COMMANDER  
NAVAL BASE PEARL HARBOR  
517 RUSSELL AVENUE  
PEARL HARBOR, HAWAII 96860-5020

RECEIVED

1999 JUN 29 P 1:15

BELT COLLINS HAWAII  
IN REPLY REFER TO:

5090

Ser N465/10114

June 25, 1999

Mr. Glen T. Koyama  
Belt Collins Hawaii Ltd.  
680 Ala Moana Boulevard, First Floor  
Honolulu, Hawaii 96813-5406

Dear Mr. Koyama:

Subject: Environmental Assessment, Proposed Exploratory Well, Waikele Oahu, Hawaii

The Navy received your request by letter of June 8, 1999 to provide preliminary comments or to be a consulted party during the preparation of the project's Environmental Assessment. The Navy has reviewed the brief description of the proposed exploratory well and has the following comment:

The Navy Public Works Center, Pearl Harbor owns an existing drinking water well located approximately 2800-feet mauka of the proposed exploratory well within the U.S. Naval Magazine Lualualei, Waikele Branch. If the Department of Land and Natural Resources were interested, the Navy would be willing to provide historical data or consider the possible use of this inactive well for monitoring purposes under negotiated terms and conditions.

If we can be of further assistance, please contact Mr. Randy Miyashiro, Regional Environmental Coordinator for Natural/Cultural Resources and NEPA at 471-1171, extension 233.

Sincerely,

C. K. YOKOTA  
Director  
Regional Environmental Department  
By direction of  
Commander, Navy Region Hawaii

Copy to:  
CINCPACFLT (N465)  
PWC Pearl Harbor (Code 650)



RECEIVED

1999 JUL -6 P 2: 30

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

LAND DIVISION  
P.O. BOX 621  
HONOLULU, HAWAII 96809  
JUL 2 1999

AQUACULTURE DEVELOPMENT  
PROGRAM  
AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
STATE PARKS  
WATER RESOURCE MANAGEMENT

Ref:PS:EH

Mr. Glenn Koyama  
Belt Collins Hawaii LTD.  
680 Ala Moana Boulevard  
Honolulu, Hawaii 96813-5406

Dear Mr. Koyama:

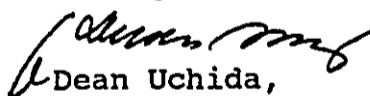
Subject: Preparation Notice for Environmental Assessment  
Proposed Exploratory Well, Waikele, Oahu

We have reviewed the subject project description and have no  
comments to offer at this time.

Thank you for the opportunity to review the proposed project.

Should you have any questions or require further assistance,  
please contact staff planner Ed Henry at 587-0380.

Very truly yours,

  
Dean Uchida,  
Administrator

BENJAMIN J. CAYETANO  
GOVERNOR



RECEIVED

KAZU HAYASHIDA  
DIRECTOR  
DEPUTY DIRECTORS  
BRIAN K. MINAII  
GLEN M. OKIMOTO

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

1999 JUN 22 P 1:50

IN REPLY REFER TO:  
BELT COLLINS HAWAII HWY-PS  
2.4259

JUN 21 1999

Mr. Glen T. Koyama  
Belt Collins Hawaii, Ltd.  
680 Ala Moana Boulevard  
Honolulu, Hawaii 96813

Dear Mr. Koyama:

Subject: Environmental Assessment (EA)  
Proposed Exploratory Well  
Waikele, Oahu, Hawaii

Thank you for your transmittal of June 8, 1999, requesting our preliminary comments regarding the above project.

We will provide our comments when the Draft EA is available to us for review.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Kazu Hayashida".

KAZU HAYASHIDA  
Director of Transportation

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



RECEIVED

MATTHEW E. JOHNS, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
DEPUTIES  
JANET E. KAWELO

STATE OF HAWAII 1999 JUL -1 P 1:08

DEPARTMENT OF LAND AND NATURAL RESOURCES BELT COLLINS HAWAII

HISTORIC PRESERVATION DIVISION  
Kakuhikewa Building, Room 555  
501 Kamohala Boulevard  
Kapolei, Hawaii 96707

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND  
STATE PARKS  
WATER RESOURCE MANAGEMENT

June 25, 1999

Glen T. Koyama  
Belt Collins Hawaii Ltd  
680 Ala Moana Boulevard, 1st Floor  
Honolulu, Hawaii 96813-5406

LOG NO: 23702 ✓  
DOC NO: 9906EJ29

Dear Mr. Koyama:

**SUBJECT: Chapter 6E-8 Historic Preservation Review - DLNR Proposed Exploratory Well at Waikele Gulch  
Waikele, 'Ewa, O'ahu  
TMK: 9-4-002:008**

Thank you for the opportunity to provide comment on the proposed exploratory well in Waikele Gulch. Our review is based on historic reports, maps, and aerial photographs maintained at the State Historic Preservation Division; no field inspection was made of the subject parcel. A review of our records shows that there are no known historic sites at the project location. Aerial photographs taken in the 1970s show that this area, located on the upper edge of Waikele gulch, was once cleared during commercial cultivation of sugar cane. Because it is unlikely that significant historic sites will be found in the project area due to prior sugar cane cultivation, we believe that this project will have "no effect" on such sites.

If you have any questions please call Elaine Jourdane at 692-8027.

Aloha,

Don Hibbard, Administrator  
State Historic Preservation Division

EJ:jk

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



RECEIVED

BRUCE S. ANDERSON, Ph.D., M.P.H.  
DIRECTOR OF HEALTH

1999 JUL 14 A 11:39

STATE OF HAWAII BELT COLLINS HAWAII  
DEPARTMENT OF HEALTH  
P.O. BOX 3378  
HONOLULU, HAWAII 96801

In reply, please refer to:  
File:

July 12, 1999

99-118/epo

Mr. Glen T. Koyama  
Belt Collins Hawaii Ltd.  
680 Ala Moana Boulevard, First Floor  
Honolulu, Hawaii 96813-5406

Dear Mr. Koyama:

Subject: Pre-Environmental Assessment Comments  
Proposed Exploratory Well  
Waikele Gulch, Oahu

Thank you for allowing us to review and comment on the subject project. We have the following comments to offer:

The proposed well is within one (1) mile of the Waipahu II Wells (Well Numbers 2400-05 and 2400-06), which currently show traces of the chemical contaminants EDB and TCP. These wells are being treated to remove these contaminants.

The proposed well will tap into the same aquifer as the Waipahu II Wells and will probably require treatment also.

If you have any questions, please contact Mr. Glen Fukunaga of the Environmental Planning Office at 586-4337.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gary Gill".

GARY GILL  
Deputy Director for  
Environmental Health

c: SDWB

PHONE (808) 594-1888



STATE OF HAWAII  
OFFICE OF HAWAIIAN AFFAIRS  
711 KAPI'OLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813

RECEIVED

1999 JUN 29 P 1:18 FAX (808) 594-1865

BELT COLLINS HAWAII

June 24, 1999

Glen T. Koyama  
Belt Collins Hawaii Ltd.  
680 Ala Moana Blvd., First Floor  
Honolulu, HI 96813-5406

doc. # PCR 46

Re: Pre-consultation for Environmental Assessment of Proposed Exploratory  
Well at Waikele, Oahu

Dear Mr. Koyama:

Thank you for the opportunity to provide preliminary comments on the draft environmental assessment for the Proposed Exploratory Well at Waikele, Oahu. The Office of Hawaiian Affairs (OHA) has the following comments about the proposed project.

OHA would like the draft EA to address the possibility that native Hawaiian gathering rights may exist on the project site. A recent Hawaii Supreme Court decision makes it clear that the existence of native rights must be addressed. We suggest that you seek expert opinion among the local Hawaiian community about this issue.

In addition, the draft EA should deal with widely-reported suspicions that the Waipahu/Village Park area may have been affected by the 1977 ethylene dibromide spill in Kunia. As you are no doubt well aware, Village Park residents are concerned that their current water supply and/or soil is contaminated. According to your location map, the well will be in the vicinity of Village Park, Waikele, and Waipahu, presumably servicing these communities and/or others nearby and down-gradient. However, providing yet another suspected source of pesticide-contaminated water would not be in the best interests of those communities and may very well generate public outcry. Adequate and

Mr. Glen T. Koyama  
Belt Collins Hawaii Ltd.  
May 24, 1999  
Page 2

ample water quality tests and feedback to the communities involved should be stressed very early in the process, prior to – or at least concurrent with - large amounts of time, effort, and money spent in the drilling and pump test phase.

Thank you for your attention in this matter. Should you have any questions concerning our comments, please contact Nami Ohtomo, Natural Resources Specialist at 594-1755. Please refer to the document number noted at the top of this letter in any future correspondence.

Sincerely,



Colin Kippen  
Deputy Administrator



Sebastian Aloit  
Land and Natural Resources Division Officer

cc: BOT

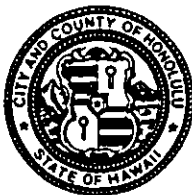


FIRE DEPARTMENT  
**CITY AND COUNTY OF HONOLULU**  
3375 KOAPAKA STREET, SUITE H425  
HONOLULU, HAWAII 96819-1869

RECEIVED

1999 JUN 21 A 11:32  
BELT COLLINS HAWAII

JEREMY HARRIS  
MAYOR



ATTILIO K. LEONARDI  
FIRE CHIEF

JOHN CLARK  
DEPUTY FIRE CHIEF

June 14, 1999

Mr. Glen T. Koyama  
Belt Collins Hawaii Ltd.  
680 Ala Moana Boulevard, First Floor  
Honolulu, Hawaii 96813-5406

Dear Mr. Koyama:

Subject: Environmental Assessment  
Proposed Exploratory Well  
Waikele, Oahu, Hawaii  
HFD Internal No. OL 99-127

We received your letter dated June 8, 1999, regarding our preliminary comments on the proposed project. We have no requirements on the preliminary drilling and pump tests to determine the well's feasibility as a potable water supply.

If the well is determined to be feasible for potable water supply, then purification chemicals used to meet federal water standards will need to comply with Article 80, Hazardous Materials, of the State Fire Code and the Fire Code of the City and County of Honolulu. Article 80 will assist you in the use, handling, and storage requirements for chlorine gas, sodium hypochlorite, or calcium hypochlorite.

Should you have any questions, please call Battalion Chief Charles Wassman of our Fire Prevention Bureau at 831-7778.

Sincerely,

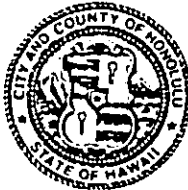
  
JOHN CLARK  
Acting Fire Chief

JC/CW:bh

POLICE DEPARTMENT  
**CITY AND COUNTY OF HONOLULU**  
801 SOUTH BERETANIA STREET  
HONOLULU, HAWAII 96813 - AREA CODE (808) 529-3111  
<http://www.honolulu.org>

RECEIVED  
1999 JUN 21 A 11:32

JEREMY HARRIS  
MAYOR



BELT COLLINS HAWAII

LEE D. DONOHUE  
CHIEF  
WILLIAM B. CLARK  
MICHAEL CARVALHO  
DEPUTY CHIEFS

OUR REFERENCE CS-DL

June 15, 1998

Mr. Glen T. Koyama  
Belt Collins Hawaii Ltd.  
680 Ala Moana Boulevard, First Floor  
Honolulu, Hawaii 96813-5406

Dear Mr. Koyama:


Thank you for the opportunity to review and comment on the Environmental Assessment for the Proposed Exploratory Well in Waikele.

This project should have no major impact on the operations of the Honolulu Police Department.

Should you have any questions, please call me at 529-3255 or Captain Darryl Perry of District 3 at 455-9055.

Sincerely,

LEE D. DONOHUE  
Chief of Police

BY   
EUGENE UEMURA  
Assistant Chief  
Support Services Bureau

DEPARTMENT OF DESIGN AND CONSTRUCTION  
CITY AND COUNTY OF HONOLULU

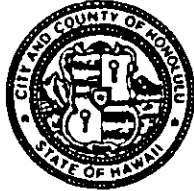
650 SOUTH KING STREET, 2ND FLOOR  
HONOLULU, HAWAII 96813  
PHONE: (808) 523-4564 • FAX: (808) 523-4567

RECEIVED

1999 JUN 16 A 11:43

BELT COLLINS HAWAII

JEREMY HARRIS  
MAYOR



RANDALL K. FUJIKI, AIA  
DIRECTOR

ROLAND D. LIBBY, JR., AIA  
DEPUTY DIRECTOR

DCP 99-399

June 15, 1999

Mr. Glen T. Koyama, Project Manager  
Belt Collins Hawaii Ltd  
680 Ala Moana Boulevard, First Floor  
Honolulu, Hawaii 96813-5406

Dear Mr. Koyama:

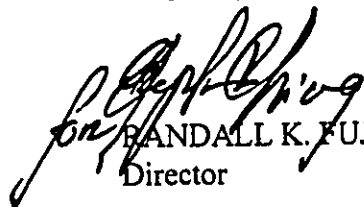
Subject: Environmental Assessment - Proposed Exploratory Well

In response to your letter dated June 8, 1999 regarding the Environmental Assessment - Proposed Exploratory Well, Waikele, Oahu, Hawaii, we have no comments at this time.

Thank you for allowing us the opportunity to comment on the notice of preparation of the Draft EA. We look forward to reviewing the draft EA when it is completed.

If there are any questions, please call Lance Manabe at 523-4551.

Very truly yours,

  
RANDALL K. FUJIKI  
Director

DEPARTMENT OF TRANSPORTATION SERVICES  
**CITY AND COUNTY OF HONOLULU**

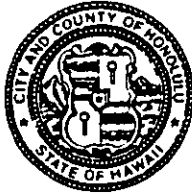
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813  
PHONE: (808) 523-4529 • FAX: (808) 523-4730

RECEIVED

1999 JUL 19 A 10:20

BELT COLLINS HAWAII

JEREMY HARRIS  
MAYOR



CHERYL D. SOON  
DIRECTOR

JOSEPH M. MAGALDI, JR.  
DEPUTY DIRECTOR

TPD6/99-02885R

July 15, 1999

Mr. Glen T. Koyama  
Belt Collins Hawaii Ltd.  
680 Ala Moana Boulevard, First Floor  
Honolulu, Hawaii 96813-5406

Dear Mr. Koyama:

Subject: Waikele Gulch Exploratory Well

In response to your June 8, 1999 letter, the information provided regarding the subject project was reviewed. It does not appear that the project will cause any traffic operational concerns.

Should you have any questions regarding this matter, please contact Faith Miyamoto of the Transportation Planning Division at 527-6976.

Sincerely,

Handwritten signature of Cheryl D. Soon in cursive.

CHERYL D. SOON  
Director